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INTERNATIONAL TROPICAL TIMBER ORGANIZATION

PRE-PROJECT REPORT

REVIEW OF THE ITALIAN TIMBER MARKET – WITH FOCUS ON TROPICAL TIMBER

PREPARED FOR ITTO

BY

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Table of contents

List of Appendices

List of Figures

List of tables

List of acronyms and abbreviations

APAT	Italian Agency for the Protection of the Environment and for Technical Services
APEC	Asian-Pacific Economic Cooperation
ARPA	Italian regional environmental protection agency
APPA	Italian provincial environmental protection agency
ASEAN	Association of South East Asian Nations
CATAS	Research and development institute and laboratory for testing furniture and wood-based products
CBD	Convention on Biological Diversity
CEM	Committee on Economic Information and Market Intelligence
CFI	Committee on Forest Industry
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CN	Combined Nomenclature
CNEL	National Council for Economics and Labour
CoC	Chain-of-Custody

CRF	Committee on Reforestation and Forest Management
DIY	Do It Yourself
EEA	European Economic Area
EEC	European Economic Community
EFI	European Forest Institute
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FAOSTAT- Forestry	Food and Agriculture Organization of the United Nations Statistics Forestry
FLEGT	Forest Law Enforcement, Governance and Trade
FSC	Forest Stewardship Council
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GSP	Generalized System of Preferences
IAD	Institutional Analysis and Development
IFF	Intergovernmental Forum on Forest
IPCC	International Panel on Climate Change
IPF	Intergovernmental Panel on Forest
ISO	International Organization for Standardization
ISTAT	National Institute of Statistics (Italy)
ITTA	International Tropical Timber Agreement
ITTC	International Tropical Timber Council
ITTO	International Tropical Timber Organization
MERCOSUR	Southern Common Market
NAFTA	North American Free Trade Agreement
NGO	Non-Governmental Organization
NTM	Non-Tariff Measures
OECD	Organization for Economic Co-operation and Development
OEEC	Organization for European Economic Co-operation
PEFC	Programme for the Endorsement of Forest Certification schemes
R&M	Repair and Maintenance
RDP	Rural Development Plans
SAD	Single Administrative Document
SPGL	(see Appendix 5)
SPS	Sanitary and Phytosanitary Measures
TARIC	Information system of Taxation and Customs Union of EU
TBT	Technical Barriers to Trade
TQM	Total Quality Management
TRIMS	Agreement on Trade Related Investment Measures
TRIPS	Trade – Agreement on Intellectual Property Rights
TRQ	Tariff quotas
UK	United Kingdom
UN	United Nation
UNCED	United Nations Conference on Environment and Development
UNCTAD	United Nations Conference on Trade and Development
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forest
USSR	(former) Soviet Union
WTO	World Trade Organization
WWF	World Wild Fund for Nature

Foreword

This report is the result of teamwork where two groups have been set up. The Swedish team consists of Dr Matti Flinkman, Dr Hans-Olof Nordvall and myself. Essentially, the data collection and data reviewing was carried out by Nordvall, draft writing by Flinkman and my role has been to organize the work, participate in meetings and review the draft reports at various stages. The Italian team is from the University of Padova under the kind leadership of Professor Davide Pettenella. Dr Laura Secco and doctoral student Gianluca Santi have participated in the interview phase by first reviewing the questionnaires, then carrying out interviews and finally writing interview reports. In the ministero delle Attività Produttive, Mr David Ascarelli has kindly helped us with issues related to trade. Data have been provided by Federlegno-Arredo and EFI. Mrs. Elena Vinci-Hytter at Växjö University has helped us with translation from Italian to Swedish or English. I want to express my warmest thanks to all that have contributed to the report. In particular I will express my deepest admiration and gratitude to my Italian colleagues for their energy and enthusiasm, in particular Laura for her dedication. Last but not least I am greatly indebted to the Italian companies that have responded to our demand for information on their activities. I hope that this report is not only of value for ITTO but also for those who have participated in this study and other actors on the Italian forest and wood industry arena.

Anders Baudin, Professor

Highlights

The Italian wood products industries, while being large net importers of raw material and primary processed products, manufacture for the domestic and export market highly value added products such as wooden furniture and mouldings. The total net import of wood and wood products amounts to 2.3 billion Euros, but considering only highly value-added wooden furniture Italy turns out to be a world leading net exporter at the level of 5.1 billion Euros in 2003.

Regarding the shares of different tropical wood products for exports and imports, respectively, it is obvious that

- The (value) shares of tropical species are relatively low, approximately 15 %, for exports and imports of industrial roundwood and sawnwood, and for veneer exports,
- For veneer imports, as well as for exports and imports of plywood the recorded shares of tropical species are around 25 %, and
- For exports and imports of secondary processed products, respectively, the shares of tropical species are very low, only a few per cent.

The imports of tropical products to Italy are dominated by Africa that shows a slight decline over the recent years ending up in a market share of 65 % in 2003. Other important sourcing regions for tropical wood products are Asia and Central and South America that recently have gained increasing market shares and cover together ¼ of Italian imports in 2003.

The imports of non-tropical wood products to Italy originate to large degree from Europe that accounts for 82 % of Italian imports. Sourcing from the EU tends, however, to decline while it is increasing from Central and East Europe.

The exports of tropical and non-tropical wood products from Italy are primarily directed to the EU, Other Europe and Central and East Europe. Altogether almost ¾ of both tropical and non-tropical exports, respectively, cover these sub-regions. The EU's share is slightly more than 50 % in 2003 with a decreasing tendency for non-tropical. The exports of tropical wood products from Italy to the EU remain at stable level of almost 60 %.

Regarding the EEA[1]-trade in processed wood products some conclusions are:

- The region is a net importer of all kind of primary processed wood products,
- Typically, the import share of the internal EEA imports of coniferous industrial roundwood and sawnwood is rather high, approximately 50 % or more whereas of NC products only 1/3 or 1/4 is sourced within this region,
- Considering non-tropical veneer and plywood imports the share of internal imports decreases below 50 % and is approaching 1/3 or 1/4 when tropical veneer and plywood are taken into account,
- With respect to semi-processed wooden products the EEA is also net importer except from wooden kitchen and office furniture that show a slightly positive trade balance,
- In value terms the internal EEA imports are constituted of 50 % or more of the total imports of wooden manufacture and wooden furniture, respectively. East Europe is an important external sourcing region for all sub-products of wood manufacture and furniture even if supplies from all regions also occur.

[1] European Economic Area

Regarding trade impediments Italy as a member state of the EU is applying common tariffs and other non-tariff measures agreed at the EU level and internationally.

- Currently the import duties and other measures for imports from third countries are relatively limited, and these are mainly recorded for wood-based panels such as veneers but especially plywood products of tropical wood.

However, the development of legislative framework for procurement of wood and wood products in progress at the national, but even at the EU level and internationally will have an increasing impact on trade in the future.

- As a consequence of increasing demand for multiple uses of forests the output of wood for industrial processing is expected in the long run to decrease in Italy, and accordingly the need of imported wood will increase.
- Therefore, in order to enable sustainable supplies from tropical sources, and elsewhere, it is considered necessary to establish, taking into account the socio-economic conditions of client countries, delivery systems that secure the sustainability of wood resources in these countries. In line with these intentions to combat illegal trade the FLEGT-initiative will be accomplished through concerted actions that aim at harmonizing classification systems and improving the enforcement.

The current institutional development requires from actors involved in tropical wood products manufacturing and trade targeting the Italian and the EU markets that they should among others:

- Move successively towards production and trading of value-added products,
- Become involved in the legislative processes, e.g., FLEGT, and
- Network with producers, traders and customers in order to enhance competitiveness.

Finally, an implication for ITTO and other involved organizations with interests for country studies like the present one is that more focus should be put on developing methods for data gathering from small and medium size woodworking and trading enterprises due to their considerable branch output. The study has identified segments, from which the information on tropical timber is not sufficient in order to enable a comprehensive description of tropical timber issues in Italy. For example, drawbacks are:

(i) lack of reliable statistics on forest cover, removals and use of timber, and in particular the use of tropical timber in several sub-branches of primary and secondary processing,
(ii) lack of production statistics on the use of substituting and/or complementary raw materials within the above named sub-branches as well as in the construction of residential and non-residential buildings, civil engineering, etc.

To enable a comprehensive description of tropical timber issues along the wood value chain it is therefore necessary to carry out more detailed analyses. As Italy and the EEA will be substantial net importers of tropical wood and wood products in the future it is proposed that similar country studies should be conducted in several EU states with considerable imports from the tropics.

Executive Summary

The commitment

The present study is commissioned by the Committee on Economic Information and Market Intelligence (CEM) of the International Tropical Timber Organisation (ITTO) based on the approval of the International Tropical Timber Council (ITTC) at its 36th Session held in Interlaken, Switzerland, in July 2004.

Objectives

The consultancy task comprises the following main topics:

- *Compilation and review of information* on imports, exports, production and consumption of industrial roundwood, sawnwood, veneer, plywood, builders' joinery, flooring, mouldings, millwork and wood furniture for species of tropical hardwoods, softwoods and temperate hardwoods in Italy as well as in the adjacent region (EU),
- *Consumption analysis* of tropical timber for each of the production/consumption centres and Italy itself including an analysis of tropical timber use relative to competing products, and product specifications and quality requirements,
- *Identification of possible import impediments* including tariffs, non-tariffs and other measures with impact on imports, as well as *perceptions/views* on likely future trends for tropical timber and tropical value-added wood products in Italy.

The full description of the terms of reference for the project (Project PP-A/36-149) is given in Appendix 1.

Approach

The conceptual framework for the study of Italian markets for timber – with focus on tropical timber – is constituted of five 'action arenas'. *Arenas are the economic space in which actors with similar business objectives carry out broadly similar actions*. Depending on the product considered or the market actor, domestic or international, the identified arenas are:

- Intermediary provision of goods and services from importers, agents, wholesalers, retailers, and other suppliers of products;
- Wood resource provision where actions related to forestry take place with product output in saw logs and veneer logs;
- Primary processing where the raw material is processed into intermediate and/or end-use products such as sawnwood, veneer, plywood;
- Secondary processing of the intermediate and/or semi-finished goods to produce finished items for end-use purposes such as builders joinery, flooring, mouldings, millwork, furniture and wooden parts for furniture; and
- End uses of products named above mainly for construction purposes and furnishing.

Trade is a common theme that will be discussed when the arenas are presented. In particular, the intermediary providers are involved in trading. The wood market and the actors form a demand - supply chain for forest products. From the methodological viewpoint the identified chains, depicted in their widest form as a network, also serve as an entry to the analysis of the Italian market for tropical timber, which is one of the focal points of the project. The analysis is accomplished by applying a modified Institutional Analysis and Development (IAD) framework for the description of Italian forest industry cluster, in terms of (i) structural aspects from the point of view of forestry, wood working industry, etc., as well as (ii) its institutional setting regarding legislative and regulatory provisions, acts and laws with impact

on the functioning of the cluster. In addition, the institutions, government and NGOs with commitment to control and enforce as well as to support will be identified.

The second phase of the description of the Italian forest industry cluster is a product-oriented technical analysis focusing on the recent developments of production, imports, exports and apparent consumption of various wood products with emphasis on the tropical timber and secondary processed wood products. The products in focus are industrial roundwood, saw logs and veneer logs, veneer, plywood, builders' joinery, flooring, mouldings, millwork, wooden parts for furniture, and wooden furniture. The operative methods applied are: (i) desk research (analysis of official data from available sources) and (ii) a survey among importers, producers and relevant branch organisations.

Overall economic development of Italian society

The development of Italian economy is characterised by weak economic performance in comparison with other European countries. The GDP growth rate has been lower than the average annual change of the Euro-area GDP. Contributing internal factors are, among others, Italy's ageing population. According to population projections Italy has also one of the highest old-age dependency ratios among OECD countries and this ratio is forecast to more than double by 2050. One of the consequences of ageing population is that there will be less young people who contribute by tax payments to government income, which in turn will be eroded by considerable pension contribution rates payable to elderly people. This in turn weakens the purchasing power of consumers with a substantial risk for a weak economic development.

In recent years the public spending, in particular in the construction sector, has boosted the demand but according to available forecast its effect on demand will be levelled off within some years. In general, the projections of GDP for the next coming years seem to indicate a moderate development of Italian economy at the level of approximately 2 per cent change at constant prices.

Institutional framework for supply chains (trade) of wood and wood products

The study highlights institutional conditions and structure of the four arenas that constitute the wood supply chains. These reviewed conditions are associated with foreign and domestic trade issues and environmental considerations. Due to globalized markets for wood products the initial focal point is the international trade agreements and multilateral environmental and welfare development agreements with impact on Italian trade and production of wood products. The core of international agreements relies on the WTO-platform for trade liberalization and a set of multinational agreements for environmental protection.

These international agreements are then applied in certain geographical regions by co-operation bodies, like the EU, resulting in more operative internal as well as external trade regulations in terms of tariffs and other non-tariff measures. Parallel with these overall agreements for trade with third countries the regions, like the EU, are preparing (or have prepared) internal codex for trade liberalization. Since 1968 the EU is a custom union where internal tariffs are abolished.

Currently, as of March 2005, there are import duties payable for sawnwood at the level of 2 % to 2.5 %. For veneers the range is wider as well as the rates higher from 3 % to 6 %. The highest rates up to 10 % are recorded for flooring products, parquet strips and friezes, mouldings, etc., and plywood from tropical sources. Furthermore, imports from some

countries are subject to additional percentages payable according to the tariff preference procedure. These rates vary, in general, from null to 6.5 %. Furnishing products and parts of furniture are rarely subject to import duties and when applicable the levels are low, around 2 % to 3 %. This is also the case for prefabricated buildings.

Often imports are also subject to non-tariff measures (NTMs) that can be grouped within four main sub-groups: (i) core NMTs involving price and quantity control measures, (ii) non-core border NMTs associated with para-tariff measures, financial measures, custom procedures, etc., (iii) standards and certification, and finally (iv) domestic governance that cover, among others, law enforcement issues, restrictions for investments, distribution and transport, public procurement issues and issues related to government assistance.

A slightly similar impact on NTMs is foreseen from the work initiated by the EU on Forest Law Enforcement Governance and Trade (FLEGT) issue. The FLEGT is a EU attempt to combat the problem of illegal logging (and trade to the EU) in supply countries.

Parallel to this effort internally within the EU, as well as in Italy, is the implementation of certification systems of FSC and PEFC to the forestry part of the supply chain. Forest certification, however, is a complicated procedure because the impact of forest operations on nature and environment is its focus (Klingberg, 2003). Forest certification deals only indirectly with the product itself (extracted wood in various forms), but rather with forest growth, harvest systems and the conditions of land after logs are removed. Generally, the rate of certified forests is rather low in Italy, in particular based on FSC system. The PEFC certification, in contrast, is totalling in 350 000 ha, that also is quite a low figure. An accompanying measure provided by these organisations and mainly with impact on wood imports is the chain-of-custody (CoC) identification process. For CoC-certificated products the sourcing and transportation/processing can be verified through the entire supply chain. There are obvious similarities between the CoC-identification and the EU based FLEGT-process. However, as to the certification rate of forestry and CoC certification in Italy, as well as generally in Southern Europe, the coverage of these systems belongs to the lowest among the countries in the UNECE region (FAO, 2004).

Certification of industrial processes and products – also along the entire supply chain – using, for example, the ISO-system, is today an established procedure than can be compared with forest certification. In Italy this is quite a new concept introduced only few years ago. In line with this standardization of processes and products even construction products are formally subject to the CE marking system at EU level since 2004. A similar EU-standardization of furniture and furniture manufacturing processes is in-use.

For the institutional framework for wood supply from foreign sources, it is obvious that the multinational, European and Italian institutional measures, respectively, are affecting wood product flows to Italy. Consequently Italy, as all EU states, is harmonizing their systems for standardization and maintenance of trade with third countries into a coherent and comprehensive system in the EU-scale. As a result of this process the national bodies are in a sense being transferred into operative arms of the European Commission, Parliament, and other central bodies of the EU.

Even the domestic supply of wood raw material, as well as supply of wood products upstream along the value chain, is accordingly influenced to an increasing degree by the EU-wide regulation systems. These are together with, e.g. the national Forest Policy Act maintained by

national bodies like Ministry for Agricultural Policies, Italian Agency for the Protection of the Environment and for Technical Services (APAT), etc.

Structure and 'workings' of forestry and other sub-sectors of the wood value chain

Intermediary Provision (Trading structure)

The actors are mainly dealing with pure trading activities and to a minor degree with other processing of wood. Typically, traders in wood and wood products purchase dominating share of their products from abroad through exporters/importers/agents and/or directly from producers abroad. Depending on the strategic focus of a firm the sourcing of products covers a varying share of tropical, temperate and softwoods through a network of different channels. No general pattern can be recognized in this respect. Regarding selling, pure traders tend, besides supplying a considerable share of their products to domestic markets, also deal with exports to a higher degree than traders with some processing included in their business. The latter are more oriented towards supplying the domestic demand. Further supply to clients along the wood value chain occurs through a network of wholesalers and retailers to consumers. The Italian wood supply network is very fragmented at the moment because large European retail chains have not (yet) entered Italian wood market.

In general, transactions are based on personal contacts between buyers and sellers. Obviously, the Internet for e-commerce is not yet applied in any large scale, but there are exceptions. Mostly, the Internet is used for getting more generic information about business partners beforehand.

Forestry - Domestic Wood Supply

The total forest cover of Italy accounts for 29 % of the total land area and amounts to 8.7 million ha of which high forests constitute approximately 25 %, coppices 40 %, and other forests 25 %. The remaining share of about 5 % constitutes of forests plantations for extensive timber production and non-timber products, e.g. cork, chestnuts. Approximately 60 % of the forests are within mountain areas whereas about 35 % within hilly and the remaining 5 % plain regions.

The annual harvesting over the past years is annually about 8 million cubic meters of which almost 70 % is fuel wood. The remaining share, 30 %, consists of the removals of industrial roundwood of which non-coniferous account for almost 2/3. The volume of saw logs is roughly 60 % to 64 % of industrial roundwood removals while the remaining part is pulpwood.

Approximately 50 % of the forest and woodlands are owned by farmers (with an average forest area of 7.5 ha). In all, 60 % of the forests in Italy are privately owned. The forests under the regime of the national and regional authorities account for hardly 6 % of the total woodland area, whereas other public bodies are responsible for 6 % and the share of municipalities is 28 %.

Actors on the wood provision arena are first of all the private landowners. A substantial share of the 605 222 private agricultural enterprises with small forest assets have their internal business objectives essentially relying on agricultural activities. Another minor group are the plantation-forestry firms. They are about 55 000 units, and occupy less than 2 % of the total forest area with their business focus on the pulpwood supply. Still another group are mainly the private forest enterprises dealing with logging operations, planting, etc., on the contractual basis. The estimated number of such enterprises is 8-9 000 with 24-28 000 employees (around

three persons per unit on the average). In most cases they are small family-owned business units acting locally.

The wood provision arena is experiencing many structural changes. The institutional setting and bodies responsible for enforcement and support of the policies are underway to become re-organised. This is partly due to new and revised international, EU-wide and national agreements, convents, etc., applicable to forestry in Italy, and partly because of the changing public valuation of the natural resources that sets up revised demands for environmentally sound policies and management practices. A basic problem in this process is the fragmented landownership based on the old provision for property rights that under current circumstances seems to be completely outdated, and therefore not able to contribute to the defined goals of the society at large.

Regarding the changing institutional context an idea of large-scale management units has been introduced. Such a concept would imply that an "external" contractor should take the responsibility for management of the forests in several enterprises. In doing so, larger and more efficiently managed forest units could be created. These would provide traditional wood supply to industrial users as well as supply of "public goods", for example, farm holidays, hunting and fishing rights, access to the forestry for walking, picking mushrooms, berries and other by-products of woodlands.

Primary and Secondary processing

The enterprises included under primary and secondary processing of wood raw material constitute approximately 15 % of all the 543 000 manufacturing firms in Italy. Approximately only 8 % of the 4.9 million employees in manufacturing in 2001 worked in wood and furniture-related value-adding activities; i.e. the average number of employed per firm is small, and around 5 person per firm on the average, which is smaller than the average for all industries.

Excluding furniture manufacturing, the turnover for these woodworking sectors has fluctuated around 15 billion Euros during the period 1999-2003 with a slight downward trend**.** The exports are about 8-9 % of the annual branch turnover. The total domestic demand at the level of over 17 billion Euros has been fulfilled during recent years by imports amounting to approximately 3.7 billion Euros annually. For the furniture sector the situation for trade is the opposite. Italy has a strongly positive trade balance of 9-10 billion Euros annually. Almost 50 % of the production is exported. Most recently production was at the level of 22-23 billion Euros, and imports almost 1.5 billion Euros. During 2002 and 2003 the export value has slightly decreased which has contributed to a slightly increasing trend for domestic consumption.

Regarding primary processing, the actors involved directly or indirectly in processing of wood raw material are domestic sawmills as well as veneer and plywood plants and manufacturers of other panels. Here, the focus is mainly on sawmilling and veneer/plywood production.

The sawmills in Italy are in most cases family-owned, small-scale industries concentrated to the northern part of the country along the Alps. Custom-made products are usually marketed to local buyers, e.g. the construction and furniture industries, with specific demand requirements. The output of an average mill was at the end of 1980s low, roughly 3 100 m^3 per year. In the 90s the structural change with many shutdowns has proceeded and today the annual average output is expected to be somewhat higher. No official data on branch level are,

however, available and consequently such a progress cannot be verified. From 1991 to 2001 the number of sawmills decreased from 4000 to slightly more than 2000 enterprises. The branch still employs 18 000 persons, and on average 4 persons per production unit were employed. In 2001, the average figure was 8 employees per mill. Regardless of many small mills involved in production, the annual output of the whole branch is dominated by the production of a few medium and large size mills. Of total production of 1.59 million m^3 in 2003 sawn hardwoods accounted for 55 %. It is likely that the raw material for sawing in smaller mills is procured totally from domestic sources, whereas the larger-size mills may also use imported logs.

As regards plywood and veneer industry (including also other panels – fibreboard, particle board, etc.) the development has been the opposite in comparison with the sawmills. The number of plants is 472 in 2003 – an increase of 28 % compared to 1991. Apart from several new establishments, the total number of employees has decreased with 8 % between 1991 and 2001 and was about 12 000 in 2001 implying rationalization of the branch. Roughly 50 mills are pure veneer and plywood mills with employment of approximately 5 000 people. Ten plants provide 65-70 % of the total domestic production. The output consists of 34 % softwood, 30 % birch, 28 % poplar, 7 % tropical wood and 1 % beech. The production of veneers amounted in 2003 to 460 000 m^3 and plywood to 445 000 m^3.

Secondary processing includes further processing of semi-processed raw materials. The product categories considered are builders' joinery, flooring, mouldings, millwork and wooden furniture.

More specifically, regarding *builders' joinery* two sub-sectors are dominant, viz. windows & doors, and other builders' joinery. Other builders' joinery in turn comprises the production of, among others, *flooring* and *mouldings*.

As concerns window and door production the number of enterprises has decreased with 40 % to 17 500 in 2001, according to survey data from 1991 and 2001. While the decrease in employment was slightly less during the period the average number of employees per enterprise has increased almost 10 % indicating a tendency towards larger production units.

For the manufacturers of other builders' joinery, including producers of *flooring* and *mouldings*, a strong increase with 60 per cent in the number of enterprises from 9 400 to 15 000 was recorded between the surveys in 1991 and 2001. In line with this increase of firms also the number of persons increased from 29 500 to 47 100 employees resulting in a similar relative change, 60 per cent, than for enterprises.

The product sub-groups in *millwork* include 'other wood'[2]. Other wooden products consists of approximately 6350 enterprises and 29 800 employees with a 20 % and 14 % increase, respectively, between 1991 and 2001. The average firm size measured as the number of employees per unit, has declined over 4 % and was almost five persons per firm in 2001. Obviously, this sub-grouping represents small businesses but it is a substantial employer in the wood product sector.

[2] Related in the statistical nomenclature to the category "manufacturer of other products of wood, cork, straw and plaiting material", and especially to "other products of wood" as a sub-group that is further divided into "other wooden products" and "wooden picture frames".

In 2001 the *furniture sector* approximately 33 200 enterprises are included employing around 210 000 people. Since the previous inventory in 1991 the number of firms has decreased with 9 % and the employees with 4 %. However, for the sub-sectors the individual development patterns are often contrasting to the general branch pattern.

Regarding the branch development the national, regional and local business policies for education, infrastructure, funding, export support, etc., have previously been of crucial importance. Nowadays, public policy incentives on various administrative levels seldom seem to promote development in industrial districts. Instead they seem to have developed their own performance codex across traditional administrative borders. The development of, for Italy typical, industrial districts (clusters of e.g. furniture manufacture) is thus drawing more on other kind of (i) endogenous and (ii) exogenous factors.

Regarding (i) endogenous factors the circumstances behind the earlier development (history) of districts (that resulted in formation of districts) are considered to be of crucial importance for understanding of how and why industrial districts have developed. Besides the '*path dependency*' of the current status of districts the spin-offs' in the form of '*cloning*' of and '*vertical specialization*' from mother units have been of outmost importance for the creating network structure of the districts. The fourth characteristic is '*spill over*' which led to an establishment of supporting and/or service activities for the mother branch, e.g., woodworking machines for furniture manufacturing. These four characteristics are in a sense the means that resulted in the network structure of districts.

However, at the individual level there was and still is a strong tradition of private ownership originating from agriculture, craftsmanship, entrepreneurship in industry and trade, and a tradition of co-operation between branches. This fact and other common values (community culture) created a solid ground for successful interactions and structural changes that have transformed agriculture, industry, trade and all the other sectors of society as well.

Moreover, advanced research carried out in co-operation with cluster enterprises, as well as collective efforts on marketing and education of professionals for specific working tasks are other strongly contributing factors. The cluster structure itself consisting of both large and small (micro) businesses in near co-operation is also of crucial importance. The most important (ii) exogenous factors are, for example, an increased demand for wood products in Western Europe after the World War II and liberalization of trade through the emerging EU. In such situations, the local conditions based on earlier foundations have been a good basis for further and successful development in the districts.

Construction

The construction sector consists of four parts: (i) residential construction, (ii) non-residential construction, (iii) civil engineering and (iv) other construction (including do-it-yourself -DIY and services). In real terms, the construction sector showed modest growth over the observation period. Of the subsectors, new residential building, as well as civil engineering, show steady growth, while the non-residential construction as well as builders' repair and maintenance show decline. The main uses of wood in construction are in windows, doors, panelling and roofing. Other uses are for temporary construction purposes as scaffoldings, concrete forming, etc.

Review of the Italian trade of wood and wood products

Data sources

The available data sources for the analysis of Italian trade are: (i) ISTAT (National Institute of Statistics; Foreign trade statistics), (ii) FAO (Food and Agricultural Organization of the United Nations; FAOSTAT – Forestry) and (iii) EFI (European Forest Institute; EFI-WFSE Forest Products Trade Flow Database). Only ISTAT applies Combined Nomenclature (CN8) 8-digit level that is instrumental and most suitable for the products analyzed here. While categorizing of various products is not given on beforehand, it is convenient to apply the classification used by Federlegno-Arredo, the Italian branch organization of woodworking and related industries. Another advantage of ISTAT data is that the data are most recent and published on both monthly and annual basis.

Regarding the availability and reliability of the data ISTAT is reporting the most appropriate data suitable for country studies like the present one. The data quality is the highest available and categorizing of the products is commonly used in Italian woodworking industry and furniture industry. FAO and EFI databases in this context can be considered complementary sources. With respect to the discrepancies verified it is necessary to take actions in order to minimize these differences by enhanced co-operation and updating routines.

Moreover, it should be noticed that the EU provides DG Trade – Expanding Export Desk through the Internet. The desk includes trade statistics of the EU countries and also information on import tariffs, non-tariff measures, etc.

Additional to ISTAT trade statistics, information on Italian wood, construction and furniture industry can be obtained from economic indicators. These indices are reported with only 1 to 3 months time delay (monthly/quarterly). However, it is noticeable that some of the industry related indices are based on data from enterprises with more than 20 employees. As reported, the share of enterprises employing less than 20 persons is rather high within Italian wood and furniture industries. Therefore, the indices should be interpreted with care. Still another, additional source of statistics is the 'Termometro' of Federlegno-Arredo published annually containing short-term surveys of Italian woodworking branch.

Italian trade of wood and wood products

Italy, as many other countries with limited raw material sources, fully utilizes its production capacity by importing the raw material to its industry and produce value added products for its trading partners. This is also the case for the trade of forest products. While being a net importer of raw material (roundwood, sawnwood, plywood and veneer), with minor negative trade balances, the wood products industries in Italy manufactures for the domestic and export market highly value added products such as wooden furniture and mouldings. The total net import of wood and wood products (including wooden furniture) amounts to 2.3 billion Euros, but considering only wooden furniture with highly value-added wood products, Italy turns out to be a net exporter at the level of 5.1 billion Euros in 2003. This confirms the importance of value added processing in creating positive trade balance for a country. In the Italian case, the contribution made by the wooden furniture industry is obviously essential for the wood industry in general.

Considering the relation non-tropical – tropical for exports and imports, respectively, of different primary processed products the (value) shares of tropical species are relatively low, approximately 15 %, for industrial roundwood, sawnwood, and veneer exports. For veneer imports and plywood the recorded shares of tropical species are around 25 %. For exports and

imports of secondary processed products, respectively the shares of tropical species are very low, only a few per cent. For flooring there is no data on tropical or non-tropical uses. On the other hand, it is verified that sourcing for flooring is primarily taking place in Africa and Asia. Therefore, it is reasonable to consider that except from deliveries of non-tropical products from these regions the supply consists of tropical wood to a larger extent than what is recorded as 'tropical'. This kind of reasoning might be valid even for other wood and wood products including wooden furniture from 'tropical sources'. Therefore, one may conclude that probably the tropical volumes recorded and displayed here should be seen as minimum levels.

As is pointed out, the imports of tropical products to Italy are dominated by Africa that shows a slight decline over the recent years ending up in a market share of 65 % in 2003. Other important sourcing regions for tropical wood products are Asia and Central and South America that recently have gained increasing market shares and cover together ¼ of Italian imports in 2003. The imports decrease slightly from the EU but increase from the Central and East Europe, and to some extent from Other Europe.

The imports of non-tropical wood products to Italy originate to large degree from Europe - 82 per cent of Italian imports. Sourcing from the EU tends, however, to decline while it is increasing from Central and East Europe that accounts to ¼ of Italian imports. North America is also an important but declining source of non-tropical wood products. Africa, Asia and Central and South America together contribute with about 10 % of the imports to Italy in 2003; a figure slightly higher than the market share for North America.

The exports of tropical and non-tropical wood products from Italy are primarily directed to the EU, Other Europe and Central and East Europe. Altogether almost ¾ of both tropical and non-tropical exports, respectively, cover these sub-regions. The EU's share is slightly more than 50 % in 2003 with a decreasing tendency for non-tropical. The exports of tropical wood products from Italy to the EU account for almost 60 %, at stable level. In contrast, non-tropical wood exports to CE Europe tend to increase somewhat approaching 12 % in 2003, the tropical being at a constant level of around 10 %. In Other Europe tropical and non-tropical gain market shares approaching 8 % and 5 %, respectively. Also the exports to North America are substantial. In 2003 the market shares for tropical and non-tropical were around 12 % for each. For exports to Asia slightly similar market shares to North America are recorded both tropical and non-tropical in 2003.

As to the Italian imports, exports, production and apparent consumption of specific wood and wooden products the conclusions are:

- Coniferous industrial roundwood: Italy is a considerable net importer with 2/3 of apparent consumption from external sources and with substantial share of imports originating from the EU. Consumption is annually over 3 million m^3.
- Non-coniferous industrial roundwood: Italy is importing half its consumption with a substantial share of imports from the EU and Eastern Europe. Consumption has decreased over the period and is approaching the level of 4 million m^3 in 2003. Notice that almost all sourcing of tropical industrial NC roundwood that accounts for 26 % of total imports of NC roundwood, imports occurs from Africa.
- Coniferous sawnwood: Italy is highly dependent upon imports. About 90 % of apparent consumption annually around 6-7 million m^3 is imported mainly from the EU and to some, but slightly increasing degree from CE Europe.

- Non-coniferous sawnwood: At the stable level of over 2.5 million m^3 per annum the consumption is secured by imports of 2 million m^3, mainly and to an increasing degree from CE Europe, and to a slightly decreasing degree from N America. Also exports to Italy from the EU amounts to a substantial quantity. Interestingly, tropical sawnwood supply declines from Africa and increases slightly from Asia. However, Africa is still the dominating source of tropical sawnwood imports accounting for 10 % to 15 % of the imported NC sawnwood.
- Veneer: Italy is a net importer with a relatively high self-sufficiency rate of about 70 %. The annual consumption is around 0.6 million m^3. Approximately 2/3 of imports at constant annual level consist of non-tropical veneer sourced to a considerable degree from the EU, CE Europe, and N America. Imports of tropical veneer are mainly from Africa but deliveries from N America tend to gain market shares while Asia is loosing its shares. Even supplies via CE Europe tend to increase whereas African smaller volumes show high variation over the period.
- Plywood: Consumption has steadily increased reaching the annual volume of 0.8 million m^3 in 2003. The self-sufficiency rate was around 30 %. On average, 2/3 of imports consist of non-tropical supplies, mainly from the EU and CE Europe, and to some degree from CS America. Imports of tropical plywood have increased with 50 % from 1999 to 2003. Africa has become a dominant sourcing region together with the EU, which however has lost market shares considerably. Supplies from CS America tend to increase while Asian shares decline.
- Builders' joinery – Other builders' joinery excluding windows and doors: In general Italy is net importer of builders' joinery. The imports are slightly higher than the exports and recently there has been a tendency of faster growing imports leading to larger trade deficit. Specifically, the sub-group other builders' joinery accounts for ¾ of the total imports of 0.25 billion Euros in 2003 after a period of steady increase.
- Builders' joinery – Windows: Italy is a net importer of windows that account for about 15 % of total imports. Regarding imports coniferous and tropical windows account for about 90 % and around 5 %, respectively. The window imports of tropical wood have increased remarkably from CE Europe that accounts for almost 90 % of market shares. Supply from Africa has totally collapsed.
- Builders' joinery – Doors: The door imports account for approximately 10 % of the total imports of total builders' joinery. Italian exports and imports are balancing each other relatively well. The import share of doors of tropical wood is around 5 % and at constant level over the period. About 50 % of imports originate from Asia. Imports from CS America have experienced a considerable drop but have recently shown an upward trend in line with imports from the EU.
- Flooring: The net imports tend to increase approaching the level of 0.17 billion Euros in 2003 or over 9 million m^2 that fills roughly 2/3 of the consumption. The supply is from several regions of which the EU and Africa are the most prominent. However, the market share of Africa tends to decrease whereas increasing shares are recorded for CE Europe. Asia keeps track on constant market shares over the period.
- Mouldings: Italy is a net exporter. Over recent years the imports show a declining trend approaching 0.03 billion Euros in 2003. With constant level of exports this means that the positive trade balance tends to weaken. Asia as the most important sourcing region is loosing steadily market share while the EU remains as the second largest supplier. In contrast, supplies from CE Europe show a considerable increase towards 2003.
- Millwork: Italy is net importer. The annual imports amount, on the average, to 0.35 billion Euros. The imports of tropical millwork are limited, only 1 % of the total

millwork imports. About 70 % of imports originate from Asia. Another important supply region is Africa. Decreasing shares are recorded for the EU.

- Wooden furniture: Italy is the leading producer and exporter of furniture in the world. The annual production amounts to 23-24 billion Euros of which furniture products of over 10 billion Euros are exported. Over 50 % of exports are directed to the EU. Other demand regions are N America, CE Europe and Asia. The most important products exported are seats with wooden frame and furniture for dining and living rooms that together account for almost ¾ of the export value of furniture.

An EEA-wide review of trade with focus on tropical wood and wood products

In the following section the EEA-wide trade of various wood and wood products are summarized and the trade patterns based on statistics from the perspective of vertical wood value chains are highlighted. The focal starting point for reasoning with respect to traded quantities across the entire product palette is the roughly evaluated trade data from 2002.

The review of the EEA trade in wood and wood products reveals that this region is a net importer of all kind of **primarily processed products**. In volume terms the total net imports of EEA amounted in 2002 to over 50 million m^3 of which around 40 million m^3 consisted of industrial roundwood; i.e. sawlogs, pulpwood, etc., evenly distributed between coniferous and non-coniferous species. The net imports of approximately 3 million m^3 coniferous sawnwood and 6 million m^3 non-coniferous sawnwood in 2002 constitute the next largest product group with trade deficit. The net imports of the remaining primary products amounted roughly to 0.2 million m^3 for non-tropical veneer and tropical veneer, respectively, and to 2 million m^3 for non-tropical plywood and 0.7 million m^3 for tropical plywood. Apparently, expressed in relative terms the net trade constitutes of 80 % of less (or non-) processed wood products, about 18 % of sawnwood and some per cent of veneer and plywood.

Considering the total imports of EEA, around 115 million m^3 in 2002, over 60 % (70 million m^3) of the imports consisted of industrial roundwood, evenly distributed in coniferous and non-coniferous species. Coniferous sawnwood amounted to 30 million m^3 (26 %) and non-coniferous 9 million m^3 (8 %). About 4 million m^3 (3 %) was non-tropical plywood and 1.1 million m^3 (1 %) of tropical plywood. The remaining volume was of non-tropical and tropical veneer 0.6 million m^3 and 0.3 million m^3, respectively.

Typically, the import share of the internal EEA imports of coniferous industrial roundwood and sawnwood is rather high, approximately 50 % or more, whereas of non-coniferous products only 1/3 or 1/4 is sourced within this region. External supply is from the area of the former USSR, Eastern Europe and to some degree from Other Europe. Considering non-tropical veneer and plywood imports the share of internal imports decreases below 50 % and is approaching 1/3 or 1/4 when tropical veneer and plywood is studied. The external supply is more diversified compared with industrial roundwood and sawnwood but large quantities are still sourced from Eastern Europe, Other Europe and USSR-region. Moreover, deliveries from Asia are considerable, especially regarding tropical plywood imports. In general, the imports of all products, except tropical plywood, show either a positive trend or remain at constant level over the period studied.

As to the total exports of EEA, approximately 53 million m^3 in 2002, about 12 million m^3 (23 %) and 7.5 million m^3 (14 %) constituted of non-coniferous and coniferous industrial roundwood, respectively. Coniferous sawnwood exports amounted to 27 million m^3 (51 %) and non-coniferous sawnwood to 3.5 million m^3 (7 %). Around 2 million m^3 (4 %) non-

tropical plywood was exported compared with 0.4 million m^3 tropical plywood. About 1 % of the total exports consisted of veneer exports of which 1/3 of tropical veneer.

The exports of EEA are directed to a considerable degree towards the internal market. There is a tendency that the share of external exports of non-coniferous and tropical products is somewhat higher compared with the coniferous and non-tropical products' share. Also, the more processed primary product, the greater share of external exports is delivered to more developed countries outside EEA. In general, the exports of various products show an increasing trend or remain at constant level, apart from non-tropical veneer and tropical plywood.

With respect to **semi-processed wooden products** the EEA is also net importer except wooden kitchen and office furniture that show a slightly positive trade balance. In 2002 the scope of total net imports was 2.9 billion US $, of which wood manufacture, including among others builders joinery, amounted to 1.8 billion US $; i.e. approximately 62 % of the value of total net imports of semi-processed wood products. The wooden furniture group accounted for about 1.1 billion US $ corresponding to 38 per cent of total net imports in semi-processed product.

The total imports of semi-processed products were in 2002 roughly 20 billion US $ of which 35 % equivalent to 7 billion US $, was constituted of wood manufacture products, and 65 %, 13 billion US $, of wooden furniture. Within the former group builders' joinery accounts for 44 % of the import value being clearly the dominating sub-group. Regarding wooden furniture products the 'seats with wooden frame' and 'wooden furniture NES' dominated with import values amounting to about 4 and 6 billion US $, respectively. For wooden 'bedroom furniture', 'kitchen furniture' and 'office furniture' the recorded import values in 2002 were within the range of 0.8 to 1.7 billion US $.

In value terms, the internal EEA imports are constituted of 50 % or more of the total imports of wooden manufacture and wooden furniture, respectively. Eastern Europe is important external sourcing region for all sub-products of wood manufacture and furniture.

The total exports of EEA amounted to almost 20 billion US $. Wood manufacture exports account for 30 %, around 5 billion US $, of the total exports. The sub-group builders' joinery contributes roughly 50 % to the wood manufacture exports. Approximately over 70 per cent of the exports, 14 billion US $, constitute of wooden furniture. Within this group the dominating sub-groups are 'seats with wooden frame' and 'wooden furniture NES' amounting to 4 and almost 6 billion US $ each. Then, as in the case of imports, wooden furniture for bedrooms, kitchen and offices record export values within the range of 0.8 to 1.7 billion US $.

Regarding the exports of semi-processed wood products, roughly 3/4 of wood manufacture products (incl. builders' joinery) and 2/3 of wooden furniture in value terms are traded within EEA. In general, the exports of these two aggregated product groups have remained at constant level, possibly with a weak decreasing trend. However, sub-groups such as builders' joinery, wooden bedroom furniture, wooden furniture NES and especially wooden office furniture display decline, while seats with wooden frame and wooden kitchen furniture tend to increase slightly. The external exports are directed towards all regions among which NAFTA is a substantial demand region, especially with respect to sub-groups seats with wooden frame and wooden furniture NES.

1. Introduction

1.1 Background

The present study is commissioned by the Committee on Economic Information and Market Intelligence (CEM) of the International Tropical Timber Organisation (ITTO) based on the approval of the International Tropical Timber Council (ITTC) at its 36th Session held in Interlaken, Switzerland, in July 2004.

In accordance with the statutes of ITTO the purpose of ITTO is to provide a mutual platform for producers and consumers of tropical timber and tropical wood products[3]. On this arena the information exchange and the development of policy issues take place with respect to

(i) international trade,
(ii) production-consumption matters, and
(iii) conservation (protection) of the resource base.

Implementation of working tasks at ITTO is channelled, apart from the administrative Committee on Finance and Administration, through Committee on Reforestation and Forest Management (CRF), Committee on Forest Industry (CFI) and Committee on Economic Information and Market Intelligence (CEM).

In particular, the activities of CEM are related to issues on

(i) timber trade and markets,
(ii) market access,
(iii) certification,
(iv) ecosystem services, and
(v) forest law enforcement all of which are contributing to enhancing the tropical timber flow from sources to end-users.

1.2 Objectives

In line with the defined sub-topics for the CEM the present consultancy task[4] comprises the following main topics:

- *Compilation and review of information* on imports, exports, production and consumption of industrial roundwood, sawnwood, veneer, plywood, builders' joinery, flooring, mouldings, millwork and wood furniture for species of tropical hardwoods, softwoods and temperate hardwoods in Italy as well as in the adjacent region (EU),
- *Consumption analysis* of tropical timber for each of the production/consumption centres and Italy itself including an analysis of tropical timber use relative to competing products, and product specifications and quality requirements,
- *Identification of possible import impediments* including tariffs, non-tariffs and other measures with impact on imports, as well as *perceptions/views* on likely future trends for tropical timber and tropical value-added wood products in Italy.

The complete description of the consultancy, the terms of reference, is given in Appendix 1.

[3] See web page http://www.itto.or.jp/live/index.jsp
[4] Project PP-A/36-149

1.3 Outline of the report

The methodology and data collection is described in section 2 and the results in section 3. First a short review of the economic development over recent years and economic projections for Italy are presented based on OECD data. Thereafter, a description of the institutional and structural circumstances is given which introduces the involved sub-sectors of woodworking industries across the Italian wood supply chain. Wood and wood products at various stages of value-added are outlined in a subsequent section based on data and finally the product analysis is expanded to cover the entire EEA-market area. Conclusions are given in section 4.

2. Study approach

The conceptual framework for the study of Italian markets for timber – with focus on tropical timber – is constituted of five 'action arenas'. *Arenas are the economic space in which actors with similar business objectives carry out broadly similar actions* (Flinkman, 2004). Depending on the product considered or the market actor, domestic or international, the identified arenas are:

- Intermediary provision of goods and services from importers, agents, wholesalers, retailers, and other suppliers of products;
- Wood resource provision where actions related to forestry take place with product output in sawlogs and veneer logs;
- Primary processing where the raw material is processed into intermediate and/or end-use products such as sawnwood, veneer, plywood;
- Secondary processing of the intermediate and/or semi-finished goods to produce finished items for end-use purposes such as builders joinery, flooring, mouldings, millwork, wooden parts for furniture and furniture; and
- End uses of products named above mainly for construction purposes and furnishing.

Trade is a common theme that will be discussed when the arenas are presented. In particular, the intermediary providers are involved in trading but also actors within all the other sub-arenas. The wood market and the actors form a demand - supply chain for forest products. From the methodological viewpoint the identified chains, depicted in their widest form as a network, also serve as an entry to the analysis of the Italian market for tropical timber, which is one of the focal points of the project. The analysis is accomplished by applying a modified Institutional Analysis and Development (IAD) framework description of the Italian forest industry cluster, in terms of (i) structural aspects from the point of view of forestry, wood working industry, etc., as well as (ii) its institutional setting regarding legislative and regulatory provisions, acts and laws with impact on the functioning of the cluster. In addition, the institutions, government and NGOs with commitment to control and enforce as well as to support will be identified together with the market actors along the supply chains. The second phase of the description of the Italian forest industry cluster is a product-oriented technical analysis focusing on the recent developments of production, imports, exports and apparent consumption of various wood products with emphasis on the tropical timber and secondary processed wood products. The operative methods applied are:

- desk research (analysis of secondary data from available sources)
- a survey among importers, producers and relevant branch organisations (see Appendices 2 and 3).

2.1 Institutional framework

The modified IAD framework that is applied defines *action arenas* for *actors* in different *action situations* that result in various *patterns of interaction* and *outcomes*. The actors, in a wider sense, affect and are affected by the *state of the physical world (environmental, technological and other market conditions)* and *the institutional setting of the* "*community culture"* (Ostrom, 1990).

Thus, the IAD approach constitutes a convenient tool for evaluating arenas, respectively, and the exchange markets (between arenas) by focusing on inter-linkages between the formal institutional settings designed to regulate exchange and the "rules-in-force" followed by the market actors.

The data collection is done (i) by identifying and extracting relevant data from available sources (secondary data) and (ii) by surveys accomplishing phone interviews and visits to enterprises, associations and institutions representing the actors influencing the market for tropical timber (primary data). Drawing on the answers of the respondents and other secondary data on tariffs, non-tariffs, duties, subsidies, standards, certification and other possible market impediments an attempt is made to concentrate and focus on the situation for tropical timber and tropical wood products from the perspective of market access and other related aspects important in enhancing the demand for products based on the raw materials from tropical sources.

2.2. Technical analysis of production, imports, exports and apparent consumption

The technical analysis may be regarded as describing and quantifying the production, imports and exports as well as apparent consumption of the products considered; in a sense, also highlighting the state of the physical world in terms of the IAD concept. The products in focus are saw and veneer logs, veneer, plywood, builders' joinery, flooring, moulding, millwork, wooden parts for furniture and wooden furniture. For each of these the annual production, imports, exports and apparent consumption, if available, are to be calculated from the available secondary data and surveys carried out.

3. Results

Secondary data – available from FAO, ITTO, ISTAT and EFI - and the primary data collected (interviews) are analysed focusing on wood provision including intermediary transfers, processing and end-use arenas. The data evaluation, in line with the IAD concept, highlights the physical environment (conditions), the prevalent institutional setting, and the actors participating in the transactions. Drawing on the data evaluation it is then possible to continue the analyses and also confirm some interaction patterns. Accordingly, the product-oriented technical analysis of manufacturing and trade contribute to complementary clarification of the state of the art.

<u>Economic Outlook for Italy as a background to the study</u>

The macroeconomic review based on the OECD data reveals that the Italian economy, measured in GDP-terms, has been lagging behind other Euro-area economies in the past two – two and half decades. The annual change of the Italian real GDP has in general been somewhat lower than the average annual change of the Euro-area GDP (Table 1).

Table 1: Average annual change of GDP for Italy and the Euro-area. Source: OECD

	1980-1990	1991-2000	2001-2004	2005-2006[1)]
Italy	2.3 %	1.6 %	1.0 %	1.9 %
OECD – Euro-area	2.4 %	2.1 %	1.3 %	2.2 %

[1)] Forecast

In the globalized world the Italian economy, as well as the other economies in the EU, has recently been influenced by international political factors including increasing risks for terrorism and pan-epidemics, and conflicts as in the Middle East and Iraq. Another factor is the considerable shift of the exchange rate of the Euro against the US-dollar that has taken place during recent years. The weakening US-dollar has worsened the competitiveness of the Euro-area, as well as the Italian exports to third countries, which is also illustrated in Table 2.

Table 2. Gross Domestic Product of Italy at market prices. Source: OECD Economic Outlook 76 database.

	2001	2002	2003	2004[1)]	2005[1)]	2006[1)]
	Current prices Billion €	Current prices Billion €	Current prices Billion €	Per cent change at constant prices		
Private consumption	726.0	751.8	780.4	1.3	1.5	2.6
Government consumption	229.5	238.9	253.4	0.7	0.6	0.3
Gross fixed investment	240.1	249.3	248.8	3.8	4.9	4.2
of which						
Machinery & equipment	*140.1*	*141.8*	*135.8*	*4.1*	*4.9*	*4.5*
Construction	*100.3*	*107.4*	*113.0*	*3.5*	*5.0*	*3.8*
Residential	*53.9*	*58.5*	*61.6*	*3.7*	*4.5*	*3.1*
Non-residential	*46.4*	*48.9*	*51.4*	*3.3*	*5.6*	*4.6*
Final domestic demand	1195.6	1240.0	1282.6	1.7	2.1	2.5
Stockbuilding	-0.8	5.2	11.3	-0.4	0.0	0.0
Total domestic demand	1194.8	1245.2	1293.9	1.2	2.1	2.5
Exports of goods and services	*345.9*	*340.2*	*330.2*	*4.5*	*6.1*	*5.4*
Imports of good and services	*328.4*	*327.9*	*323.3*	*4.3*	*7.5*	*6.7*
Net exports	17.5	12.2	6.9	0.1	-0.4	-0.4
Gross Domestic Product	1212.3	1257.4	1300.8	1.3	1.7	2.1
Inflation (%)	2.7	2.5	2.7	2.5[2)]		

[1)] OECD projection, [2)]estimate

The internal factors with impact on the overall economic development are related to an ageing population and subsequent problems with high tax wedge on labour income of a decreasing share of the working age population[5]. This reflects considerable pension contribution rates

[5] The Italian population, 57.3 million inhabitats in 2002 and 57.9 million inhabitants in 2003, is forecast to increase slightly during the next years approaching the level of 60 million. Among OECD countries Italy had one of the highest old-age dependency ratios of about 30 % in 2000, which is defined as the ratio of individuals

payable along with personal income tax rates that, however, seem moderately progressive in Italy. This structural weakness of the Italian economy is reducing the purchasing power of many households and leads to lower domestic demand and consumer confidence, in general (OECD, 2005). Also, the fiscal sector is suffering from the high public debt, and consequently there is lack of financial incentives to boost the economic development.

The overall weak economic performance has partly been compensated by increasing public (Government) spending in 2002 and 2003 but from 2004 and onward the public incentives are forecast to become lower than, e.g., private demand and investments (Table 2). In 2003 the investments declined with 2.1 % due to a slowdown for machinery and equipment investments with -4.9 % (at constant prices). A recovery is expected from 2004 and will be in line with the recent positive development for the construction sector, which is forecast to continue. Thus, in recent years and for the construction sector, there are indications of an anti-cyclical behaviour in boosting the economic development in Italy. Having been such an engine for economic activity the construction sector has also generated demand for input-materials used in housing and construction of other buildings and civil engineering. The demand for construction and in particular furnishing materials is central and instrumental for the development of the whole wood and wood products supply chain analysed in this report.

3.1 Institutional framework

3.1.1 Intermediary provision of goods and services

The description of the arena of intermediary provision of good and services includes the structure and the actors involved directly or indirectly in supplying roundwood, other semi-processed and semi-finished (raw) materials sourced abroad and/or domestically. Due to the international coverage of trade in wood products the institutional circumstances are reviewed with focus both on the international and national arena. An attempt to illustrate interactions is also carried out.

Trading structure and market actors

Here it is understood that actors are mainly dealing with pure trading activities and to a minor degree with other processing of wood. Typically, traders in wood and wood products purchase dominating share of their products from abroad through exporters/ importers/ agents and/or directly from producers abroad. Depending on the strategic focus of a firm the sourcing of products covers a varying share of tropical, temperate and softwoods through a network of different channels. No general pattern can be recognized in this respect. Regarding selling, pure traders tend, besides supplying a considerable share of their products to domestic markets, also deal with exports to a higher degree than traders with some processing included in their business. The latter are more oriented towards supplying the domestic demand. Supply to clients along the wood value chain occurs through a network of wholesalers and retailers to consumers. The Italian wood supply network is very fragmented at the moment because large domestic or European retail chains have not (yet) entered Italian wood market.

In general, transactions are based on personal contacts between buyers and sellers. Obviously, the Internet for e-commerce is not yet applied in any large scale, but there are exceptions.

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over 65 years and more in relation to the population aged 20-64. This ratio is estimated to be more than doubled by 2050.

Mostly, the Internet is used for getting more generic information about business partners beforehand.

Institutional circumstances

Generally, trade in wood products, as for all other products in any country, is strongly influenced and regulated by a number of international and regional agreements with a global/regional scope and signed within various forums and platforms. The most important international platform for generic trade issues and agreements, as well as for wood trade, is WTO (World Trade Organisation). Other forums for international co-operation arise through initiatives from United Nations and other global and regional organisations, national/regional policy makers, stakeholders and NGOs (Non-Governmental Organisations), among others, in order to target different topics with global/regional relevance and reach. Besides trade facilitation issues, today the concerns on environment and development in general are of greatest importance for the international co-operation. Such issues and agreements on environmental and welfare development have often a crucial impact even on the trade of wood products, and in particular with respect to tropical wood trade through its linkages to wood processing and raw material procurement from forests and woodlands.

Regarding the WTO-platform for trade liberalization the core treaties with impact on wood trade issues are:

- *General Agreement on Tariffs and Trade* 1947 and 1994 (GATT)
- *Agreement on Technical Barriers to Trade* (TBT)
- *Agreement on the Application of Sanitary and Phytosanitary Measures* (SPS)
- *Agreement on Intellectual Property Rights* (TRIPS)
- *Agreement on Subsidies and Countervailing Measures* (Subsidies)
- *Agreement on Agriculture* (Agriculture)
- *Agreement on Trade Related Investment Measures* (TRIMS)

A set of, in a sense, more operative agreements within the same class of treaties are dealing with anti-dumping, safeguarding, custom valuation and rules of origin matters[6].

Among multilateral environmental and welfare development agreements one of the most obvious is the *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (CITES), which is in force since 1973. This agreement has links to trade in wood and wood products. Another agreement is the *Convention on Biological Diversity* (CBD) adopted at the United Nations Conference on Environment and Development (UNCED) 1992 in Rio de Janeiro, Brazil. Under the umbrella of the UN within the global scope are also *United Nations Framework Convention on Climate Change* (UNFCCC) and its successors, for example, the ongoing *Kyoto process*. Within the framework of the UN there are, moreover, several treaties (and associated platforms) dealing with environmental issues crucial for trade in wood: *Intergovernmental Panel on Forest* (IPF), *International Panel on Climate Change* (IPCC)*, the International Tropical Timber Agreement* (ITTA), *Intergovernmental Forum on Forests* (IFF), and *United Nations Forum on Forests* (UNFF).

Regionally binding conventions are by nature mostly trade-oriented policy measures in order to develop and facilitate co-operation between the participating countries within a certain geographical region, and consequently to support socio-economic and welfare development.

[6] A more through review of the international setting for trade issues is given in Rytkönen, 2003.

As such they have an impact, directly and indirectly, on wood trade and processing, as well as procurement practices of a single partner country. These kinds of co-operation forums exist in every region of the globe. The most important regional platforms are the following:

- The Southern Common Market in South America (Mercosur),
- Asian-Pacific Economic Cooperation (APEC),
- Association of South East Asian Nations (ASEAN),
- North American Free Trade Agreement (NAFTA),
- The African Economic Community (AEC),
- The European Union (EU).

Typically, these regional bodies are underway to incorporate environmental thinking and awareness into their policy framework. As an example, during the last decade, Mercosur basically custom union has had discussions on several fora about how to consider and incorporate environmental issues in their further work on transferring the custom union towards free trade area, and thus a firmer regional integration and development. Drawing partly on the multilateral agreements (above) and partly internal policy goals the regional trade and development platforms are thus developing direct and/or indirect measures with implications even to wood trade. This is also case with the development in the European Union.

The European Union (EU)

An early successor to the European Union of today was the Organisation for European Economic Co-operation (OEEC), later named European Economic Community (EEC), which emerged out of the chaotic post-war situation in Europe in 1945. Through OEEC the economic aid and recovery programmes were canalised to eighteen nations in all. Another initial move of significance for European co-operation was the formation of the Benelux Union in 1947 between Belgium, the Netherlands and Luxemburg. The statutes of this trade union stipulated about a common trade policy towards third countries, co-ordination of economic policy and free movement of capital, labour, services and goods – principles still in force in the EU of today for increased integration.

The basic document for the EU of today, the Treaty of Rome signed by France, West Germany, Italy and the three Benelux Union nations - 'The Six' - in 1957, comprised the same tenets from the Benelux Union statutes targeting:

- Abolition of internal tariffs,
- Establishment of a custom union against 'third' (external) countries,
- Allowing free internal mobility of capital, labour, goods and services,
- Economic integration – common policies – in agricultural, industrial, energy and transport issues.

By 1968 the custom union and abolition of internal tariffs were completed.

In 1973 United Kingdom, Denmark and Ireland acceded to the EEC that thus comprised nine member states. The next enlargement took place in 1981 when Greece became a member. With the accessions of Portugal and Spain in 1986 the EEC covered twelve states in the Western and South Europe.

The next leap forward in the integration was taken through the Single European Act (SEA) that came into force in 1987. The aim of the Act was to amend the Treaty of Rome in several ways. The provisions of the Single European Act were related to co-ordination of (i)

economic and monetary policy, (ii) social policy, (iii) regional policy, (iv) research and technology, (v) environmental issues and (vi) foreign policy the overwhelming goal being the creation of the Single European Market by 1992.

In the 1980s there still were a large number of barriers. The Commission White Paper (CWP) signed at the European Council Meeting in Milan 1985 outlined the necessary actions in order to remove the remaining barriers to trade between the member states by 1992. For example, a substantial simplification of custom procedures has been achieved through the introduction of the Single Administrative Document (SAD) in 1988 for despatch and entry declarations on goods. It has replaced a great number of national trade forms.

In the 1990s and onward the enlargement process has continued and after the last enlargement 2004/05 the European Union now comprises altogether 25 member states. Meanwhile, the work on elimination of physical and technical barriers has also continued. Technical regulations are considered the single most important type of trade barrier on the internal EU-market. Different national standards in a wide spectrum of branches and products are being tackled mainly through harmonising the national standards to conform the supranational EU-standards developed in due course.

Also, the public purchasing, which earlier relied on national suppliers without exception, was considered a serious trade barrier and has therefore been subject to deregulation. Today, public purchasing in any EU-member state is open for competition from market actors from other member countries. In line with the public purchasing principles is even the freedom to engage in service transactions and other activities across the internal market, which will ensure competitive markets.

With respect to the **external trade** with the third countries the same import duty rates according to the EU's statutes are applicable to imports into all member countries. The EU being one of the signatories of the WTO-agreement applies tariffs to imports based on the MFN (Most-Favored-Nation) principles of WTO. Moreover, for many countries there are specific bilateral, regional and other preferential agreements contributing to lower tariffs as follows:

- The Europe Agreements,
- The Global Mediterranean Policy,
- The European Economic Area (EEA),
- The Agreements with South Africa, Mexico, Chile and Mercosur, and
- The Cotonou (previously Lomé) Convention.

Furthermore, there are autonomous instruments for trade such as the Generalized System of Preferences (GSP), which is not an agreement, but an instrument. GSP is now subject to new negotiations.

These import concessions may also involve quantitative restrictions; so-called tariff quotas (TRQs) and the tariff preferences may apply within and/or outside the TRQs.

The EU's coding system for classifying products for customs and statistical purposes is relying on the 'Combined Nomenclature' (CN) established by the Council Regulation 2658/87 on the tariff and statistical nomenclature and on the Common Customs Tariff. The classification system is originally based on the Harmonized System (HS) that assigns a 6-digit

code for general categories but the CN is further developed to include an 8-digit coding system. It is structured as follows:

- HS chapter with 2 digits (e.g. Chapter 44 Wood and Wood Products),
- HS heading with 4 digits (e.g. 44 12 Plywood, veneered panels and similar laminated wood),
- HS subheading with 6 digits (e.g. 44 12 13 - Plywood consisting solely of sheets of wood, each ply not exceeding 6 mm thickness -- With at least one outer ply of tropical wood…),
- CN subheading with 8 digits (e.g. 44 12 13 10 --- Of dark red meranti, light red meranti, white lauan, sipo, limba, obéché, *okoumé*, acajou d'Africa, sapelli, virola, mahogany (Swietenia spp.), palissandre de Rio, palissandre de Para and palissandre de Rose).

A further breakdown of the CN to the 10-digit level is done within the TARIC (TARif intégré Communautaire); i.e. the Integrated Tariff of the European Communities. TARIC and the 10-digit level (e.g. 44 12 13 10 10 ---- Of *okoumé* not coated by a permanent film of other materials) was launched at the same time as the CN through the regulation 2658/87. TARIC contains information on tariff quotas, all third country and preferential duty rates, tariff suspensions and other trade measures.

In this Tariff Schedule import duty rates are expressed as follows:

- ad valorem tariffs equal to a percentage of the product's value,
- specific tariffs per unit weight/volume/number of pieces,
- a combination of ad valorem and specific tariffs.

Regarding the allocation of eventual Tariff Quotas (TRQs) to importers there are three methods applicable:

- "First come, first served"-procedure based on the order in which applications have been received,
- "Traditional trade flow"-procedure in which the quota is broken down into a portion reserved for traditional importers and another portion for other importers. The quota preserved for 'traditionalists' is allocated based on specific criteria whereas the portion set aside for non-traditional (previous) importers is then allocated according to the procedure "first come, first served", and
- Procedure in which the allocation is done "in proportion to the quantities requested".

The EU's on line customs database (TARIC) can be consulted to look up commodity codes and relevant import duties (http://europa.eu.int/comm/taxation_customs/dds/cgi-bin/tarchap?Lang=EN). In trade with third countries the 10-digit codes of TARIC must be used in customs and statistical declarations.

The current import duties (as of March 2005) for wood and wood products are exemplified in Appendix 4. For industrial roundwood there are no duties to pay but for the sawnwood of certain tropical species the rates applicable are from 2 % to 2.5 %. For veneers the range is wider as well as the rates higher from 3 % to 6 %. Even coniferous species are included in taxation procedure. The highest rates up to 10 % are recorded for flooring products, parquet strips and friezes, mouldings, etc., and plywood from tropical sources mainly. Moreover, there are additional percentages payable according to the tariff preference procedure for certain countries within the SPGL-group (see Appendix 5). These rates vary from null to 6.5 % in general, but there are some exceptions, for example, regarding imports of dark red meranti and other such species (44 12 13 10 10) handled by certain Chinese companies.

In many cases the import duties are subject to additional requirements in the form of so-called non-tariff measures (NTMs) that also can be consulted on the TARIC database. Non-tariff measures are government laws, regulations, policies and practices that either protect domestically produced products from the full weight of foreign competition, or artificially stimulate the exports of particular domestic products. Walkenhorst and Fliess (2003) have categorized NTMs, originally based on UNCTAD (2000) into four classes as given in Table 3.

According to the study of Walkenhorst & Fliess (2003) on non-tariff measures affecting EU exports the authors conclude that *"natural resource based industries, such as agriculture and food, mining, and textiles, are the most strongly affected by NTMs relative to their export volumes. Certification procedures, quantity control measures, and technical regulations are the types of NTMs most frequently complained about. Complaints about domestic governance practices, such as impediments related to government procurement, investment restrictions, or insufficient intellectual property rights protection account for almost a third of all NTM observations and are in most cases not sector-specific, but of a general nature"*.

Regarding exports impediments for wood and wood products the complaints were relatively rare. The study was based on the European Commission's Market Access Database (htpp://mkaccdb.eu.int), which contains information on business complaints about non-tariff measures applied to EU-exports in target countries by third countries. According to Walkenhorst and Fliess (2003), the results should, however, be interpreted with care but they may anyway highlight which NTMs occur in the export context and within which sectors. Their direct applicability to describe the import impediments for the imports into the EU can be questioned, of course, but here the goal is to give a generic framework for reviewing various trade impediments of which not-tariff measures are considered most negative after abolition of the most import duties to the EU. For that purpose, the referred study results are descriptive enough.

As noted earlier – in the global context - the regional bodies are underway to incorporate environmental thinking and awareness into their policy framework. This process is underway also in the EU that is a considerable importer of wood and wood products. Awareness of the negative impacts of illegal logging especially in developing countries has forced the EU to introduce Forest Law Enforcement Governance and Trade (FLEGT) initiative as the EU's attempt to combat the problem of illegal logging in its supply countries. The FLEGT action plan was finally adopted in 2003. The plan constitutes of a wide range of measures, in a sense comparable to some extent with NTMs presented earlier, as follows:

- Co-operation in capacity building and enhanced governance in the supply countries,
- Voluntary partnership agreements for the private sector actors,
- Efforts to reduce the demand for illegally harvested timber to enter the EU-markets by setting up a dialogue and networking between supplier countries and the EU,
- Establishment of public procurement principles for public EU institutions and authorities to secure the legality of wood product purchases from sources,
- Development of 'code of conduct' for financial institutions investing in wood-producing countries in order to enhance the performance of such investments with respect to environmental issues, socio-economic aspects as well as combating illegal logging and trade.

Table 3: Classification of non-tariff measures (NTMs). Source: Walkenhorst and Fliess (2003), UNCTAD (2000).

NTM category	Type of NTM	Example
Core NTMs	Price control measures	Administrative price fixing
	Variable charges	
	Anti-dumping measures	
	Countervailing measures	
	Quantity control measures	Non-automatic licensing
	Quotas	
	Prohibitions	
	Export restraint arrangements	
Non-core border NTMs	Para-tariff measures	Customs surcharges
	Additional charges	
	Internal taxes and charges on imports	
	Financial measures	Advance payment requirements
	Multiple exchange rates	
	Restrictive foreign exchange allocation	
	Terms of payment for imports	
	Transfer delays/queuing	
	Automatic licensing measures	Import monitoring
	Automatic license	
	Monopolistic measures	Single channel for imports
	Compulsory national services	
	Customs procedures	Customs valuation
	Customs classification	
	Customs clearance	
	Rules of origin	
Standards and certification	Technical regulations	Product standards
	Production standards	
	Mandatory labeling	
	Marking	
	Packaging	
	Certification	General certification
	Quarantine	
	Inspection	
	Testing	
Domestic governance (other than standards and certification)	Government assistance	Export assistance
	Production assistance	
	Public procurement issues	Tendering issues/systems
	Contract conditions	
	Investment restrictions	Foreign equity restrictions
	Performance requirements/incentives	
	Trade balancing	
	Distribution restrictions	Wholesale restrictions
	Retail restrictions	
	Transportation restrictions	Restrictive airport regulations
	Restrictive seaport regulations	
	Lack of intellectual property rights protection	Patent
	Copyright	
	Trademark	
	Law enforcement issues	Lack of legal infrastructure
	Inadequate efforts on trade integrity	
Miscellaneous measures		

About seven meetings with representatives from the EU member countries and other stakeholders are planned for 2005 in order to proceed with the idea of FLEGT. Funding for different actions is received from the European Commission, initially 20 million Euros. The

coverage of the whole commitment is estimated to 60 million Euros but there are already further proposals to finance activities in various developing countries securing considerable amount of actions to be carried out. For example, Indonesia will receive 15 million Euros over a 5-year period. Besides this and other similar pilot projects there are proposals for actions in e.g. Africa and Caribbean countries.

All such activities and efforts must be put in relation to the current socio-economic and regulatory circumstances in target countries. For example, Wall and Wells (2000) studying "The production of sawn hardwood and regulation of timber extraction from natural forests in Tanzania" illustrate the situation as follows: *In fact, almost all hardwood is harvested illegally. A number of problems arise in administering the regulations. First, many pit-sawers are cash-constrained and cannot afford the prescribed registration fee. Thus, they do not register, obtain licenses, or pay royalties. Second, the regulatory requirements are cumbersome and time consuming. Forest officers cannot administer them because of poor resources and the travel distances involved. In addition to cheating and corruption, attitudes about forest regulation amongst the general public, dealers, public officials and politicians are ambivalent. Forest officers report difficulties in obtaining evidence of illegal trading that will hold up in court because of lack of co-operation from the police and district council.*

The cited research results exemplify the widespread illegal sourcing of hardwood in complex timber trading systems, the probable non-sustainability of extraction and the failure of current regulation. It is important to consider the FLEGT initiative in the developing-country context taking into account the local socio-economic circumstances. Besides the EU initiative, there are currently several FLEGT initiatives underway around the world. These, e.g., The Forest Dialogue (http://research.yale.edu/gisf/tfd/), are trying to cope with illegal extraction and trade through intensifying co-operation between governments, business and NMGs.

Italy

As noted above the actors involved specifically in imports (and exports) are influenced and controlled by various multinational import restrictions in terms of tariffs, non-tariffs, duties, etc., according to EU's harmonized system applicable on each member state's trade with third countries. Parallel with this EU-wide system there are also generic Italian provisions for business activities, and a specific legislation and measures for rural and regional development through the Rural Development Plans (RDP).

The FSC and PEFC certification systems today play a crucial role for the trade in wood products to Europe. Besides the forest certification a more appropriate and operative certification procedure for traders is relying on the *chain-of-custody (CoC)* identification that is a process by which the source of a timber (raw material) is verified. Accordingly, the raw material has to be traced by an independent verifier from the forest through all the production phases until it (the product) reaches the end-user in order to be eligible for carrying the CoC-certificate.

Also, the certification in accordance with the standards ISO 9000 and 14000 for Total Quality Management (TQM) is today crucial for the traders.

Based on the Italian membership in the EU the trade activities along the wood supply chain since April 2004 are subject to the CE marking system[7] for traded construction products according to Council Directive 89/106/EEC of 21 December 1988.

Institutional and other actors associated with intermediary provision of good and services

Governmental bodies with interests in trading issues are, for example, the Ministry of Environment and Protection of Territory, the Ministry of Agricultural and Forest Policies, the Ministry of Foreign Affairs and the Ministry of Productive Activities. From the perspective of international timber trade issues to consider are: (i) to take part in defining the EU position, (ii) negotiating and managing international agreements on main commodities, and (iii) to deal with issues related to the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES). Furthermore, it is the responsibility of these bodies (iv) to carry out implementation of such agreements at national level.

In addition to private market actors, other institutional actors within the private sector are, Agelegno, Italian association of business agents of the wood sector, which represents in total 26 member companies based in Italy, with worldwide trading activities, and Promolegno (www.promolegno.com). The latter is an association established by Agelegno in co-operation with Assolegno and Fedecomlegno within Federlegno-Arredo, and ProHolz Austria. The strategic goal is to promote wood use in Italy[8]. Furthermore, Assocarta (Italian association of paper industries) and the Forest Products Market Observatory (established by CNEL) are among actors of the intermediary arena.

Interactions and output of activities on the intermediary provision arena – its functioning

Implementation of international commitments in the EU and worldwide, e.g. FLEGT initiative, is for Italy an obligation related to other international initiatives, for example, the G8 Action Programme on Forests[9] agreed at the 1997 Summit in Denver, USA and to other more general declarations to fight corruption and improving transparency[10].

In 2004, Italian government started the implementation of the FLEGT action plan at national level by establishing a working group that consisted of representatives from four State institutions: the Ministry of Environment and Protection of Territory, the Ministry of Agricultural and Forest Policies, the Ministry of Foreign Affairs and the Ministry for Productive Activities. External experts and other interested organisations were invited to the working group. Among them are Federlegno-Arredo, Assocarta, the Forest Products Market Observatory, WWF Italy and Greenpeace Italy, and others. Interestingly, the first initiative of the working group was the coordination of an official reply to the questionnaire sent by WWF International on the implementation of FLEGT[11].

[7] See http://europa.eu.int/comm/enterprise/newapproach/standardization/harmstds/reflist/construc.html

[8] Over the last 3 years, consumption of wood in Italy has increased approximately 16% (www.promolegno.com).

[9] See: http://www.g8.utoronto.ca/foreign/forests.html

[10] See: http://www.g8.gc.ca/g8_fight_corr-en.asp

[11] The WWF Barometer. In the survey organised by WWF International in 2004 to monitor the implementation of the FLEGT Action Plan at national level by the EU member countries Italy has obtained one of the worst scores. The evaluation was based on the following criteria: the development of a voluntary licensing scheme, the implementation of commitments on public procurement of legal and sustainable wood products, the participation in partnerships to combat illegal logging and related trade and the level of priority for projects in wood-producing developing countries to reduce illegal logging. The evaluation was negative because Italy lacks all these instruments in particular obtaining the minimum score in six times out of nine. For more information see http://www.wwf.dk/242000c.

The actions that the Italian government should promote to implement FLEGT Action Plan are: (i) to identify the legality of production (legality verification), (ii) to track it to the market (customs co-operation and enforcement), (iii) to enforce the prohibition of market access for illegally sourced timber products (finance and procurement). Other fields of activities should be (iv) monitoring of factors, which tend to promote illegal logging such as unmonitored loans and financing, for example by banks and export credit agencies, money laundering, and purchases by public procurement bodies.

At present the discussion is open but no agreement or instrument have been approved by Italian government and no co-operation programmes between developed countries and emerging economies have been stipulated yet. The pros of this instrument are: the existence of an instrument with an overall approach, a large participation of countries and their international support; while the cons are: the difficulties to enforce it, the technical problem to implement a licence scheme and perhaps a weak political will.

In contrast to the poor implementation of the FLEGT-process in Italy, the survey on traders, intermediary providers of wood and wood products to the Italian market in spring 2005, highlights some practical views and considerations of the involved wood traders and their representative, Agelegno, as follows:

Regarding procurement of wood products direct transactions with foreign producers are expected to increase during the next five years, whereas the survey indicates that supplies through foreign importers/agents may decline. Due to very shifting business profiles of the traders it may be difficult to figure out any common pattern of species distribution; some trade in tropical and temperate wood, some in softwood or, as usual, mixing species of wood. However, lack of quality consistency and irregular supply of input products from tropical sources are, in general, considered a serious drawback by traders with some value-added processing included in their business, as also pure traders. Accordingly, such problems tend to create a common feeling among traders that raw material acquisition is a problematic issue, especially when there is a severe price competition on the market.

In addition, the regulatory framework implemented in some cases, e.g., systems for forest certification as well as phytosanitary certification, and Chain-of-Custody identification, brings some extra constraints for the transactions but possibly also advantages. However, there are serious doubts about the capacity of such measures to protect the resource base and also, if it is worth the effort. On the other hand, it is indicated that environmental NGOs, media, etc., are putting increasing pressure on market actors to take into account the issue of tropical resource base protection while making business. Under such circumstances it is quite logical that support in terms of lobbying, promotion, certification, technical assistance, etc., from branch organizations and others are considered with skepticism without exactly knowing if it is good or bad for the business. Furthermore, the lack of standardized measurement systems for wood and wood products with an impact on quality consistency of deliveries is harming the transaction between sellers and buyers. In all, these kinds of business conditions are forcing traders to substitute tropical products by temperate hardwoods and softwoods but also by other non-wood materials. Another trend is from raw materials towards value-added products.

Knowing that producer countries are enforced to implement policies for conservation and protection of the environment and to reduce extraction and trade of less processed products it

is believed that even supplies from tropical supply regions in the southern hemisphere, in common, will decline[12].

On the other hand, as to the domestic demand for wood and wood products, there are indications of a decrease, but also, in contrast, some signs of stable or increasing export demand in the EU and worldwide. However, the market situation for tropical products is generally assessed to be difficult for the reasons given above.

In this situation, when procurement of wood products as well as demand for final products is likely to tighten, traders seem to consider increased product specialization and diversification of production as important means for maintaining or improving their competitiveness. Other possible means proposed are increased 'use' of just-in-time and flexible production and, depending on the business strategy, production of semi-finished products. Such actions may enhance also price competitiveness contributing to overall and improved profitability. With respect to wood procurement traders with pessimistic expectations tend to believe that the use (trade) of tropical products of various value-added degrees may not increase at all in the future. The less pessimistic (or slightly optimistic) ones seem to expect a movement towards larger imports of more value-added wood products from the tropics, e.g., plywood and secondary processed wood products (SPWP). And finally, there are traders who are convinced of an overall increase of imports of tropical products of various value-added degrees. Due to a limited scope of the survey the views presented are not statistically verified but will present various action directions penetrated by the actors within the intermediary provision of wood and wood products.

3.1.2 Wood provision from domestic sources

The wood provision arena considered includes a mapping of the prevailing conditions and structures of forestry. Also, actors involved directly or indirectly in providing wood raw material (and non-wood forest products) from the forests and woodlands for own use and to value-adding purposes, are described, as well as the institutional circumstances affecting them (or which they affect).

Natural conditions and the structure of forestry

According to the National Forest Inventory of 1985[13] the total forest cover of Italy accounts for 29 % of the total land area and amounts to 8.7 million ha of which high forests constitute approximately 25 %, coppices 40 %, other forests[14] 25 %. The remaining share of about 5 % constitutes forests plantations for extensive timber production and non-timber products, e.g. cork, chestnuts. Approximately 60 % of the forests are within mountain areas of the country whereas about 35 % within hilly and the remaining 5 % plain regions.

At the time of last inventory the estimated growing stock, with tree diameter of at least 17.5 cm in breast height in the high forests, was estimated to approximately 350 million m^3 and is expected to increase because the annual increment over last years exceeded the harvested

[12] However, the respondents are expecting that supplies from South America, mainly from Brazil, will increase while supplies from Africa and Asia, from countries with political and social instability, will decrease.

[13] According to Petenella & Klöhn (2004) the determination of forest cover in Italy is a peculiar issue because of various definitions of 'forests', and depending on the ongoing conversion of abandoned agricultural land and range land to 'forest'. A most recent estimate from 1998 reports 9.9 million ha. A new National Forest Inventory is about to be released in 2005.

[14] Rocky, riparian and shrubs.

volumes, and second, because there is a continuous conversion of abandoned agricultural land and other range land to forest land.

Typically, the high forests are located in the northern part of the country even if some remnants exist in the South Apennines. Accordingly, coniferous species are dominating in these forests. More than one half of the growing stock as well as aerial distribution consist of species like spruce (Picea Abies Karst) and pine (Pinus silvestris, Pinus nigra Arnold, Pinus laricio Poiret) and larch (Larix decidua Mill.). Oak (Quercus cerris L.) and beech (Fagus sylvatica L.) are the most important species among the non-coniferous species.

The coppice forests are characterized by beech (Fagus sylvatica L.), especially in mountain regions but even Chestnut (Castanea sativa Miller,) hophornbeam (Ostrya carpinifolia Scopoli), hornbeam (Carpinus betulas L.) and oaks (Quercus spp.) that, however, are more widely distributed in the southern regions and in the Apennines.

Because of shifting natural prerequisites regarding vegetation cover, topography, soils, climate and water conditions, as well as current societal demands for a sound utilisation of the woodlands, a considerable area of forest and woodlands are protected in different ways. In the most recent inventory roughly 73 % of the high forests were classified into production forests. The remaining share (27 %) constitutes forests protected for other purposes such as ecological, recreational and other, e.g. soil and water conservation reasons. For the coppice forests the protective share is somewhat lower, around 18 %. Note also that a substantial share of the productive forests are subject to protection activities in one way or another, and therefore, the silvicultural operations in this forest category may be restricted by several directives and decrees enforced regionally and locally by authorities. For example, in the high forests the clearcutting method is used with considerable care. Instead, a set of various environmentally protective and acceptable harvesting systems is utilized depending on the actual species to cut, region, topography, etc. On the contrary, the coppice forestry has been largely characterized by clearcuttings. However, even the management of coppices is nowadays regulated to a greater degree than before. Consequently, there is on one hand a trend towards silvicultural practices that aim at creating partly more multi-functional coppice forestry, partly a conversion of the coppice forests to high forests. On the other hand, in some regions where the role of non-wood forest products (NWFP) is considerable for local actors the management polices are modified to satisfy such requirements especially in coppice forests.

The annual harvesting in 2003 resulted in removals of about 8 million cubic meters of which almost 70 % is fuel wood. This level is representative for annual cutting over the past years since 1990. The remaining share, 30 %, consists of the removals for industrial purposes. The non-coniferous industrial roundwood accounts for almost 2/3. The volume of sawlogs is roughly 60 % to 64 % of industrial roundwood removals while the remaining part is pulpwood.

The harvesting operations are carried out almost entirely by motor-manual felling and the shortwood logging systems. One obvious reason for implementing these methods is the topographic conditions. The second reason is a considerable fragmentation of the ownership for the forests and woodlands. Approximately 50 % of the forest and woodlands are owned by farmers (with an average forest area of 7.5 ha) for whom forestry is just a complementary source of income. In addition, utilizing agricultural equipment much of the wood in these enterprises is collected for heating purposes; i.e. as fuelwood, and for own use. In all, 60 % of

the forests in Italy are privately owned; by persons and firms. The forests under the regime of the national and regional authorities account hardly for 6 % of the total woodland area, whereas other public bodies are responsible for 6 % and the share of municipalities is 28 %.

Institutional circumstances

The "community culture" of forestry is highlighted from the perspective of formal institutions, such as legislative and tenure provisions.

Apart from international agreements and conventions, e.g. Convention on Biological Diversity (CBD) and other environmental agreements on climate change, conservation and protection of ecosystems, etc., signed by Italy, the institutional setting for national forest governance is still basically relying on the Forest Policy Act approved first time in the 1920's. In the last decade, the forestry-related legislation has been modified so that regional and local authorities have received an increasing responsibility for the forest management issues (Italian Constitution, Art 17). During the recent past also several national provisions influenced by the Italian EU-membership have been adopted. These are related, among others, to forest fires, sustainable development of the forest sector taking into account regional and rural development needs and the specific needs of forest management, research and information/extension. Moreover, a decree for supporting environmentally sound forest management and protection activities has recently been approved. Most of the regulatory and supportative activities are dictated in and through Rural Development Plans adopted in all regions. Among others, measures are targeting afforestation of non-agricultural lands, fire prevention and reconstruction after forest fires, maintenance of forest ecosystems, certification, chain-of-custody implementation, forest resource management including exploitation and harvesting practices.

The certification of forests is another issue affecting the governance and management. In Italy there are presently two different certification schemes in use. The FSC (Forest Stewardship Council) certification system was introduced in Italy in 2001. The PEFC (Programme for the Endorsement of Forest Certification schemes) certification in turn was endorsed in the country by the PEFC Council in 2004.

Actors associated with wood provision

The section is about those involved, e.g. forestry enterprises, NGOs, forestry authorities, etc., in forestry.

Among the most central national institutional bodies affecting the overall forest management policies is the Ministry for Agricultural and Forest Policies. Due to the decentralisation of responsibilities to regions and municipalities, however, the role of the Ministry has been changing. Currently, the Ministry's most prominent tasks are merely within the EU-co-operation while the regional authorities, in particular in north Italy, take the responsibility for organising the regional forest service bodies for implementation of the forest management policies. In Central Italy, in some cases, the responsibilities are further decentralised to local authorities such as municipalities, provinces, etc. Only in the south the old organisational structure is still in force with the implication that the State Forest Service under the Ministry is enforcing policy activities even on the local level.

Another body, the Italian Agency for the Protection of the Environment and for Technical Services (APAT) governed by the Ministry of the Environment and Land Protection, influences the utilisation of forests and woodlands through its mandate to carry out activities of national interest for the protection of the environment, of water and soil resources. Moreover, it specifically is in charge of coordination of the work at the Italian regional (ARPA) and provincial (APPA) environmental protection agencies.

Occasionally, at the central level even other ministries may provide the forestry cluster with specific decrees as, for example, the recent decree from Ministry of Economics and Finance regarding the tax relief for those forest estate owners who carry out activities targeting improved management and protection of forests.

As noted in the previous sub-section the national subsidiaries of PEFC and FSC in Italy act as NGO-actors (non-governmental organisation) in forestry matters with an increasing impact on the management practices by implementation of their certification schemes. To date the area of forests covered by the Forest Management Certificates of FSC is very low – only 14 297 ha - which area is distributed on four sites. On the other hand, the certified forest area according the PEFC is totalling in 356 053 ha. Approximately 80 % of the area is certified by so called "group certification" involving, in total, 22 323 forest owners. On the remaining area mainly the "regional certification approach" is applied with few participating forest owners (38) whereas only one owner has proceeded in implementing a so called "individual certification scheme" with a coverage of almost 3000 ha.

At the national level the National Federation of Forest Associations *(Federforeste*; http://www.federforeste.org/*)* that was established quite recently represents enterprises within more than 60 regional member entities with a total forest and woodland area of 400 000 ha.

As market actors operating on the wood provision arena are first of all the private landowners. As noted earlier, private ownership covers 60 % of the total forest area of 8.7 million ha, and especially the small agricultural enterprises with forest accounts for about 50 % of this land area. So, a substantial share of the 605 222 private agricultural enterprises with small forest assets seem to be unorganized actors on the forestry action arena with their internal business objectives essentially relying on agricultural activities. Having secured fuelwood and timber for own use the landowner then may have a secondary objective to supply the excess volumes to industrial users if it turns out that selling would give positive revenue under current environmental restriction. Another minor group are the enterprises dealing with plantation-forestry. These are about 55 000 units, and occupy less than 2 % of the total forest area with their business focus on the pulpwood supply.

Still another group on this arena are mainly the private forest enterprises dealing with logging operations, planting, etc., on the contractual basis. The estimated number of such enterprises is 8-9 000 with 24-28 000 employees. In many cases they are small family-owned business units acting locally.

Interactions and activities on the wood provision arena – its functioning

The wood provision arena is experiencing many structural changes. The institutional setting and bodies responsible for enforcement and support of the policies are underway to become re-organised. This is partly due to new and revised international, EU-wide and national agreements, convents, etc., applicable to forestry issues in Italy, and partly because of the changing public valuation of the natural resources that sets up revised demands for

environmentally sound policies and management practices. In a sense, starting from the expressions of the public opinion and valuation in the society (Italy and abroad) and by a subsequent revision of the legislative setting for environmental management, a circle is coming to an end – in order to become then revised again based on changing perceptions to come. A new "community culture" is about to come into effect.

An expression of the new "community culture" with reference to forestry (as a common pool resource) is the new perceptions and demands for public goods such as environmental protection in various ways, enhanced accessibility for recreation, hunting, etc. The traditional forestry action arena is thus getting new actors with new perceptions and attitudes that have to interact with the 'old actors'. This means conflicting interests between the newcomers and the old actors, and between the old actors' own traditional perceptions and the – possibly - renewed perceptions they may have incorporated.

A basic reason for this kind of conflicting interests is arising from the fragmented landownership based on the old provision for property rights that under current circumstances seems to be completely outdated, and therefore not able to contribute to the defined goals of the society at large. While 60 % of the forests are privately owned and up to 50 % owned by small farms where forests contribute only marginally to income, it is obvious that the interest to implement new management regimes that could meet also the wider societal goals is limited.

Regardless of the increasing demand for environmental considerations in property management the current fragmented landownership and the technological level of forest operations are still contributing to the misuse of resources. This is the case seen from the perspective of industrial users of roundwood who today import a major part of their raw material. But even for the single landowner there would be potential for higher revenues from forestry if her/his business concept would constitute a considerable interaction with forest industry activities. However, several economic incitements are required in order to increase the landowners' willingness and ability to invest in forestry activities.

Within the changing institutional context where the small scale and fragmented landownership is a crucial problem for rational management an idea of large-scale management units has been introduced (Pettenella, D. & Klöhn, S., 2004). Implementation of such a concept would imply that an "external" contractor should take the responsibility for the management of the forests in several enterprises (where often agriculture is the main income source). In doing so, larger and more efficiently managed forest units could be created. These properties would dispose of expertise in forestry matters thus having much better prerequisites than a single landowner to reach acceptable economic returns from forestry. Traditional wood supply to industrial users as well as supply of "public goods" would be possible for these large-scale management units to take care of. Such "public goods" are, for example, farm holidays, hunting and fishing rights, access to the forestry for walking, picking mushrooms, berries and other by-products of woodlands. Thereby, an implementation of such an approach would result in a cost effective, environmentally sound management of small forest lots and contribute to fulfilling a multitude of needs and wishes among the actors involved in the wood provision arena as well as for the society. This would mean an enhanced competitiveness and higher profitability for the landowners who may get their income from several sources (agricultural production, forest-related products as wood, non-wood forest products and services to the general public). At the same time the state and the general public can receive

their part of the public goods in terms of taxes, recreational, etc., utilities and environmental protection and other ecosystem services – directly and indirectly.

The other main partner on the wood provision arena is the state, and regional and local authorities.

3.1.3 Primary and secondary processing

The arenas (sub-clusters) considered here constitute a review of the structure of these arenas; i.e. an overall mapping of the industrial landscape of the primary and secondary processing.

Within primary processing, the actors involved directly or indirectly in processing of wood raw material are domestic sawmills[15] as well as veneer and plywood plants and manufacturers of other panels. The focus is, however, on the sawmilling and veneer/plywood production.

Secondary processing includes further processing of roundwood and other semi-processed raw materials at domestic plants (directly and indirectly). The product categories considered are builders' joinery, flooring, mouldings, millwork and wooden furniture.

The enterprises included under primary and secondary processing of wood raw material constitute approximately 15 % of all the 543 000 manufacturing firms in Italy. Approximately only 8 % of the 4.9 million employees in manufacturing in 2001 worked in wood and furniture-related value-adding activities. The conclusion is that the average number of employed per firm is small, and smaller than the average for all industries.

Excluding furniture manufacturing, the turnover for these woodworking sectors has fluctuated around 15 billion Euros during the period 1999-2003 with a slight downward trend towards the end of period (Figure 1). The exports seem to be about 8-9 % of the annual branch turnover.

[15] Including also value-adding activities such as planing and wood preservation at mills and other independent value-adding units.

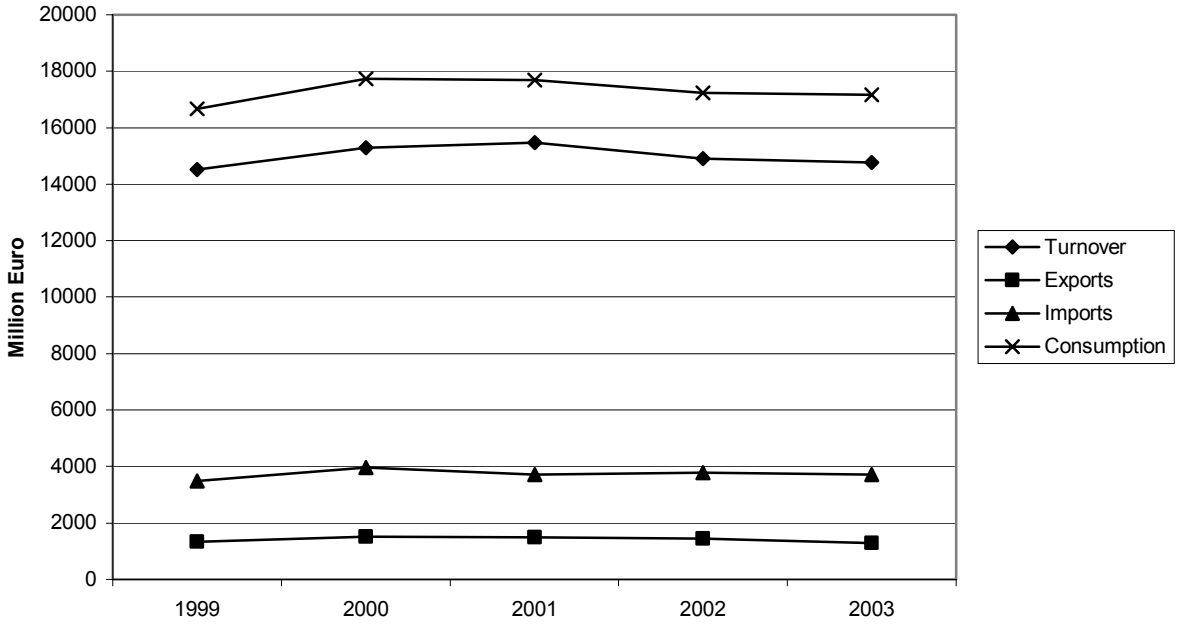

Figure 1. Turnover of woodworking industries, and exports, imports and apparent consumption of wood products, excluding furniture sector 1999-2003. Source: Federlegno-Arredo.

Italy has a negative trade balance in wood working products. At the level of over 17 billion Euros the total domestic demand has been fulfilled during recent years by imports amounting to approximately 3.7 billion Euros annually.

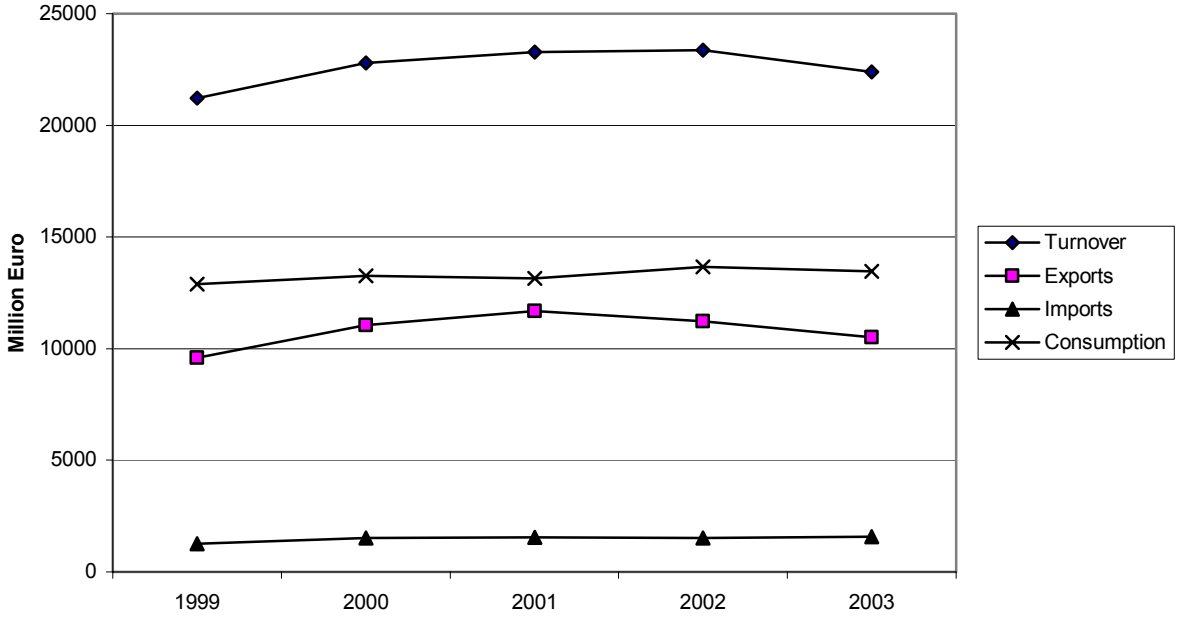

Figure 2. Turnover of furniture industries, and exports, imports and apparent consumption of furniture 1999-2003. Source: Federlegno-Arredo.

For the furniture sector the situation for trade is the opposite (Figure 2). Italy has a strongly positive trade balance of 9-10 billion Euros annually. Almost 50 % of the production[16] is exported. During 2002 and 2003 the export value has slightly decreased which has contributed to a weakly increasing trend for domestic consumption.

Against this economic background the institutional environment as well as the institutional bodies and other groupings are discussed in order to give a description of interactions. The institutional settings of both primary and secondary processing arenas are parallel in many respects and therefore the description is common for both industrial clusters.

Industrial structure and market actors of primary processing

Typically, the primary processing is considered to constitute processing of logs at sawmills and at veneer and plywood mills. The sawmills in Italy are in most cases family-owned, small-scale industries concentrated to the northern part of the country along the Alps. Custom-made products are usually marketed to local buyers, e.g. the construction and furniture industries, with specific demand requirements. The output of an average mill was at the end of 1980s low, roughly 3 100 m^3 per year. In the 90s the structural change with many shutdowns has proceeded and today the annual average output is expected to be somewhat higher. No official data on branch level are, however, available and consequently such a progress cannot be verified. From 1991 to 2001 (the latest inventory available) the number of sawmills decreased from 4000 to slightly more than 2000 enterprises. The branch still employs 18 000 persons, and on average 4 persons per production unit were employed. In 2001, the average figure was 8 employees per mill. The interpretation of this is unclear. One hand it can be interpreted as signs of lower productivity[17], but can also be a reflection of the way the enterprises report statistics on employment of their personnel – as temporary or permanent.

Regardless of the fact that many small mills are involved; the annual output of the whole branch is dominated by the production of a few medium and large size mills. Of total production of 1.59 million m^3 in 2003 sawn hardwoods accounted for 55 %. It is likely that the raw material for sawing in smaller mills is procured totally from domestic sources, whereas the larger-size mills may also use imported logs.

As regards the plywood and veneer industry (including also other panels – fibreboard, particle board, etc.) the development has been the opposite in comparison with the sawmills. The number of plants is 472 in 2003 – an increase of 28 % compared to 1991. Apart from several new establishments, the total number of employees has decreased with 8 % between 1991 and 2001 and was about 12 000 in 2001 implying rationalization of the branch. Accordingly, the number of employees per firm has, on average, decreased - 28 % during the period.

Roughly 50 mills are pure veneer and plywood mills with employment of approximately 5 000 people. Ten plants provide 65-70 % of the total domestic production. The output consists of 34 % softwood, 30 % birch, 28 % poplar, 7 % tropical wood and 1 % beech. The production of veneers amounted in 2003 to 460 000 m^3 and plywood to 445 000 m^3.

Industrial structure and market actors of secondary processing

In the secondary processing step the following sub-sectors are considered: Builders' joinery, flooring, mouldings, millwork and furniture.

[16] Most recently production was at the level of 22-23 billion, and imports almost 1.5 billion Euros.
[17] Since the mid-1990s, labour productivity has declined in Italy (OECD).

Builders' joinery
Within *builders' joinery* two sub-sectors are dominant, viz. windows & doors, and other builders' joinery. Other builders' joinery in turn comprises the production of, among others, *flooring* and *mouldings*.

As concerns window and door production the number of enterprises has decreased with 40 % to 17 500 in 2001, based on survey data from 1991 and 2001. While the decrease in employment was slightly less during the period, about 34 %, the average number of employees per enterprise has increased almost 10 % indicating a tendency towards larger production units.

For the manufacturers of other builders' joinery, including producers of *flooring* and *mouldings*, a strong increase with 60 per cent in the number of enterprises from 9 400 to 15 000 was recorded between the surveys in 1991 and 2001. In line with this increase of firms also the number of persons increased from 29 500 to 47 100 employees.

Millwork
The product groups included in millwork are related in the statistical nomenclature to the category "manufacturer of other products of wood, cork, straw and plaiting material", and especially to "other products of wood" as a sub-group that is further divided into "other wooden products" and "wooden picture frames". Other wooden products consists of approximately 6350 enterprises and 29 800 employees with a 20 % and 14 % increase, respectively, between 1991 and 2001. The average firm size measured as the number of employees per unit, has declined over 4 % and was almost five persons per firm in 2001. Obviously, this sub-sector represents small-scale businesses but it is a substantial employer in the wood sector.

The sub-sector wooden picture frames have experienced an opposite development comprising 4050 enterprises and 7250 employees at the end of the period. The corresponding changes are a decrease of 14 % of the number of enterprises and a decrease of 8 % of the number of employees over the period 1991 to 2001. The lesser change in employment has contributed to an increase of the average firm size to almost 2 persons per firm. Nevertheless, these enterprises are still real microbusinesses.

Another important part of millwork is "manufacture of wooden containers" in which also packaging is included. It is the second smallest as regards the number of enterprises – only the sub-sector woodbased panels has less employed. In 2001 altogether 1766 firms employed approximately 13 000 persons - a decline with 7 % and 12 %, respectively, during the last ten years. The average number of employed by company was over seven – the second highest figure after the sawmill and wood-based panel sectors.

Wooden furniture
According to the inventory in 2001 the entire furniture branch included approximately 33 200 enterprises employing around 210 000 people. Since the previous inventory in 1991 the number of firms has decreased with 9 % and the employees with 4 %. However, for the sub-sectors presented below, the individual development patterns are often contrasting the general branch pattern.

The manufactures of chairs and seats are further categorized in two sub-groups: (i) Chairs and seats including seats for aeroplanes and cars and (ii) Armchairs and sofas. In 2001 the former group consisted of 1232 and the latter of 9137 units. During the period about 50 % and 13 %, respectively, of the firms had been disappeared from the market. Regarding the development of the work force about one half in the former group lost their jobs. In contrast, the sub-sector armchairs and sofas employed 24 % more people (43 600) in 2001 than ten years earlier. Consequently, the average number of employees per firm in this case has increased but still these firms are micro businesses employing on the average only 5 persons each. For the producers of chairs and seats the corresponding figure is 14 persons per company. Consequently we find considerably larger firms in the latter sector, even if there has been an annual decline of 9 % on average during the period.

The second sub-sector, office furniture, parallel to the armchairs and sofas, has offered new employment opportunities. The increase in employment was 28 % from 1991 to 2001, and in 2001 the employment in the sub-sector was 38 400. Also the number of enterprises, 3 377, is a result of an increase with 57 % during the period. The average size, employees per firm, is now in the range of the sub-group chairs and seats (10-15 workers per firm). However, the substantial changes during the period have contributed to smaller units of office furniture manufacturers.

For the third category, kitchen furniture, a stable development is seen over the period as regards the number of enterprises. A slight increase with 1-2 % is recorded. Thus in 2001, approximately 960 enterprises employed 14 700 workers - 18 % increase in the working force. This strong increase in the number of workers has contributed to larger size units with 15 employees per enterprise.

The sub-sector, other furniture, employs about 90 000 workers, 43 % of the whole furniture branch and 52 % of all firms 17 000. Both the number of enterprises and employees has declined with 8-9 % from 1991 to 2001. Accordingly, this uniform development has kept the firm size at constant level of 5 persons per firm.

For the fourth sub-sector, mattresses, with 1 100 firms in 2001, a decrease of the number of firms and employees with 26 % and 13 %, respectively, is recorded. Subsequently, the average firm size has increased with 17 % now being within the same range than the sub-group other furniture; i.e. 5 persons per firm.

Institutional circumstances of primary and secondary processing arenas

Concerning the raw material procurement the FSC and PEFC certification systems have a role to play even for these arenas upstream in the value-adding chains. Besides the ordinary forest certification a more appropriate certification procedure for primary and secondary processors trading in wood product is based on the *chain-of-custody (CoC)* identification. It is a process by which the source of timber (raw material) is verified. Accordingly, the raw material has to be traced by an independent verifier from the forest through all the production phases until it (the product) reaches the end-user in order to be eligible to carry the CoC-certificate.

Also, the certification in accordance with the standards ISO 9000 and 14000 for Total Quality Management (TQM) is today self-evident for many enterprises, not only within the primary processing. The group of ISO 9000 standards is used in order to facilitate for the businesses to introduce and handle effective quality management systems. These standards form a coherent set of quality management standards that enhance, among others, national and international

trade. ISO 14000 in turn is used to organize, control, evaluate and report the activities carried out by enterprises with relevance to environmental impacts. By implementation of the standard a firm is enabled to show how it takes into account and report, e.g. environmental aspects in product development, and to describe the environmental characteristics of a product using commonly accepted terminology for such a specific area.

As a consequence of the Italian EU-membership the arenas are also affected by the so-called CE marking system for construction products, which is in effect since April 2004. The CE marking[18] is mandatory for a product, which is manufactured for permanent incorporation in construction works including both buildings and civil engineering in the European internal market.

Primary and secondary processors dealing with raw material procurement are also subject to specific laws, regulations and measures for rural and regional development within the framework of Rural Development Plans (RDP). In such cases an adequate measure of the RDP are incentives for improved forest exploitation and harvesting practices. Except from the RDP and other generic provisions for business activities applicable to all kind of businesses branch-specific national policy incentives targeting sawmilling and panel manufacturing are, however, rare. This is even the case regarding secondary wood processing, e.g., furniture manufacture.

Institutional and other actors associated with primary and secondary processing

On the national level, an institutional body with occasional activities and influence also on the primary and secondary processing is, among others, the National Council for Economics and Labour (CNEL).

The main certification bodies, FSC and PEFC are applying their systems of the chain-of-custody certification, respectively. To date the FSC has 86 CoC-certificates and PEFC has 11 CoC-certificates issued to forest industries, traders, and distributors[19]. Consequently, these are market actors along the whole supply chain, and not only within the primary and secondary processing.

Other institutional bodies on the national, regional and local (district) arenas are CATAS, a leading innovation and testing centre of furniture sector[20], and Promosedia[21], a marketing channel through exhibitions. The former has left substantial contributions to the furniture sector and is also involved in European and international research and development co-operation. The latter is the forum for and organizer of furniture exhibitions known worldwide.

Apart from these institutional bodies there are others within education of professionals for wood manufacturing, export consortiums, chambers of commerce, finance institutes and district committees. The interaction between enterprises, especially furniture manufacturing, and institutional actors have turned out to be successful leading to success and world reputation. However, the more specialised and international enterprises acting on global and

[18] Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products.

[19] In addition, four certificates within the category of forest owners and managers are awarded by the latter organisation.

[20] CATAS offers advanced tests on material, certification of products of various value-added degrees, manufacturing processes and working environments, and consultations fitted to the needs of single enterprises. http://www.catas.it/

[21] http://www.promosedia.it/index.php?l=eng

complex markets the more difficult will it be for the traditional supporting bodies to contribute. This is the case for the strongly export-oriented Italian furniture sector when deliveries from low-cost countries like China now enter the global market. At present, one of the measures taken against foreign competition is to diversify and establish daughter units in East European countries with still lower wage costs. It can, however, be questioned how this kind of approach is compatible with the unique structure of networks among enterprises firmly rooted within the districts.

Interactions and output of activities on the primary and secondary processing arenas – their functioning

Previously, national, regional and local[22] business policies for education, infrastructure, funding, export support, etc., have been of crucial importance for the industrial development. Today policy incentives from authorities on various administrative levels still tend to be of traditional type, e.g. funding and support of new establishments and/or to branches in economic difficulties. In fact, these actions seldom promote industrial districts, which seem to have developed their own performance codex across traditional administrative borders. The development of - for Italy typical - industrial districts (clusters of e.g. furniture manufacture[23]) is thus drawing more on other kind of incentives and contributing factors. The driving-forces of today can be described as (i) endogenous and (ii) exogenous factors (Anon., 2003b).

Regarding (i) endogenous factors the issues and circumstances behind the earlier development (history) of districts (that resulted in formation of districts) are considered to be of crucial importance for understanding of how and why industrial districts have succeeded in evolving as they have done. Besides the '*path dependency*' of the current status of districts the spin-offs' in the form of '*cloning*' of and '*vertical specialization*' from mother units have been of outmost importance for the evolving network structure of the districts. The fourth characteristic is '*spill over*' which led to an establishment of supporting and/or service activities for the mother branch, for example, woodworking machines for furniture manufacturing. These four characteristics are in a way the means that resulted in the unique network structure of districts.

At the individual level there is a strong tradition of private ownership even in agriculture, craftsmanship, entrepreneurship in industry and trade, and a tradition of co-operation between branches. Together with other common values (social capital and/or community culture) this created a solid basis for successful interactions during the period of structural changes that have influenced all actors in Italian society transforming agriculture, industry, trade and all other sectors of society since long ago. The common social capital of the districts leads to lower transaction costs enhancing competitiveness. Also, the existence of many family enterprises with relatives as employees may have changed the status of an employee in general. Previously considered 'a worker' the role of an employee has gradually become a 'co-operator' with expert competence crucial for the employer, a development in line with the need for increasing speciality. This expertise may also open for entrepreneurial private initiatives of its own, such as outsourcing.

[22] In Italy policy making occurs on four administrative levels: The national, regional, provincial and community levels. With respect to regional administration and governance five regions (Friuli-Venezia Giulia, Sardinia, Sicily, Trentino-Alto Adige and Valle d'Aosta) of altogether 20 Italian regions are relatively independent administrative units with certain freedom against central government in the field of regional legislative issues and the use of tax income. For example, for these 'autonomous' regions approximately half of the tax income is at disposal whereas the other regions control only a small part of their taxes.

[23] Concentrated to Lombardy, Veneto, Emilia Romagna, Tuscany and Marche (Anon. 2003a).

Moreover, still another contributing factor for the rise of cluster formations and their success is the advanced research carried out in co-operation with the cluster enterprises, as well as collective marketing efforts. As is pointed out for furniture manufacturing, a similar small-scale structure is recorded for the manufacturers of builders' joinery (Table 4), as well as manufacturers of windows and doors (Table 5). Two wood consumption centres of Italy are primarily concentrated to the densely populated North and the big cities Rome and Naples. The industrial centres of wood production are concentrated to the North; Lombardia, Veneto, Campania, etc., areas as is obvious from the tables. The industry is characterized by its small-scale networking that, however, on the aggregate perspective acts on the larger scale and in the case of furniture worldwide.

Parallel to the development of endogenous factors that have turned out favourably as described above there have been a number of (ii) *exogenous* events contributing to success during the past decades. Among these is the increased demand for wood products in West Europe through the EU, which is the most important contribution to development. Important are also economic slowdowns that have forced structural changes. In such situations, the local conditions based on earlier foundations have been a good basis for further and successful branch development within wood and woodworking industries in the districts.

Table 4. Regional distribution of companies in the builders' joinery industries. Source: Centro Studi Cosmit/Federlegno-Arredo.

Region	**No of companies**	**Distribution** (per cent)	**Employed**	**Distribution** (per cent)	**Employed per company**
Lombardia	2331	15.6	7620	16.2	3.3
Veneto	1612	10.8	5902	12.5	3.7
Trentino-Alto Adige	1235	8.3	5122	10.9	4.1
Piemonte	1154	7.7	3018	6.4	2.6
Toscana	1092	7.3	3630	7.7	3.3
Lazio	1026	6.9	2284	4.8	2.2
Emilia-Romagna	928	6.2	3105	6.6	3.3
Campania	916	6.1	2092	4.4	2.3
Puglia	796	5.3	2493	5.3	3.1
Sicilia	779	5.2	1635	3.5	2.1
Friuli-Venezia Giulia	525	3.5	2261	4.8	4.3
Sardegna	465	3.1	1565	3.3	3.4
Marche	411	2.7	1977	4.2	4.8
Calabria	391	2.6	766	1.6	2.0
Liguria	390	2.6	1003	2.1	2.6
Umbria	289	1.9	875	1.9	3.0
Abruzzo	259	1.7	903	1.9	3.5
Basilicata	176	1.2	467	1.0	2.7
Valle d'Aosta	106	0.7	256	0.5	2.4
Molise	66	0.4	134	0.3	2.0
Italy	**14947**	**100.0**	**47108**	**100.0**	**3.2**

Table 5. Regional distribution of companies in the door and windows industries. Source: Centre Studi Cosmit/Federlegno-Arredo.

Region	**No of companies**	**Distribution** (per cent)	**Employed**	**Distribution** (per cent)	**Employed per company**
Lombardia	2264	13.0	6856	14.1	3.0
Veneto	1994	11.4	7168	14.7	3.6
Campania	1367	7.8	2836	5.8	2.1
Puglia	1348	7.7	2831	5.8	2.1
Sicilia	1309	7.5	2640	5.4	2.0
Piemonte	1264	7.2	4074	8.4	3.2
Toscana	1171	6.7	3057	6.3	2.6
Lazio	1117	6.4	2556	5.3	2.3
Emilia-Romagna	1099	6.3	4770	9.8	4.3
Calabria	764	4.4	1354	2.8	1.8
Sardegna	722	4.1	1688	3.5	2.3
Marche	553	3.2	1538	3.2	2.8
Abruzzo	504	2.9	1286	2.6	2.6
Trentino-Alto Adige	474	2.7	1958	4.0	4.1
Friuli-Venezia Giulia	436	2.5	1335	2.7	3.1
Umbria	329	1.9	1107	2.3	3.4
Liguria	286	1.6	585	1.2	2.0
Basilicata	252	1.4	473	1.0	1.9
Molise	150	0.9	352	0.7	2.3
Valle d'Aosta	71	0.4	183	0.4	2.6
Italy	**17474**	**100.0**	**48647**	**100.0**	**2.8**

In the present market situation of spring 2005 the previously created strengths are highly needed. Besides confirming the highly competitive world market, of which Italian wood processors are a part the survey carried out on enterprises indicates an even hardening market conditions for Italian producers in several respects. For example, the procurement of wood products for value-adding processes in manufacturing of veneer, plywood, flooring, mouldings (e.g., wooden profiles for frames) and furniture is strongly relying on imports. A sample of interviews on such enterprises indicates that direct transactions with foreign producers are expected to increase, whereas supplies through importers/agents may decline during the next years. However, purchasing through importers/agents is still the dominating type of raw material procurement. Due to very shifting business strategies it is impossible to figure out common patterns of species distribution; some trade in tropical and temperate wood, some in softwood or, as usual, mixing the wood species. Of course the same reason is valid for the very shifting origin of imports.

Irregular implementation of, e.g., customs practices, systems for forest certification as well as phytosanitary certification and Chain-of-Custody identification, or a total absence of these measures, is one of the factors contributing to irregularity and quality problems of deliveries. Furthermore, the lack or irregular implementation of standardized measurement systems for traded products is harming the transaction between sellers and buyers. In general, lack of quality consistency and irregular supply of wood products from tropical sources are considered a serious drawback. Therefore, a common opinion seems to be that raw material acquisition from tropical sources is becoming problematic, especially when there is a severe price competition on the market.

Moreover, market actors are forced, due to an increasing pressure, mainly from environmental NGOs, but also from media, etc., to consider how their way of procurement may affect protection of the tropical resource base. There are, however, serious doubts about the capacity of measures like certification, CoC-identification, etc., even if implemented, to protect the resource base. And accordingly, if such measures will be worth taking in order to secure and enhance the raw material accessibility. Under such circumstances it is quite logical that support from branch organizations and other public institutions in terms of lobbying, promotion, certification, research and technical assistance, etc., is appreciated but also, at the same time, considered with skepticism without exactly knowing if it is good or bad for the business. Instead, perhaps more operative support is suggested in the form of, for example, tax relieves for enterprises and antidumping measures against cheap (competing) imports from low-cost countries like China and so far Eastern Europe.

Furthermore, it is known that producer countries are enforced to implement policies for conservation and protection of the environment, which will reduce extraction and trade of less processed products. The respondents argue that supplies from tropical regions in the southern hemisphere, in common, will decline even if in contrast deliveries specifically from South America might increase. In all, these kinds of business conditions are enforcing actors to substitute tropical products by temperate hardwoods and softwoods but also by plastics and other non-wood materials.

Regarding the demand for final products the respondents seem to look forward for a stable or increasing domestic and export demand in the EU over the next years. The market situation for tropical products is generally assessed to be difficult for the reasons named above. On the other hand, 'fashion' strongly influences which species are needed from time to time for manufacturing of wood products like furniture, flooring, etc., in certain high-value segments, and therefore there always will be demand for unusual species within such high-value market niches.

When the competition of wood products is assumed to harden actors seem to consider increased product specialization and diversification of production as important means for maintaining or improving their competitiveness. Other possible means proposed are increased 'use' of just-in-time and flexible production, and depending on the business strategy, production of semi-finished products. Such actions may enhance also price competitiveness contributing to overall and improved profitability. With respect to wood procurement the respondents express a pessimistic view implying that the use (and trade) of tropical products, also of various value-added degrees, may not increase, rather decrease[24]. However, due to a limited scope of the survey the views presented are not statistically verified but they will present various action directions penetrated by the actors within the primary and secondary processing arena.

3.1.4 End-uses mainly within and for construction sector

The arena of end-uses mainly is concentrated to the construction sector with the structure and the actors involved in building activities for residential and non-residential construction.

[24] The respondents are worried about China's strong economic development and its growing competitiveness on the global market. China is expected to become soon the main buyer of timber from the timber exporting countries in Southeast Asia, which may even more reduce the availability of wood raw materials exported to Italy.

Industrial structure

The construction sector consists of four parts: (i) residential construction, (ii) non-residential construction, (iii) civil engineering and (iv) other construction (including do-it-yourself -DIY and services).

The largest sector is residential construction followed by non-residential construction. It is obvious that the renovation sector is larger than new construction in all sectors except for non-residential construction, where new construction and renovation are of equal size (Table 6).

Table 6. The construction sector in 2003 (Million Euro).

	Residential construction	*Non-residential construction*	*Total Construction*	*Civil engineering*	*Others incl. DIY*	*Total output*
	(a)	(b)	(a+b)	(c)		(a+b+c)
New	26137	21838	47976	15255		
Renovation	38496	21653	60149	18157		
Total	64633	43492	108125	33412	23757	165294

The output from new residential completions amounted to 214 000 units in 2003 but is expected to grow in 2004, where new construction will reach a peak in 2004 with 238 000 units. The factors underlying the demand for new dwellings are essentially economic growth, interest rates and demographic factors (population growth, age composition and household formation). Here, one prominent factor that up to now has been important is the 'baby-boom' that created increased demand for new housing in the 1990s. This factor does not have any substantial effect from 2004.

According to a branch survey carried out by Federlegno-Arredo (2004) the activities on the renovation market show no increase, which is due to strict economic conditions in the country. It is, however, expected that this sector will face growth after 2006 because of the increasing needs for renovations. The development of the non-residential buildings is static, which is due to a number of factors such as demand for leisure, services, industry, infrastructure, commercial areas and urban spaces. This subsector has good opportunities for substantial growth, but much is due the development of the public sector and consequently on political decisions on public spending.

The development of the civil engineering sector depends essentially on factors such as requirements on transport networks and infrastructures for water, power and telecommunications. The sector is characterised by steady growth; between 6.2 and 9 per cent over the period from 2001 to 2004. In real terms, the whole construction sector showed recovery at 1.3 per cent in 2004 after 2003 which showed only 0.7 per cent growth, the lowest recorded. Of the subsectors, new residential building as well as civil engineering show steady growth, while the non-residential construction as well as builders' repair and maintenance (R&M) decline (Figure 3).

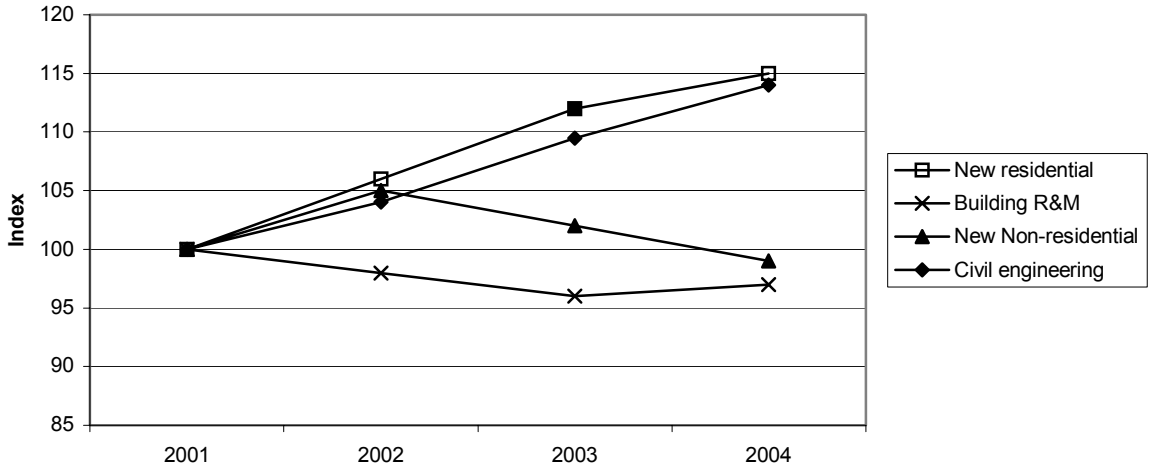

Figure 3. Construction sectors by type. (2001=100).

In conclusion the construction market is characterised by:
- steady growth after ten years and still growing
- a tendency of lower growth rates can be observed
- growth in quantity has slowed down while prices increase.

The main uses of wood in construction are in windows, doors, panelling and roofing[25]. Other uses are for temporary purposes as scaffoldings, concrete forming, etc.

Institutional circumstances
Perhaps one of the most substantial changes affecting the whole construction sector and its practices since April 2004 is CE marking system[26] for construction products according to Council Directive 89/106/EEC of 21 December 1988. The CE marking is mandatory for a product which is produced for incorporation in a permanent manner in construction works including both buildings and civil engineering works with the European internal market.

3.2 Supply chains and demand for hardwoods and softwoods

3.2.1 Industrial roundwood

Statistics on industrial roundwood include the following sub-categories: (i) sawlogs and veneer logs (coniferous and non-coniferous), (ii) pulpwood, round and split, (iii) pulpwood and particles and (iv) other industrial roundwood.

Apparent consumption of coniferous roundwood amounts roughly to 3-3.5 million m^3 annually during the period (1997-2003). The removals show very stable development at the level of 1 million m^3 thus indicating that the annual imports vary between 2-2.5 million m^3 (Figure 4).

[25] In 2000 wood consumption for roofs was estimated to 1.4 million m^3, for flooring, etc., to 0.6 million m^3 and for structural elements and wooden houses 0.05 million m^3.
[26] See http://europa.eu.int/comm/enterprise/newapproach/standardization/harmstds/reflist/construc.html

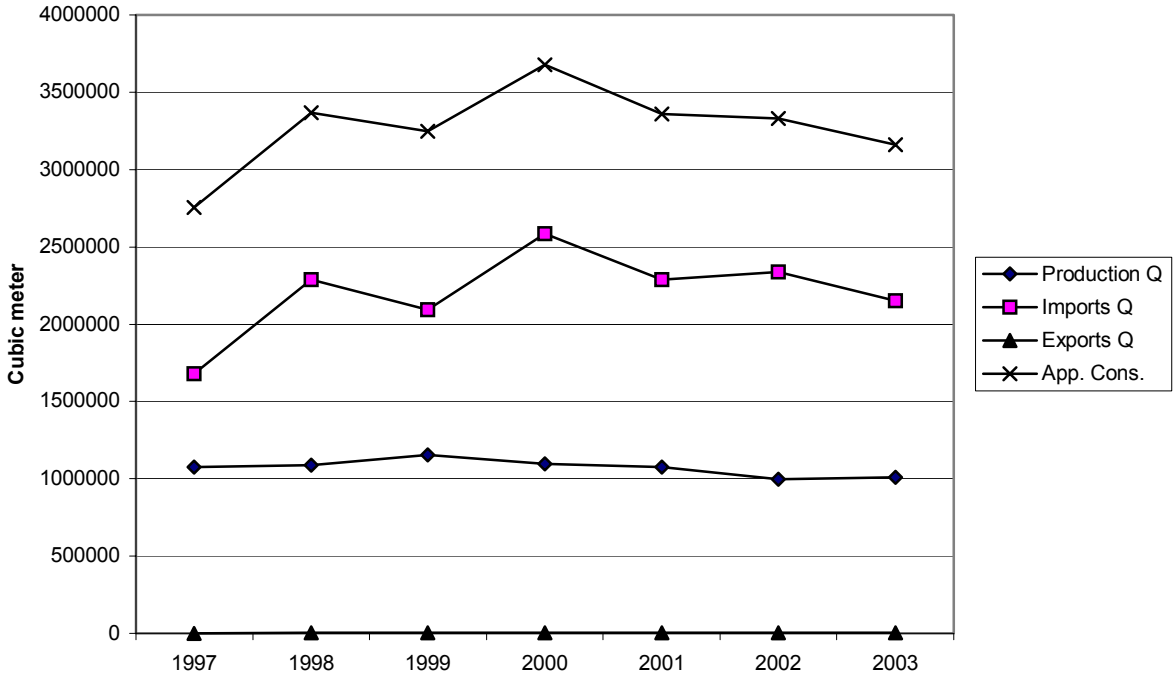

Figure 4. Production, imports, exports and apparent consumption of coniferous industrial roundwood 1997-2003. Source: FAO.

The exports are very limited and have experienced drastic changes over the period of five year. In 1999 approximately 75 % of exports (value share) were directed to the EU-area[27] while the share in 2003 was below 10 %. During the period, instead, Other Europe, and especially Switzerland, has become the main target area with its share of more than 70 per cent in 2003 (Figure 5).

Concerning imports of industrial roundwood from various supply regions there are generally three sourcing areas that seem to keep stable market shares over the period (Figure 6). Around 65 percent of imports originate from the EU, 30 % from Other Europe and finally small quantities from Central and East Europe that accounts for the remaining market shares at the annual level of 5 per cent. Imports from other region are marginal.

[27] See Appendix 6 for definition of the regions.

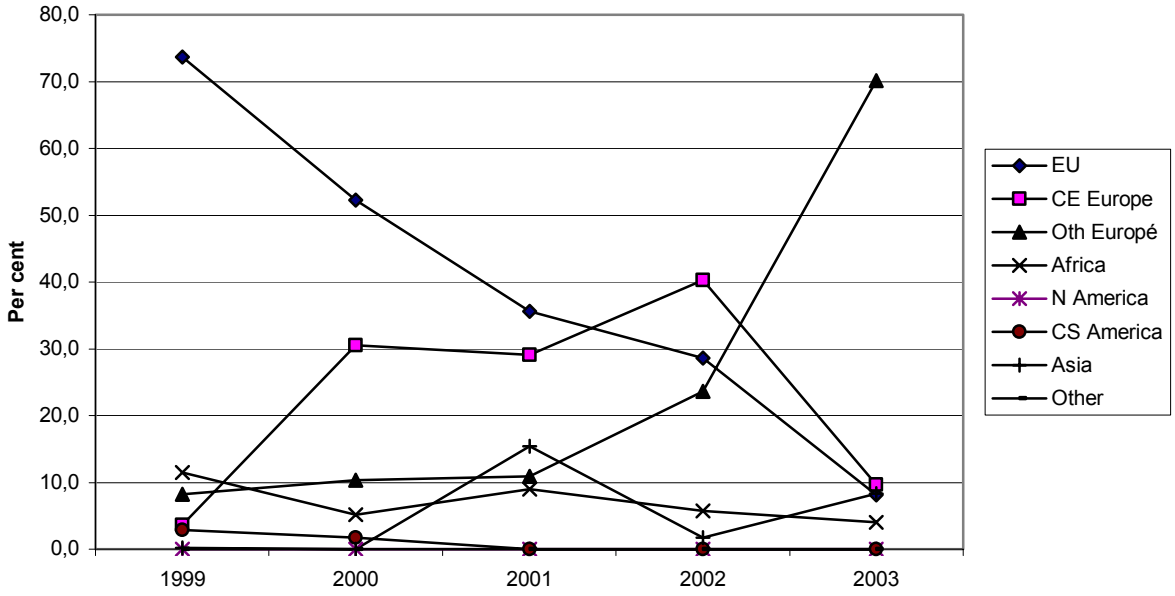

Figure 5. Exports of coniferous industrial roundwood by region (Value distribution). Source: ISTAT.

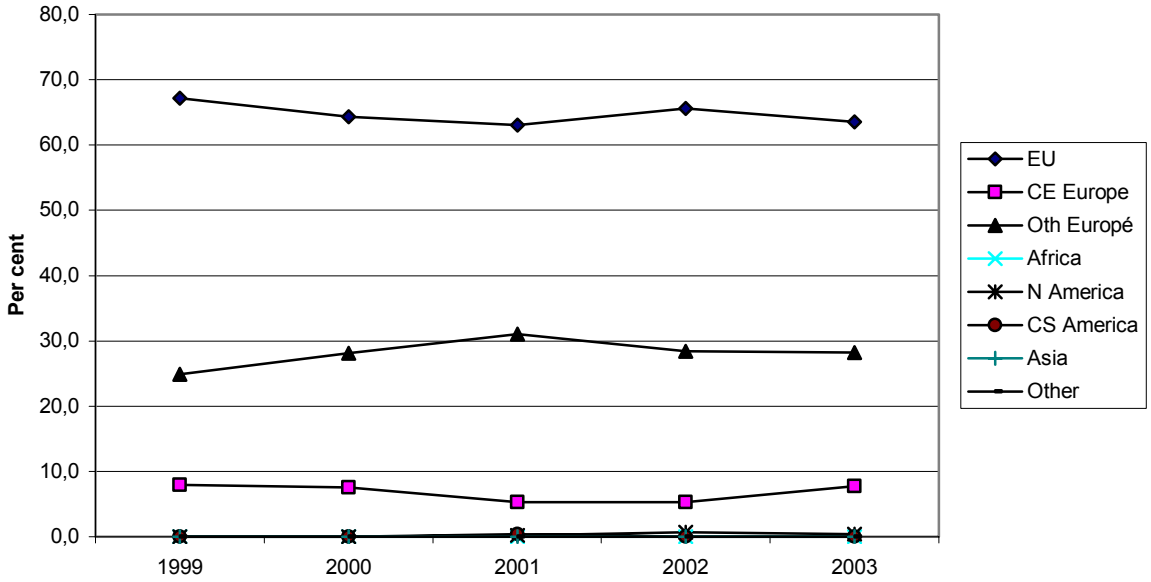

Figure 6. Imports of coniferous industrial roundwood by region (Value distribution). Source: ISTAT.

Regarding the removals of non-coniferous, non-tropical roundwood they seem to approach the level of 1.5-1.6 million m^3 compared with the output of around 3 million m^3 per annum in the late 1990's (Figure 7). A similar, but not so early and deep decrease is recorded for the imports[28]. Altogether these developments indicate decrease of Italian consumption of non-

[28] Noticeable that the FAO data for import of non-coniferous may include quantities of tropical industrial roundwood.

coniferous roundwood from the level of 6 million m^3 to about 4 million m^3 at the end of the period. In other words, more than one half of the lost quantity is due to the decreasing output from the Italian forests. The reason for that is not obvious.

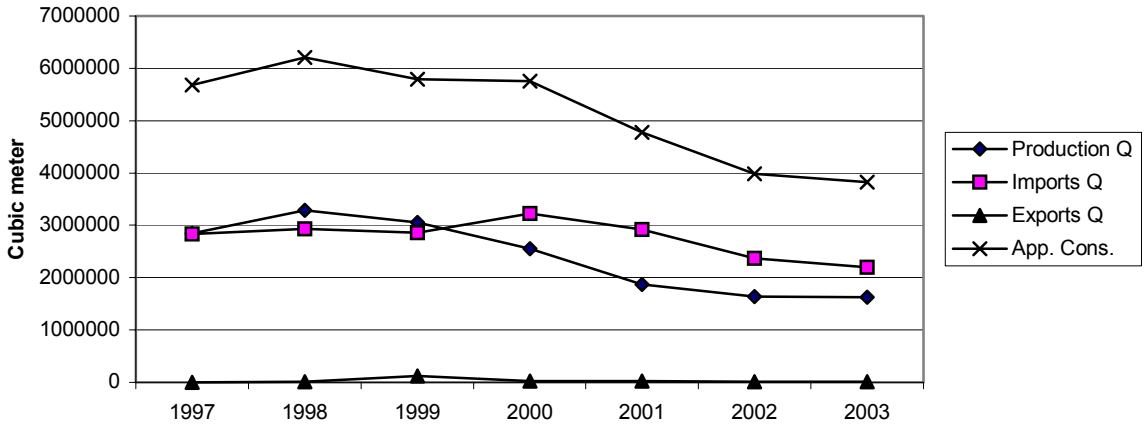

Figure 7. Production, imports, exports and apparent consumption of non-coniferous industrial roundwood 1997-2003. Source: FAO.

As to the exports these are very limited. The main export destinations are the EU, Other Europe and Central and East Europe (Figure 8).

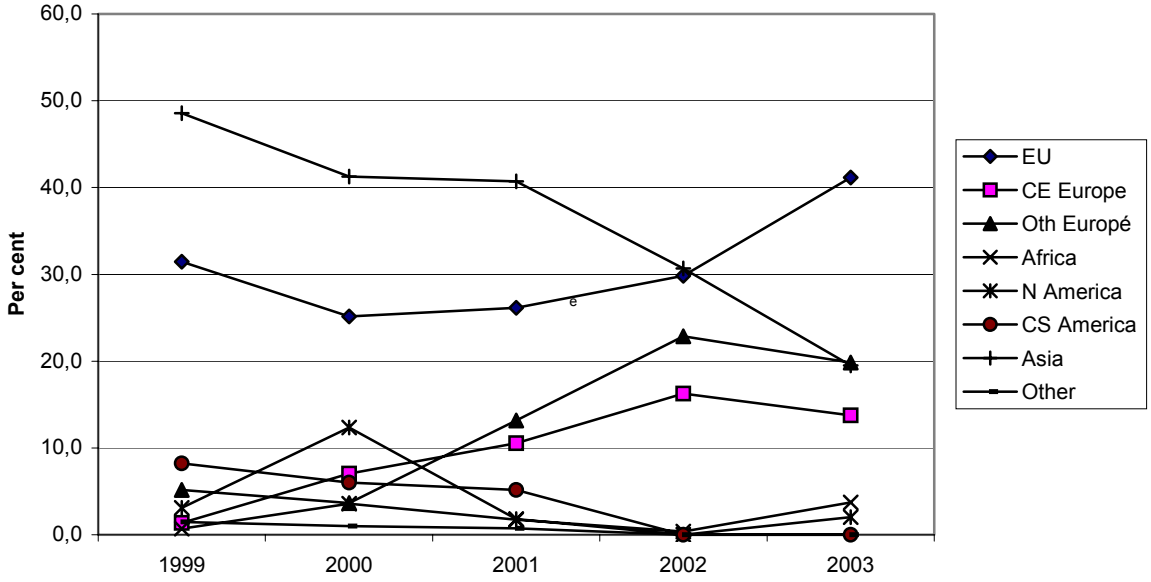

Figure 8. Exports of non-coniferous, non-tropical industrial roundwood by region (Value distribution). Source: ISTAT.

Imports of this assortment are derived from two sources; the EU accounting for 35 % at the end of the period when Central and East Europe accounts for 32 % after a slight increase since 1999 (Figure 9). In opposite the EU has experienced a similar decline since 1999. Other sourcing areas are North America covering 12 % occasionally 15 % of the imports and Africa for which an increasing trend is noted but however at the lower level than Asia. Cameroon, Gabon and Congo are substantial suppliers in Africa. Imports secured from Other Europe tend

to decrease but notably the imports from Central and South America, mainly Uruguay, have recently increased and obtain the market share of 4 per cent. Other source regions are of very limited importance.

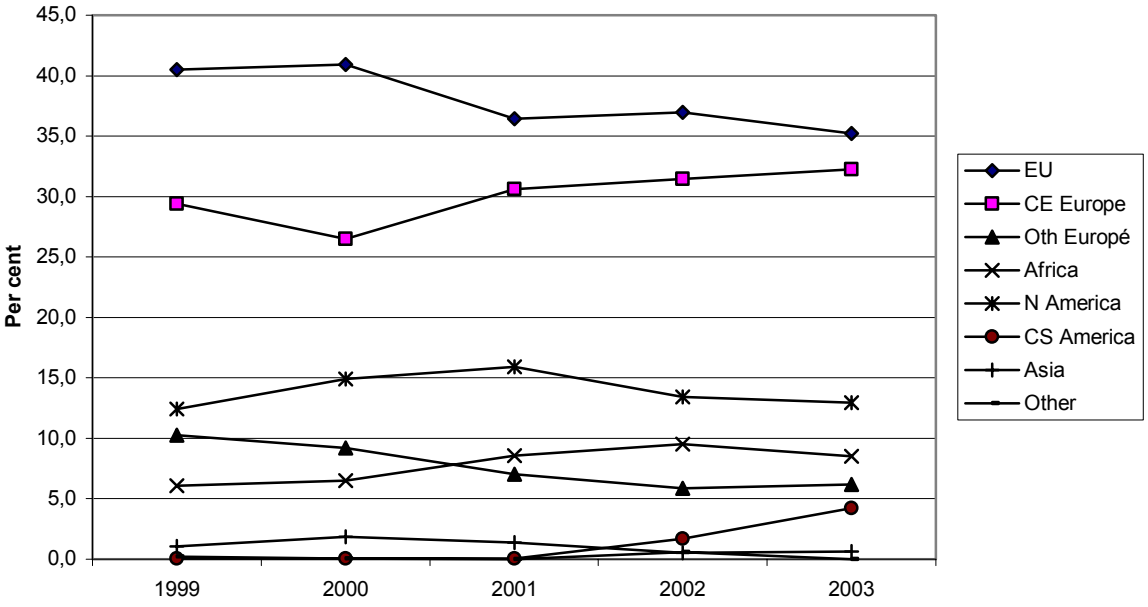

Figure 9. Imports of non-coniferous, non-tropical industrial roundwood by region (Value distribution). Source: ISTAT.

Exports of tropical industrial roundwood is marginal, only 4.2 million Euros in 2003. The value share of the total exports of non-coniferous industrial roundwood in 2003, which is already small, is hardly over 10 %. The distribution of (value) market shares is uneven but it has remained relatively stable over the period; the EU accounts for 60 % to 65 % of the exports and the remaining shares are then distributed between Asia, that show a decreasing trend, and Central and East Europe, Other Europe and Other regions all below 10 % each (Figure 10).

The imports of tropical industrial roundwood that accounted for 26 % of the total imports of non-coniferous industrial roundwood of 252 million Euros in 2003 are completely dominated by sourcing from Africa (Figure 11). Showing a weakly declining market share over the period Africa still in 2003 covered almost 90 % of the supplies of tropical industrial roundwood to Italy. Cameroon, Congo, Central African Republic, Gabon and Liberia are substantial suppliers in Africa. Deliveries from Asia, among others from Myanmar, have in contrast, increased and ended up to 8 per cent in 2003. Asia seems to have gained the market shares that suppliers in Africa lost during the period. Also, there are signs of slight increase of the imports form the EU countries.

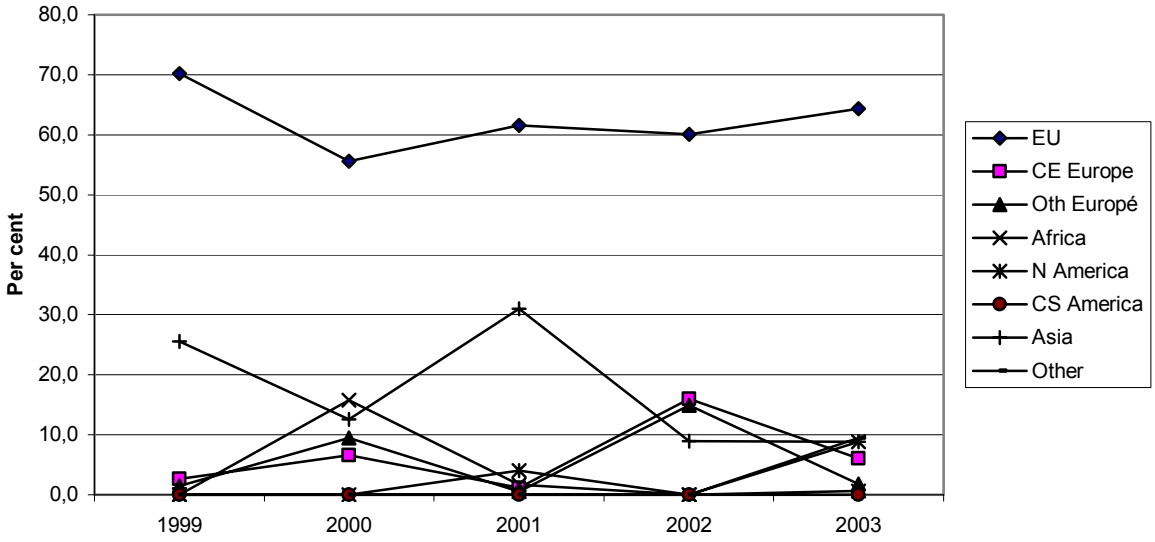

Figure 10. Exports of tropical industrial roundwood by region (Value distribution). Source: ISTAT.

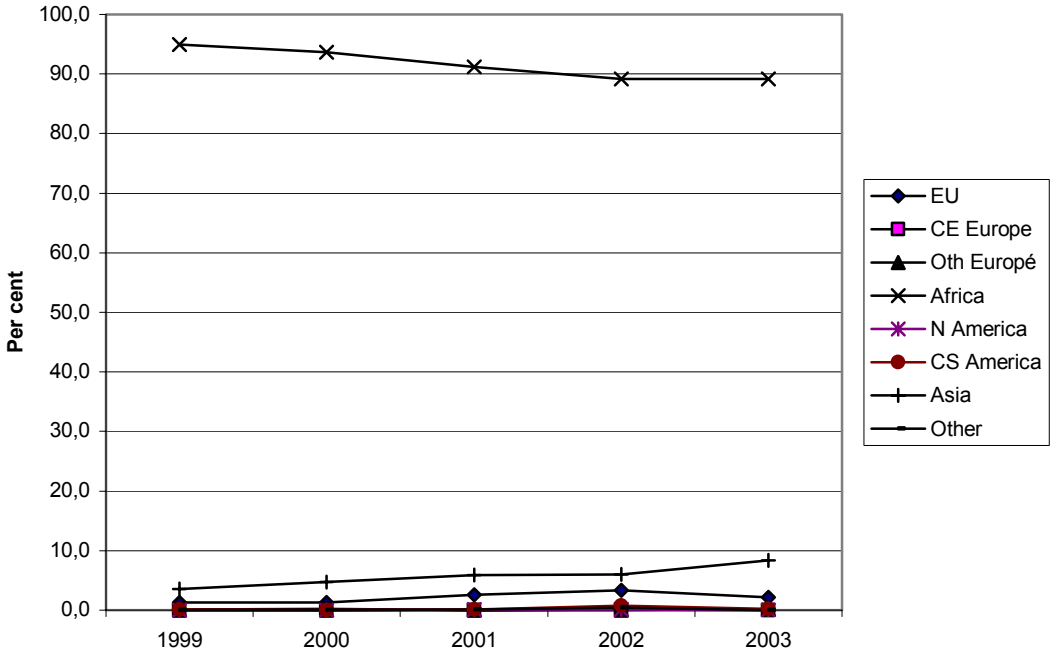

Figure 11. Imports of tropical industrial roundwood by region (Value distribution). Source: ISTAT.

In conclusion, Italy is exporting industrial roundwood to the EU, Central and East Europe as well as to Other Europe. However, the quantity exported is relatively limited compared with the imports. The largest imports come from the EU but their relative importance is decreasing. Central and East Europe, and Other Europe are substantial sourcing regions showing an increasing tendency. Approximately 82 % of the export value constitutes of non-coniferous species. Coniferous exports decline whereas the exports of tropical species tend to increase. Also the imports are dominated by non-coniferous, non-tropical species that accounts for about 48 % of the import value, but they are about to decrease in favour of coniferous

imports. Imports of tropical non-coniferous industrial roundwood show a relatively constant value share at the level of 16 % with a tendency to decline.

3.2.2 Sawnwood

The section presents production, exports and imports as well as apparent consumption of (i) coniferous and non-coniferous sawnwood based on the data from FAO. For broad-leaved (non-coniferous) sawnwood, the focus is more on the trade of (ii) non-coniferous other than tropical and (iii) tropical sawnwood in order to highlight the specific circumstances for these two sub-groups[29].

The consumption of **coniferous sawnwood** in Italy has varied with a weakly increasing trend within the range of roughly 6-7 million m^3 of which quantity nearly 90 % is imported. The domestic production shows a stable annual level of 0.7 million m^3. The exports are limited (Figure 12).

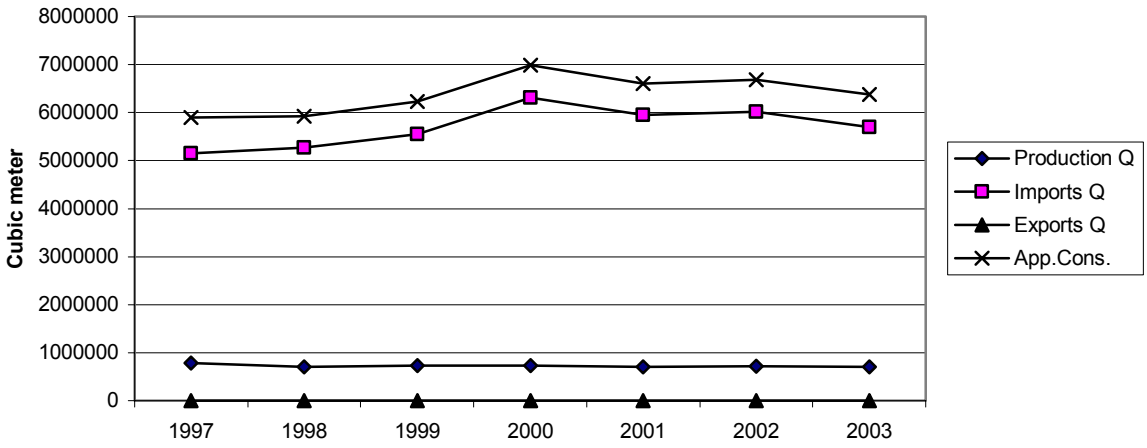

Figure 12. Production, imports, exports and apparent consumption of coniferous sawnwood 1997-2003. Source: FAO.

The exports of coniferous sawnwood are directed to the EU-area that accounts for slightly more than 50 % at the end of the period (Figure 13). Spain and Austria are important trading partners. Deliveries to Other Europe, where Switzerland dominates, show a weakly increasing trend ending up at the level of 23 per cent in 2003. In contrast, supplies to Asia have decreased and account in 2003 for less than 10 %, which is the current level also for deliveries to Africa and Central and East Europe.

The imports show a very stable development (Figure 14). Around 80 per cent is sourced from the EU where again Austria is a considerable supplier. Around 11 % to 13 % originate from Central and East Europe. Here the Russian Federation dominates as an origin for Italian imports. For the supply from North America, mostly from Canada, a slight shift downward to the level of 5 % to 6 % during the most recent years can be recognized.

[29] Definitions and customs codes for sawnwood within sub-groups (i) coniferous, (ii) non-coniferous and (iii) tropical are given in Appendix 7. Noticeable is that the data availability differs. Time-series for coniferous cover from 1999 to 2003, for non-coniferous from 2000 to 2003 and for tropical from 2001 to 2003.

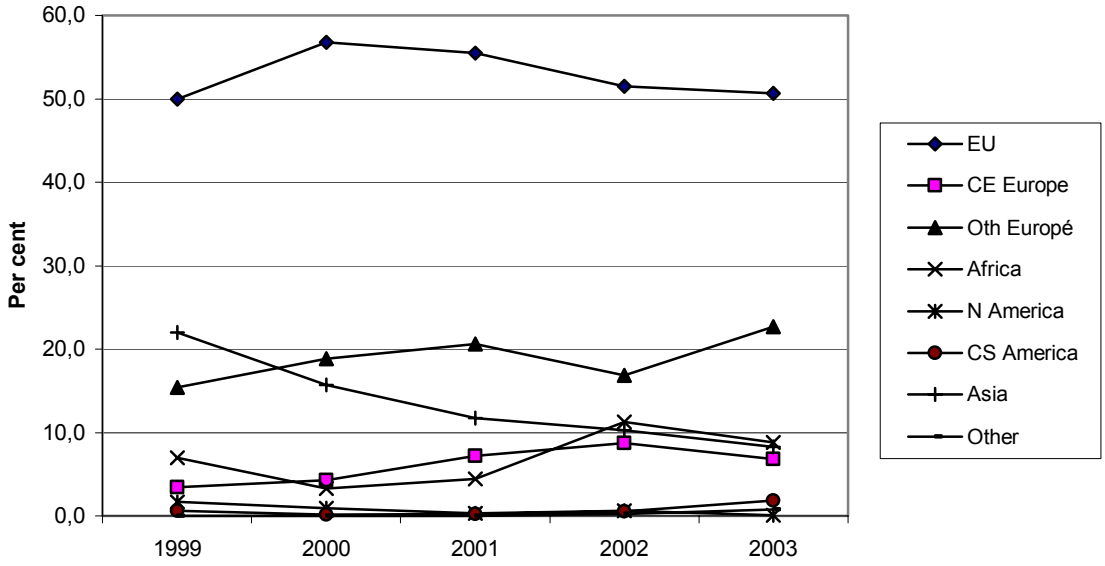

Figure 13. Exports of coniferous sawnwood by region. (Value distribution). Source: ISTAT.

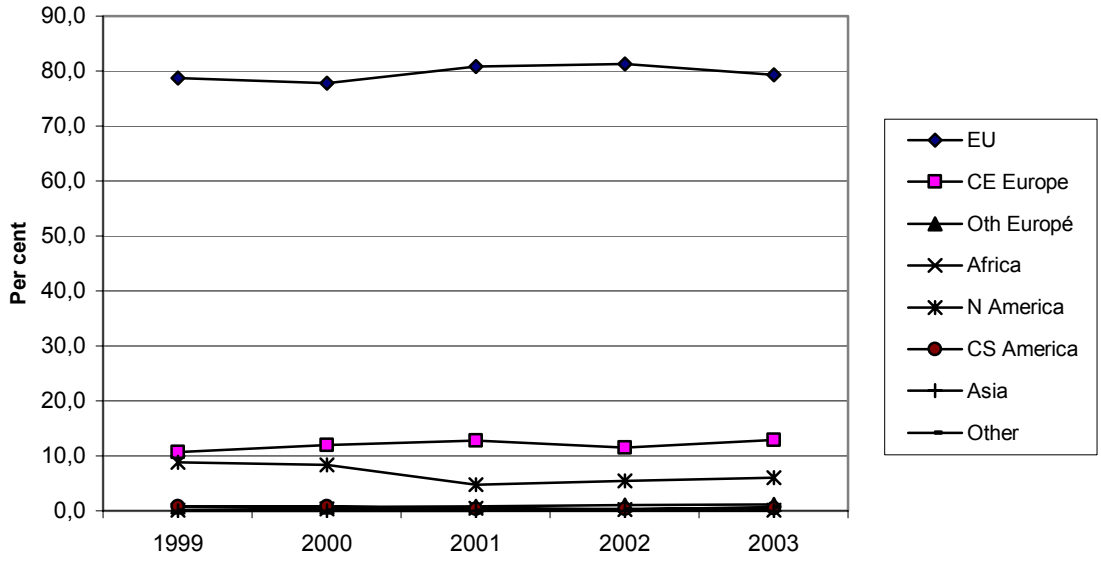

Figure 14. Imports of coniferous sawnwood by region. (Value distribution). Source: ISTAT.

For non-coniferous sawnwood apparent consumption varies around 2.6 million m^3 over the last part of the period, which is marginally lower level that was experienced 1998-2000. This shift of consumption level is reflected also in the import quantities (Figure 15) that over the years have constituted about ¾ of the Italian consumption of non-coniferous sawnwood. Moreover, 30 % of the imports constitute of tropical sawnwood expressed in value terms. The domestic production is annually on the level of 0.9 million m^3 of which roughly 0.12-0.15 million m^3 is exported. Of the export value of non-coniferous sawnwood approximately 15 % is associated with sawnwood based on processing of tropical species.

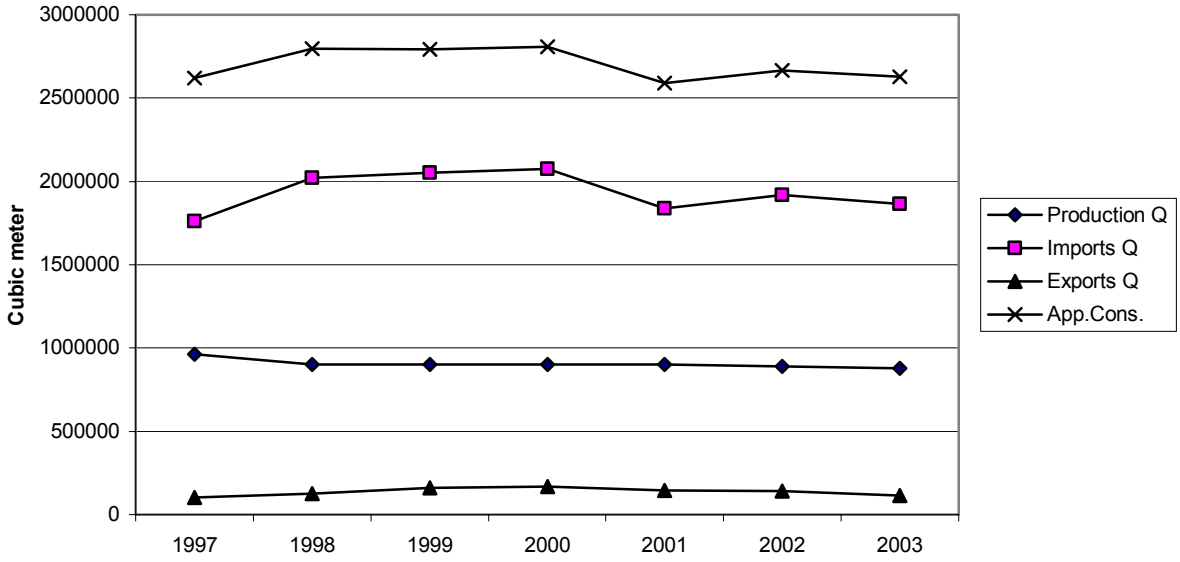

Figure 15. Production, imports, exports and apparent consumption of non-coniferous sawnwood 1997-2003. Source: FAO.

Considering the exports of non-coniferous (non-tropical) sawnwood a substantial change has taken place during the period (Figure 16). Previously, 2/3 of the exports were directed to Asia, and especially to Hong Kong, China and Japan but in 2003 hardly 1/3 are delivered to that region. Instead, the EU has become a dominating trading partner accounting in 2003 almost for a half of the export quantity supplied from Italy. The EU where Germany, Spain and France dominate as importing countries has thus experienced a strong upward trend over the period. Another region with an upward tendency is Central and East Europe in which Slovenia is one of the most important destinations. All the other regions account for less than 5 per cent of Italian exports of non-coniferous (non-tropical) sawnwood.

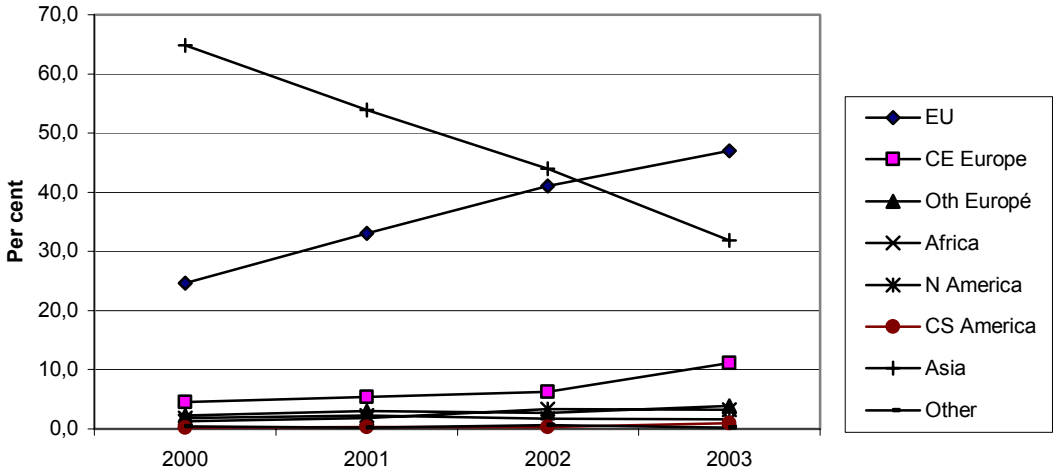

Figure 16. Exports of non-coniferous – non-tropical - sawnwood by region. (Value distribution). Source: ISTAT.

Imports of non-coniferous (non-tropical) sawnwood are dominated by Central and East Europe, in particular Croatia, Romania, Hungary, Bosnia-Herzegovina and Slovenia that show an increasing trend over the period and account for 2/3 of the imports in 2003. An opposite development has occurred for the North American, and African imports that have declined to 22 % and 4 %, respectively, at the end of the period (Figure 17). Still, the United States (North America) as well as Cameroon and Ivory Coast (Africa) are considerable suppliers of non-tropical, broad-leaved, sawnwood to Italy. Noticeable is that sourcing from the EU accounts for 11 % to 12 % and show a stable development over the period. Imports from other regions, Central and South America, Other Europe, Asia and 'others' are also stable but limited to few per cent, respectively.

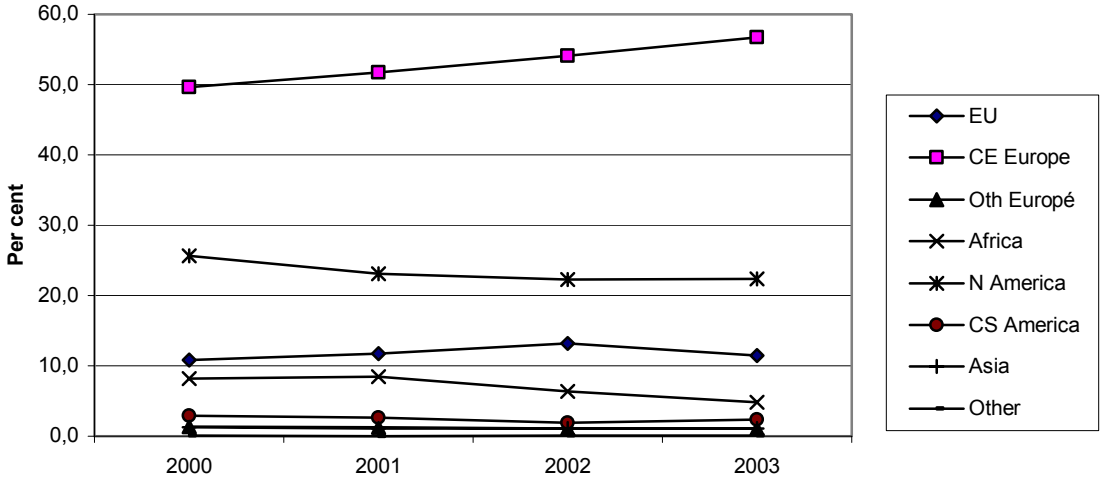

Figure 17. Imports of non-coniferous – non-tropical - sawnwood by region. (Value distribution). Source: ISTAT.

Regarding the exports of tropical sawnwood the available data reveal that the Asian market has experienced a remarkable decrease over a few years (Figure 18).

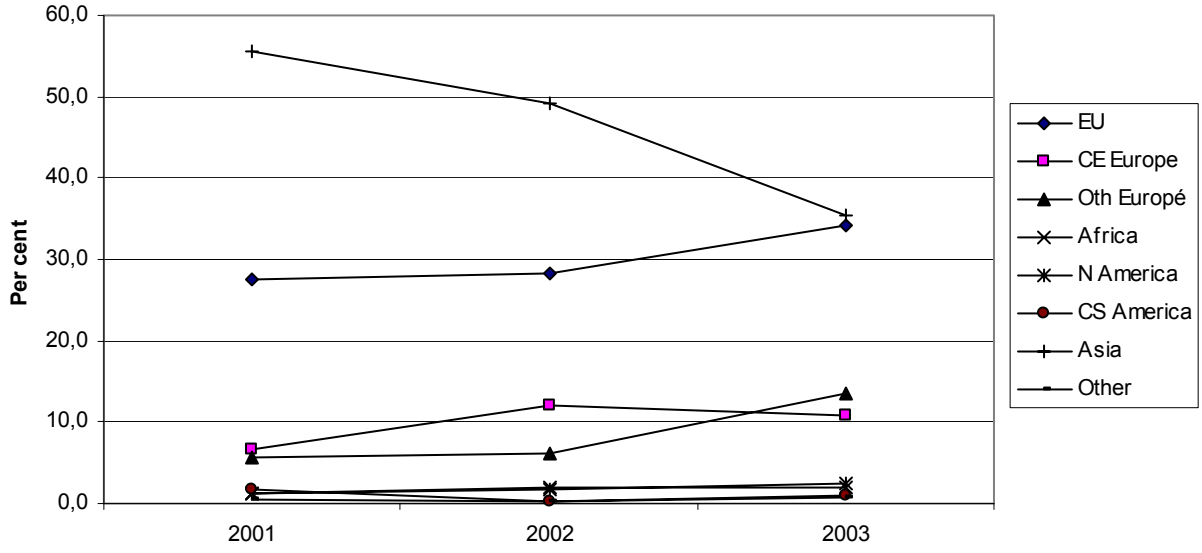

Figure 18. Exports of tropical sawnwood by region. (Value distribution). Source: ISTAT.

In 2003, however, it still accounts for around 1/3 of Italian exports of tropical sawnwood. Hong Kong, Japan and China have been the most important destinations within Asia. The regions showing increasing shares are the EU and Other Europe that account for approximately 34 % and 14 %, respectively, at the end of the period. Within these two regions United Kingdom, Austria and Turkey are prominent trading partners. Also Central and East Europe, and especially Slovenia and Croatia there, has remained as an important destination for Italian exports at the level of slightly over 10 % recently. Exports to other regions are marginal.

A large share of tropical sawnwood imports originates to an extensive degree from Africa (Figure 19). Approximately 70 per cent of imports originate from this region where Cameroon, Ivory Coast, Gabon and Ghana dominate. However, recently the import share of Africa shows a slight decline. In contrast, deliveries from Asia, in particular from Malaysia, Indonesia and Myanmar, have increased to 27 per cent of Italian imports of tropical sawnwood in 2003. Also Central and South America tends to increase its market shares but from a low level. In 2003 the market share was 5 per cent with Brazil as the dominant exporter in the region. Imports from all the other regions are very limited without any tendency to increase during the observation period. Within the EU France is, however, a noticeable trading partner.

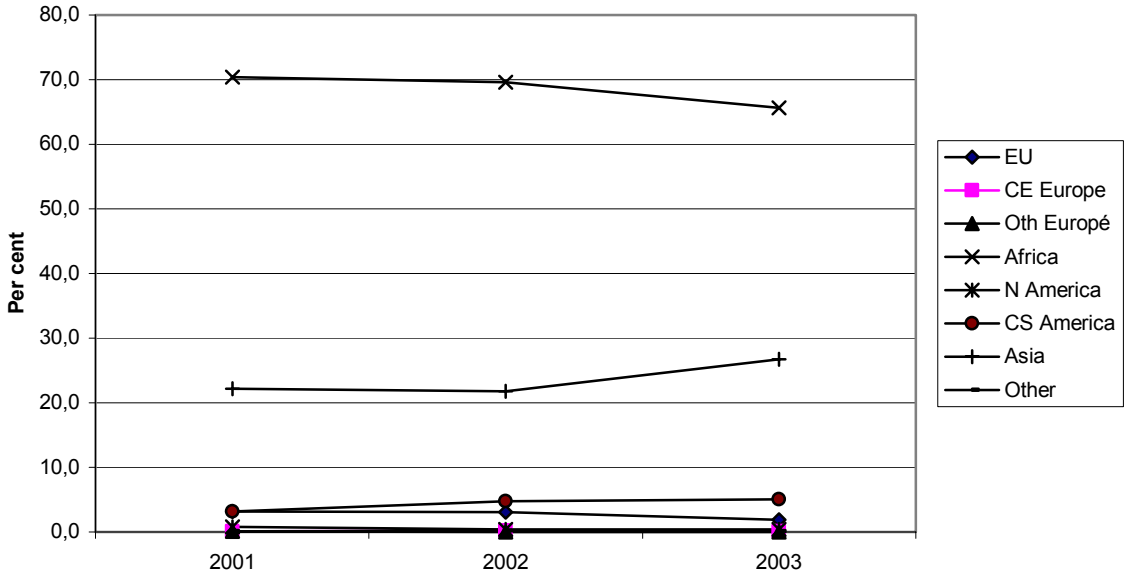

Figure 19. Imports of tropical sawnwood by region. (Value distribution). Source: ISTAT.

To sum up, for sawnwood the EU is the most dominating export market for Italy with a tendency of increase. Besides increasing exports to the EU even Central and East Europe and Other Europe gain markets shares. Asia was previously an important destination but has declined. Considering the imports to Italy who is a considerable net importer, the EU is by far the largest supply region that even shows a tendency to increase its importance. Also Central and East Europe is a remarkable sourcing region. Approximately 75 % of the exports in value terms (65 % in volume terms) constitutes of non-coniferous. In contrast, 60 per cent of the imports in value, and 78 % in volume are of coniferous species. The importance of coniferous imports tends to increase and the opposite development is taking place for broad-leaved species. Regarding the import of tropical sawnwood the import shares are relatively stable at the level of 10 % and 5 % expressed in value and volume terms, respectively.

3.2.3 Veneer

The Italian domestic consumption of veneer sheets is stable during the period 1997-2003, on average 0.63 million m^3 per year. About 71 % of apparent consumption consists of domestic production (Figure 20); i.e. on the average 0.47 million m^3 per annum. A very weak decline may be recognized for the domestic output over the period. The exports are limited and around 25 000 m^3 annually. The imports amount to 0.18 million m^3 per year and may display a weak increasing trend. The overall development highlighted here gives an impression of stability in the veneer business.

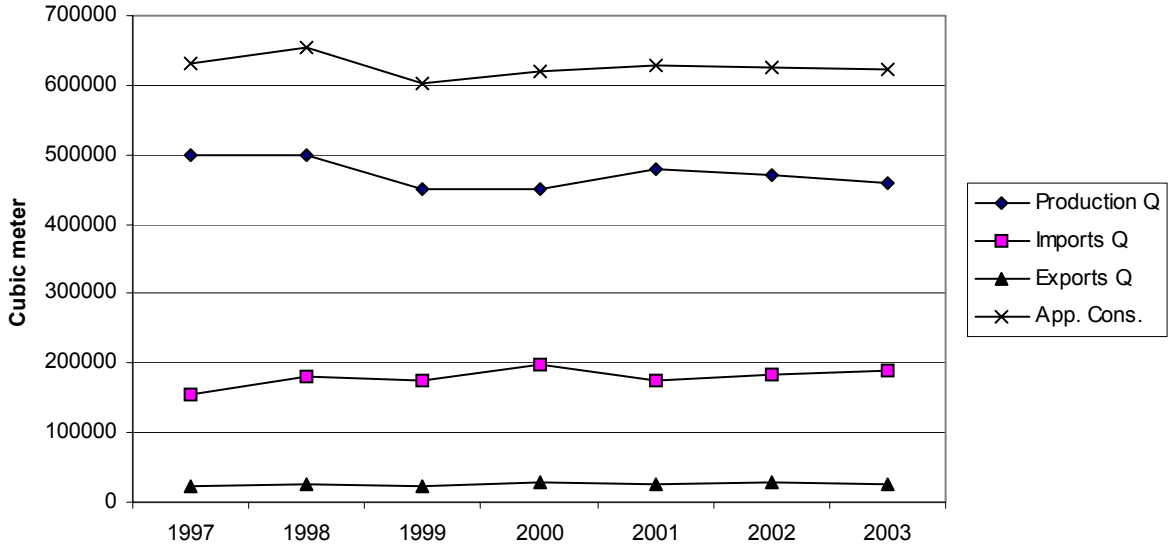

Figure 20. Production, imports, exports and apparent consumption of coniferous and non-coniferous veneer 1997-2003. Source: FAO.

Focusing only on the trade of non-tropical veneer in value terms net imports seem to remain at constant level of 100 million Euros as a result of a weakly increasing imports and exports over the period from 1999 to 2003 (Figure 21).

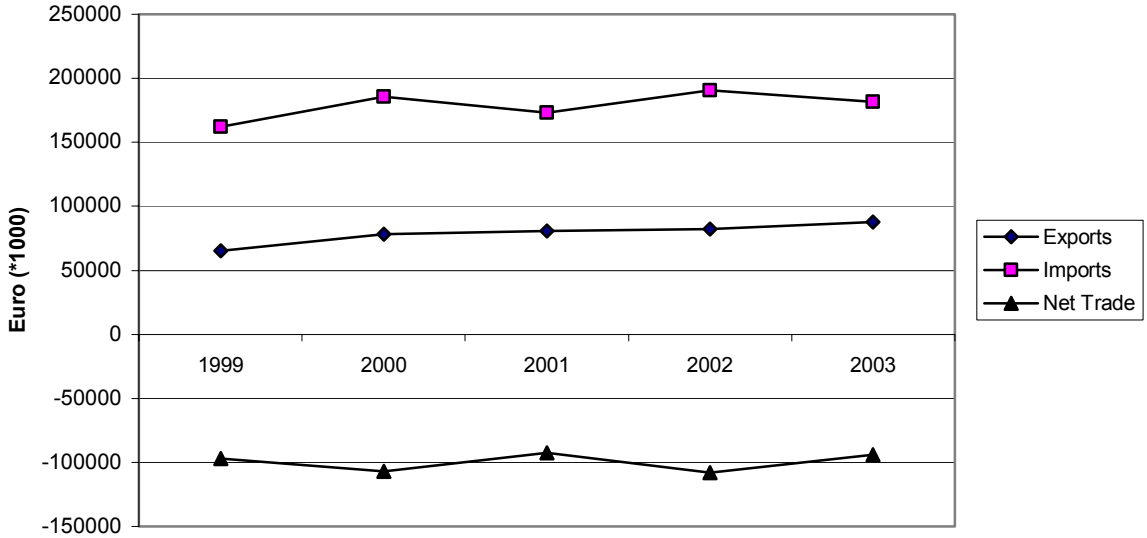

Figure 21. Trade in non-tropical veneer 1999-2003. Expressed in Euro (*1000). Source: ISTAT.

The exports of non-tropical veneer are mainly directed to the EU-internal market (Figure 22). About 60 % is delivered to this market area where especially Germany is an important trading partner. Asia accounts for about 17 % of the Italian exports over the period. Recently there has been a change between North America, and Central and East Europe as the third and fourth largest buyers of Italian veneers. The former market area has lost market shares in favour of the latter one. The other regions account only for marginal export shares.

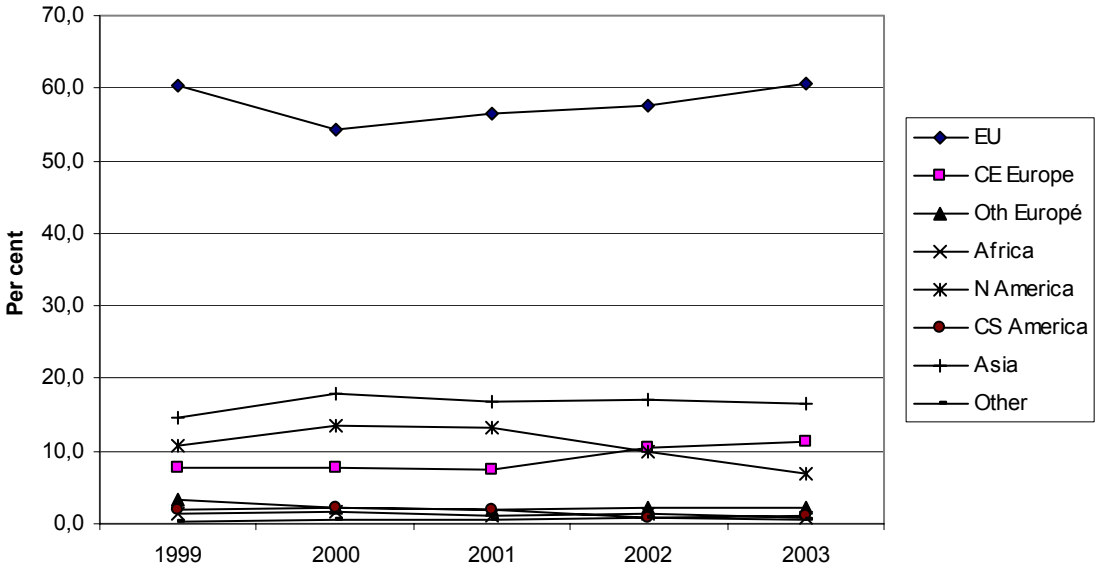

Figure 22. Exports of non-tropical veneer by region 1999-2003 (Value distribution). Source: ISTAT.

As to the imports of non-tropical veneer to Italy the EU is the major sourcing area accounting for 40 % of all non-tropical veneer imports in 2003 after a slight decline during the last three years. A similar decreasing trend is also recorded for the imports from 'Other Europe' but at a considerably lower level of around 6 % to 7 % at the end of the period (Figure 23).

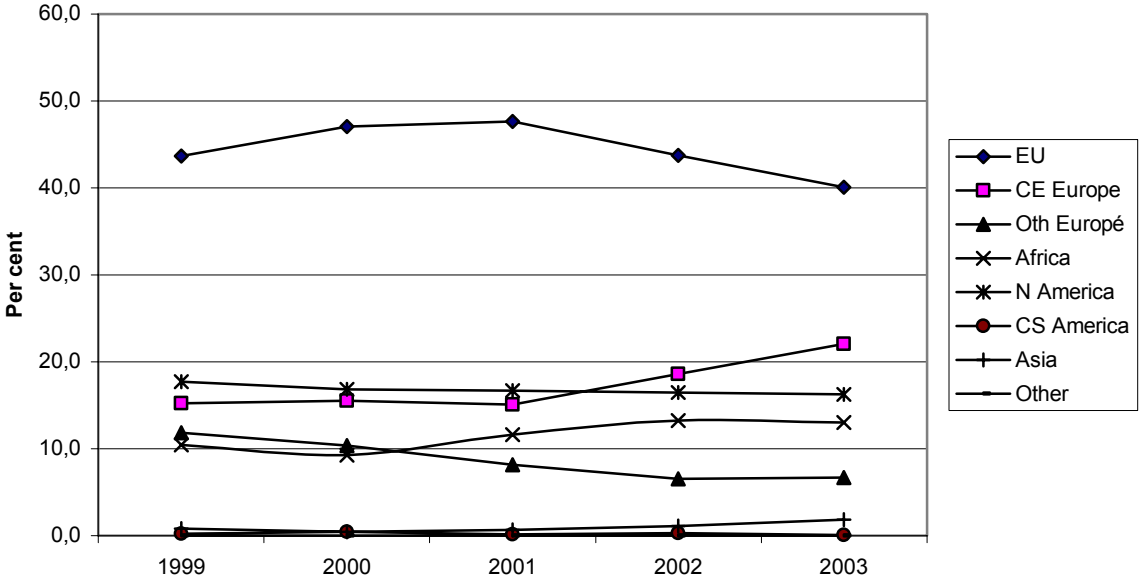

Figure 23. Imports of non-tropical veneer by region 1999-2003 (Value distribution). Source: ISTAT.

On the other hand, Central and East Europe has gained market shares and has replaced North America as the second largest sourcing area for the Italian imports with its 22 % market share in 2003. North America accounts for a stable but very weakly declining market share at the level of 17 % over the observation period. Not surprisingly, the imports of non-tropical veneer from Africa keep track of their earlier market share of 10 per cent and display even an increasing tendency during the latest years of the study period. Imports from other regions are marginal.

The trade in tropical veneer, in comparison with non-tropical veneer, generally shows a similar pattern even if the volume expressed in value terms is much less (Figure 24). In contrast to the non-tropical veneer there is a tendency towards increasing negative net trade (net imports) over the period due to faster growing imports than decline in exports.

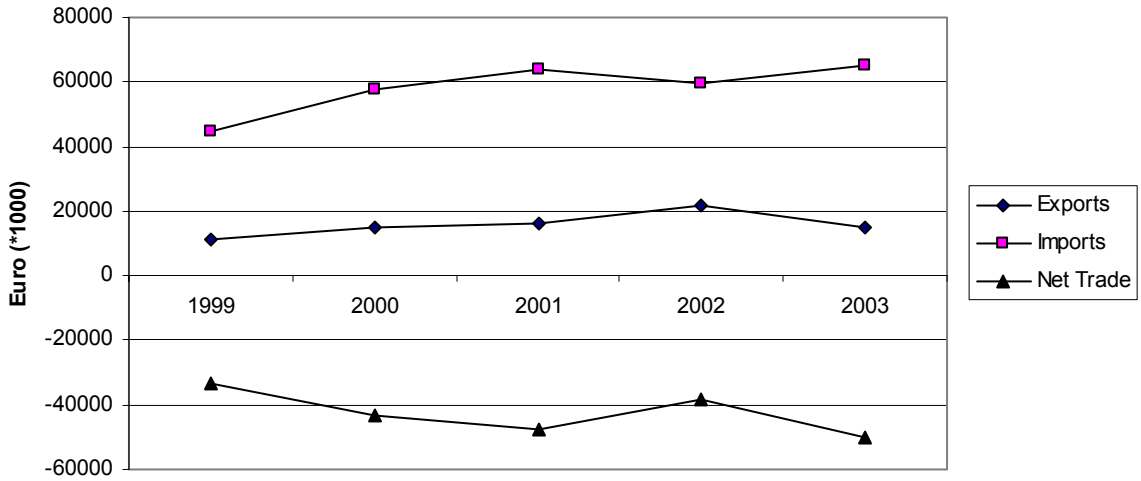

Figure 24. Trade in tropical veneer 1999-2003. Expressed in Euro (*1000). Source: ISTAT.

The most important trading partner in exports of tropical veneer is the EU-area accounting for about 40 % over the period, and in 2003 almost receiving 50 % of the Italian exports of tropical veneer (Figure 25).

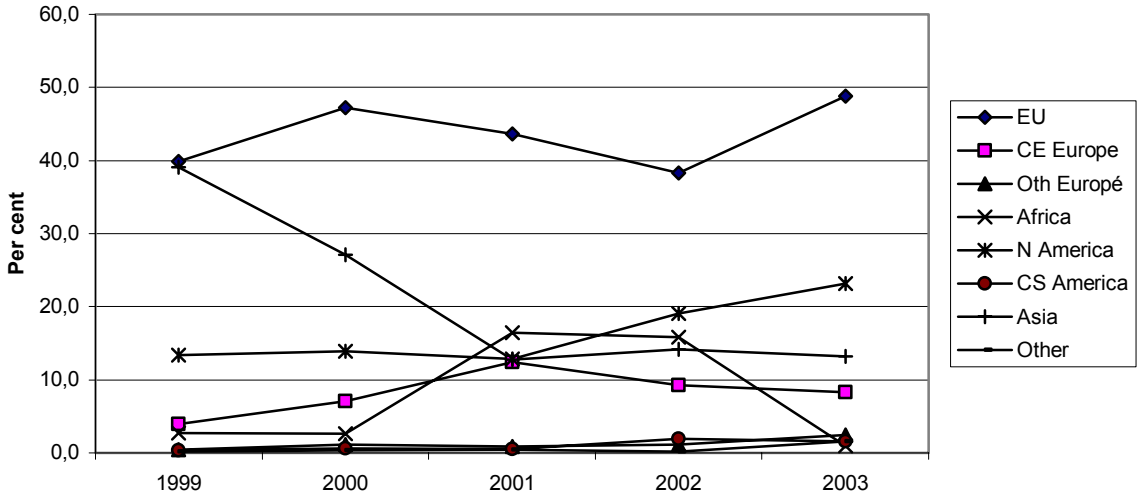

Figure 25. Exports of tropical veneer by region 1999-2003 (Value distribution). Source: ISTAT.

Asia, previously an important destination has declined from a high level of 40 % in 1999 to some 13 % in 2003. Instead, North America seems to have taken over market shares from Asia accounting for approximately 25 % of the Italian exports at the end of the period. Another region displaying increasing trend is Central and East Europe with its 8 % of the exports in 2003. Africa has lost its higher shares that it seems to have got occasionally in the mid-period. For all the other regions a slight increase can be recorded from a very low level towards the end of the period.

The imports of tropical veneer are completely dominated by Africa region with a weakly decreasing market share at the generic level of approximately 75 % over the period (Figure 26). Ivory Coast, Cameroon and Ghana are the dominating suppliers from Africa whereas all the other African suppliers are of limited importance. The EU displays an increasing trend that, however, was broken in 2003. In total, more than 90 % of all imports of tropical veneer originated from these two regions at the end of the period. For all the other supply regions the recorded market shares are below 5 % each.

In conclusion, it is obvious that the EU is the most important trading partner regarding the exports. Other substantial destinations for the Italian exports of veneer are Central and East Europe showing an increasing trend, as well as North America and Asia. With respect to imports the EU remains the largest sourcing area even if supply from Central and East Europe tends to expand. Africa is by far the most prominent supplier of tropical veneer to Italy.

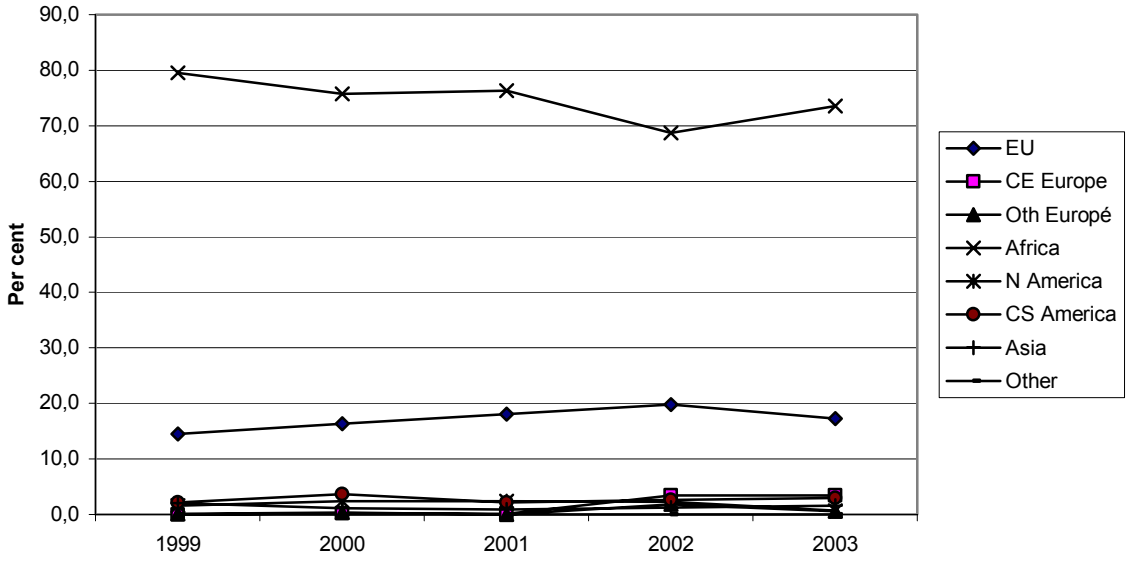

Figure 26. Imports of tropical veneer by region 1999-2003 (Value distribution). Source: ISTAT.

3.2.4 Plywood

The consumption of plywood in Italy has increased substantially from 0.6 million m^3 to 0.8 million m^3 from 1997 to 2003 (Figure 27); i.e. with 33 per cent. Even if the domestic production seems to show a weak increasing trend the imports satisfy an increasing share of apparent consumption in Italy. In 2003 about 69 % of the domestic demand was covered by the imported quantities. The imports have experienced a remarkable increase with 76 % during the period.

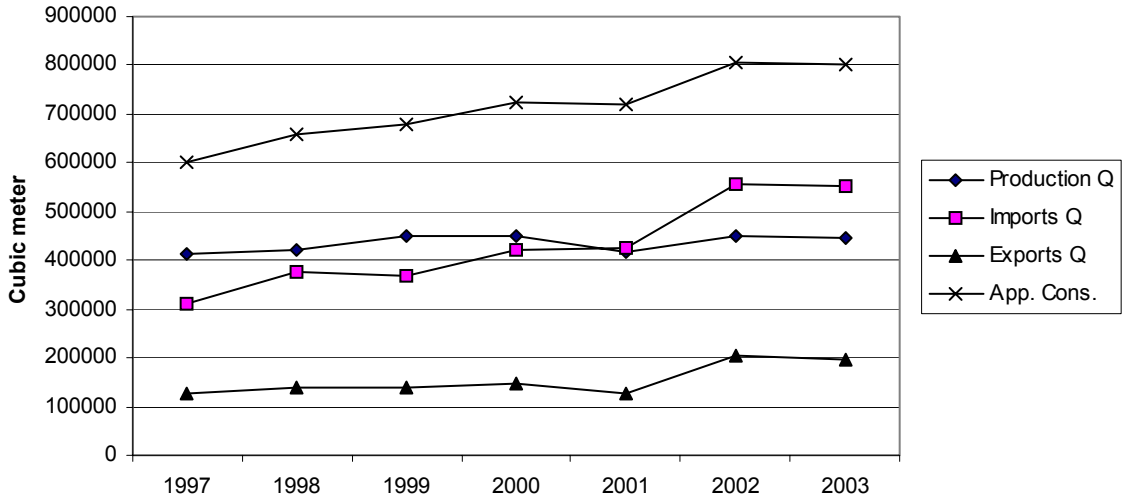

Figure 27. Production, imports, exports and apparent consumption of coniferous and non-coniferous plywood 1997-2003. Source: FAO.

Considering the trade in non-tropical plywood the imports show a slight increase over the period whereas the exports have remained at constant level (Figure 28). Consequently, net imports tend to increase.

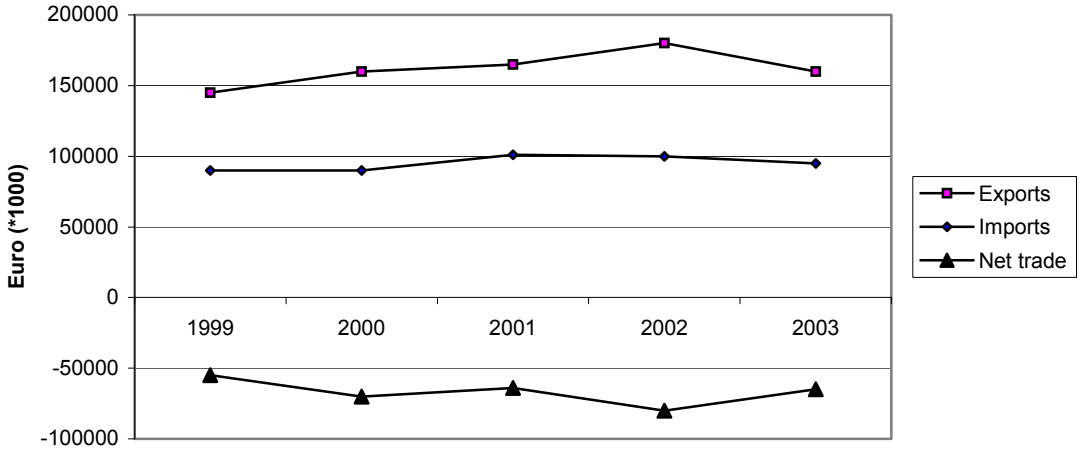

Figure 28. Trade in non-tropical plywood 1999-2003. Expressed in Euro (*1000). Source: ISTAT.

Approximately almost 80 % of the non-tropical plywood exports are directed to the internal EU-markets (Figure 29). The remaining shares are then mainly distributed to the region 'Other Europe' and Central and East Europe accounting for 6 % and 10 %, respectively, in 2003. The latter area has gained steadily new market shares whereas the opposite has taken place for the former area. Other regions are of limited importance.

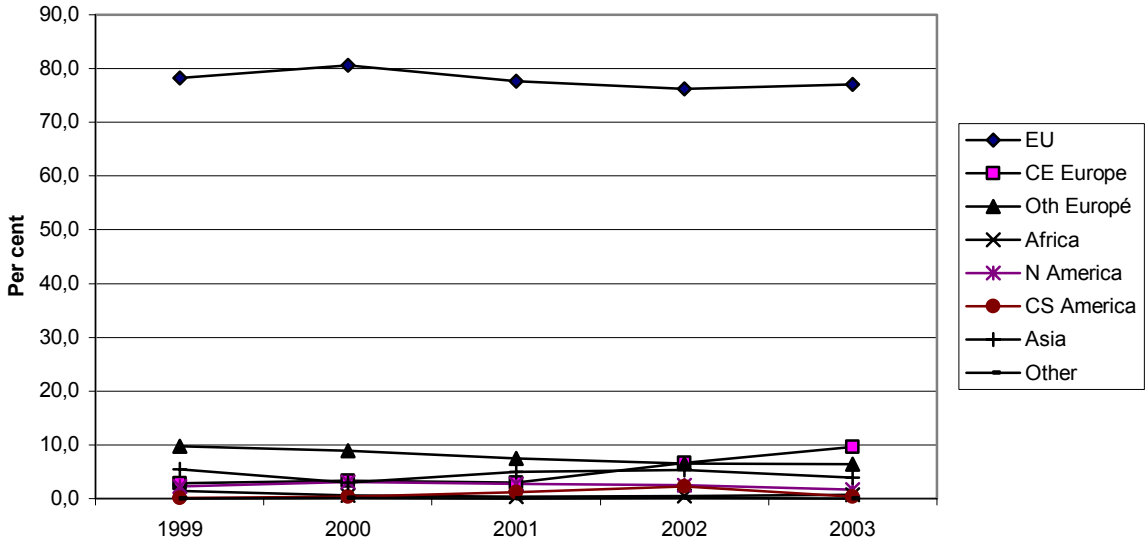

Figure 29. Exports of non-tropical plywood by region 1999-2003 (Value distribution). Source: ISTAT.

The imports of non-tropical plywood are dominated by the EU and Central and East Europe with almost equal market shares of over 40 % each (Figure 30). The CE Europe has experienced a substantial increase of more than 10 % during the period while a level shift downward is recorded for the EU. Also, Central and South America is important, accounting for almost 10 % of the Italian market. Since 2000 the level of imports from CS America has remained at this level. For all the other regions a stagnation and/or decline is recorded.

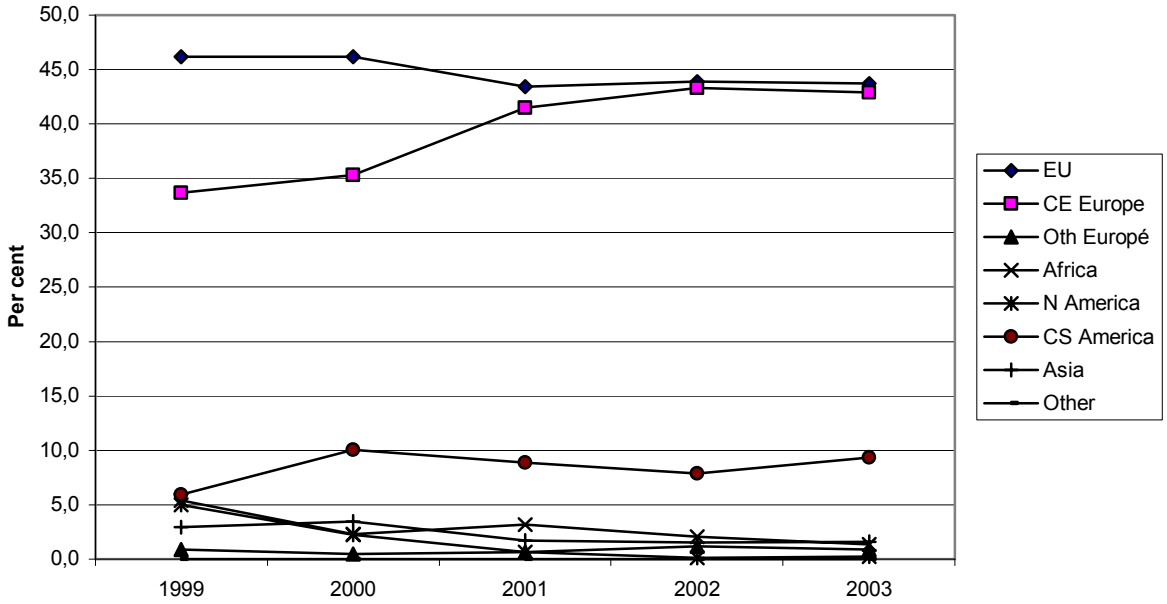

Figure 30. Imports of non-tropical plywood by region 1999-2003 (Value distribution). Source: ISTAT.

As to the trade in tropical plywood the picture is much the same as for the non-tropical plywood; i.e. a constant level of exports over the period, while the imports tend to increase

but in the case of tropical plywood the imports have expanded more strongly. Consequently, net imports are increasing (Figure 31).

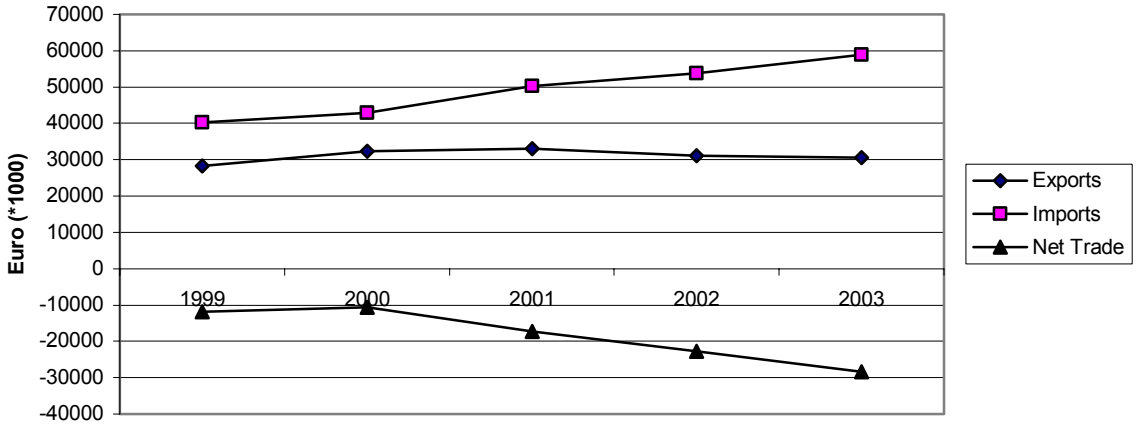

Figure 31. Trade in tropical plywood 1999-2003. Expressed in Euro (*1000). Source: ISTAT.

Considering the exports of tropical plywood the internal EU market is the completely dominating trading partner with its market share of about 85 % during the period. Each of the remaining regions accounts less than 5 % of the Italian exports of tropical plywood (Figure 32).

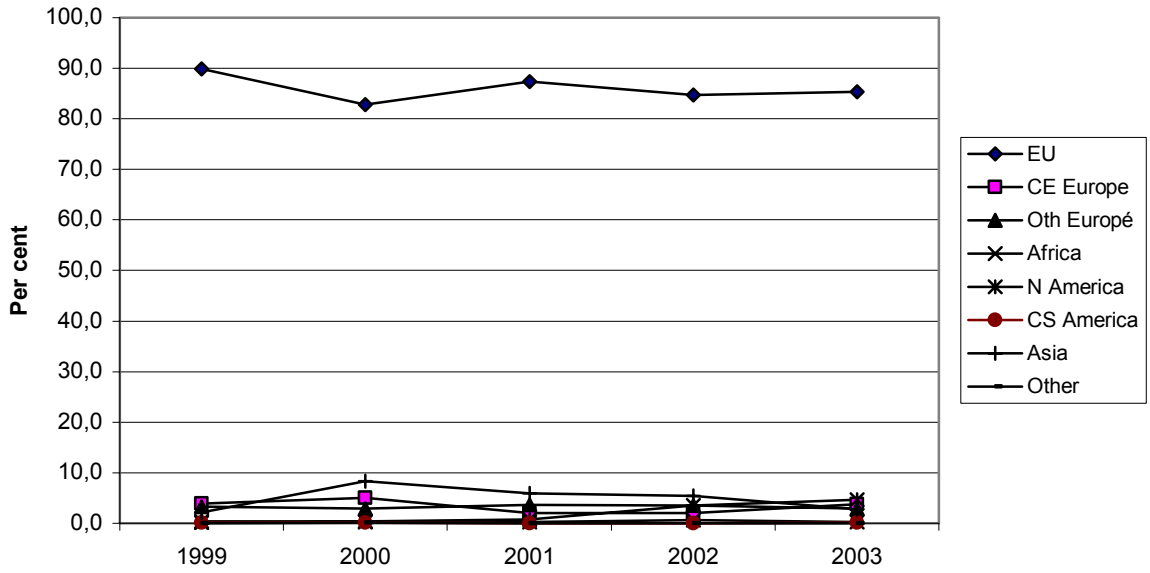

Figure 32. Exports of tropical plywood by region 1999-2003 (Value distribution). Source: ISTAT.

Regarding the imports of tropical plywood the sourcing obviously is occurring from several regions (Figure 33). The EU is loosing market shares remarkably but still hold 40 % of the market shares in 2003. Imports from Africa have increased considerably and in 2003 the deliveries to Italy accounted for about 30 % of the Italian imports. This can be a good indication of steps towards higher value-added tropical wood products' exports. Other important supply areas are Asia that, however, has declined from 24 % to 16 % since 1999. On the contrary, Central and South America and Central and East Europe have increased their

shares up to 10 % and 5 %, respectively, towards the end of the period. A slight increase is recorded also for the Other Europe but from a low level.

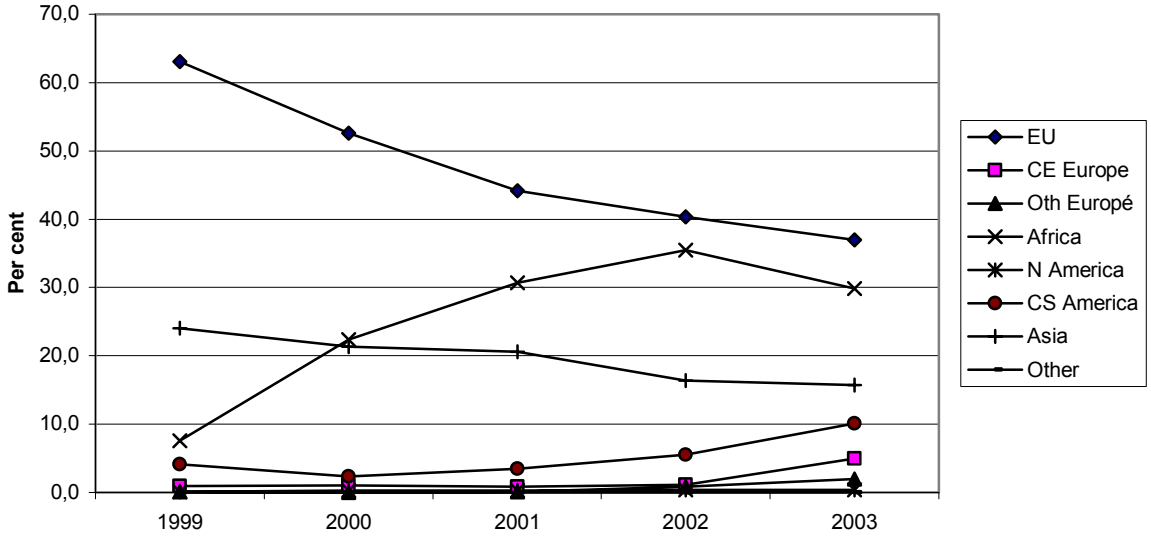

Figure 33. Imports of tropical plywood by region 1999-2003 (Value distribution). Source: ISTAT.

Summing up, for the EU decreasing market shares are recorded regarding both exports and imports of plywood. The opposite is the case for Central and East Europe, Africa and Central and South America. About 75 % of the plywood trade constitutes trade in non-tropical plywood.

3.2.5 Builders' joinery

This section views the development of trade in builders' joinery from 1999 to 2003 starting with an overall review. Thereafter, a more detailed picture is given by highlighting the sub-sectors of windows, doors, and other joinery in which gluelam is also included. The quantities recorded are given in metric ton and Euro. The definitions and customs codes for builders' joinery and sub-groups windows, doors and other builders joinery are presented in Appendix 7. Regarding the use of tropical wood such data exist for windows and doors but not for other builders' joinery.

Italy is net importer regarding builders' joinery as an aggregate product group (Figure 34) expressed in volume terms. The trade deficit, net imports, seems to accelerate mainly due to more substantial increase in imports compared with the export development during the period. On the other hand, considered in value terms (Figure 35) the trade deficit shows more moderate development until 2001 when the export and import values develop parallel to each other. Since 2001 the export development has, however, not been able to balance imports and consequently net exports has increased substantially. Another contributing factor is that within the period of five years the ratio unit export value vis-à-vis unit import value has change 15 % in favour of the exports. Obviously, a structural change has taken place and it is most of all associated with the lowering of the price level of the imports especially at the end of the period. To simplify the picture it can be argued that, generally, the exports increasingly consist of higher value-added contents than imports.

When considering various sub-sectors, and in particular the windows and doors, they are characterized by the fact that the raw material is procured from many different, even tropical sources.

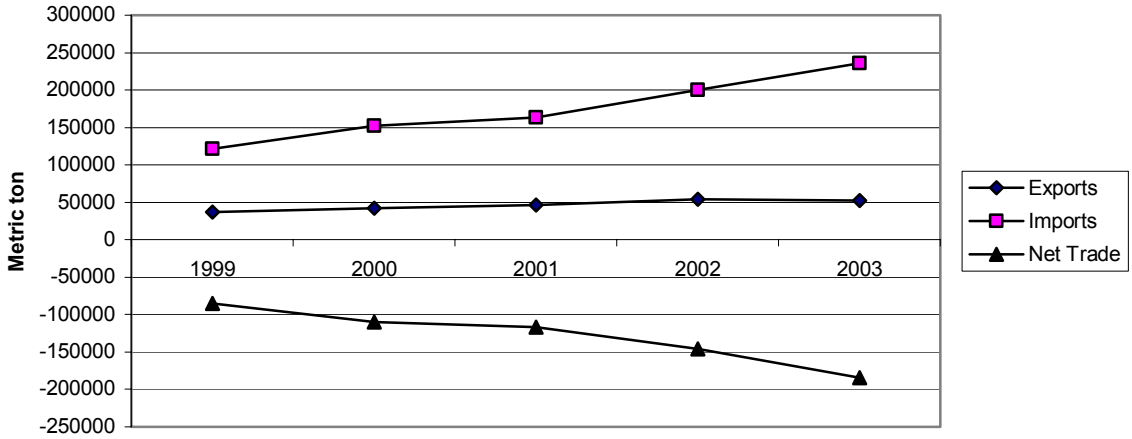

Figure 34. Trade in builders' joinery 1999-2003. Expressed in metric ton. Source: ISTAT.

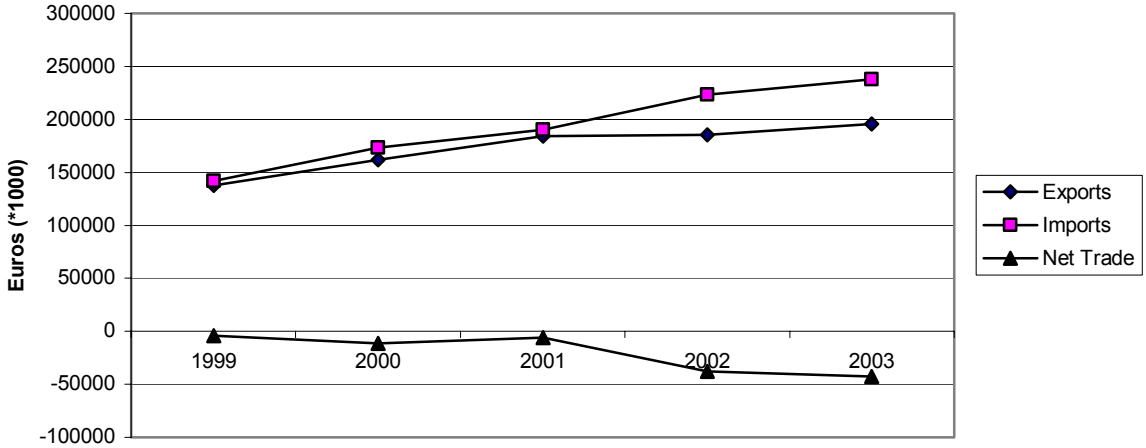

Figure 35. Trade in builders' joinery 1999-2003. Expressed in Euro (*1000). Source: ISTAT.

The Italian exports of builders' joinery are strongly dominated by the EU-internal markets that account approximately for 45 % of the exported volume (Figure 36), and recently below 40 % of the exported value (Figure 37). In general, the shares of the EU seem to decrease slightly over the period. Within the EU Germany, France, Spain and to some degree Austria are the trading partners of Italy in builders' joinery products.

The second largest buyer region is Central and Eastern Europe where about 20 % of the volume and almost 30 % of the value was delivered in 2003 after a substantial increase of 10 per cent, respectively. The Russian Federation accounts for a considerable share of Italian exports to CE Europe. The regions 'Other Europe' and 'Asia' obtain roughly 10 % to 15 %, respectively, of the Italian exports. Only small changes without long-term effects can be recognized for these two regions. However, Switzerland as an established trading partner with Italy is decreasing its shares whereas Asia, in particular Japan, as a destination of Italian exports is obtaining larger market shares.

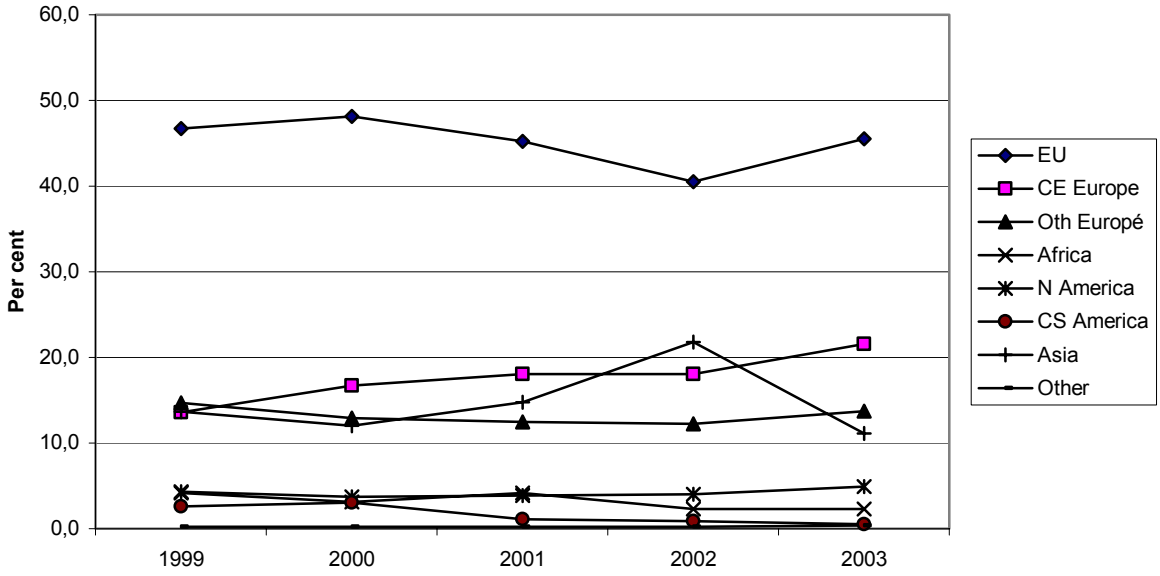

Figure 36. Exports of builders' joinery by region 1999-2003 (Volume distribution). Source: ISTAT.

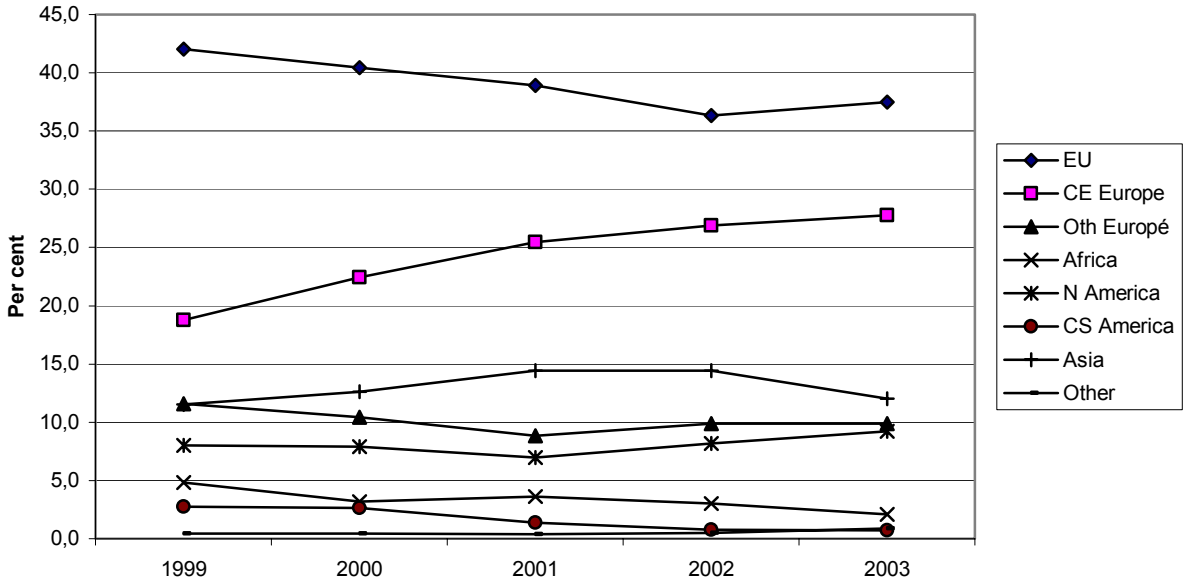

Figure 37. Exports of builders' joinery by region 1999-2003 (Value distribution). Source: ISTAT.

At a somewhat lower level North America maintains its volume and value shares; 5 % and 8 % respectively, over the period. In contrast, the market shares of Central and South America and Africa are declining over the period from already low levels in 1999.

The imports of builders' joinery are mainly obtained from the EU. Over 70 % of the imports in volume terms originate from this region (Figure 38). The value share in turn is somewhat below 70 % (Figure 39). In both cases a slight slowdown is recorded for the last two years of the period. Germany and Austria are the main trading partners.

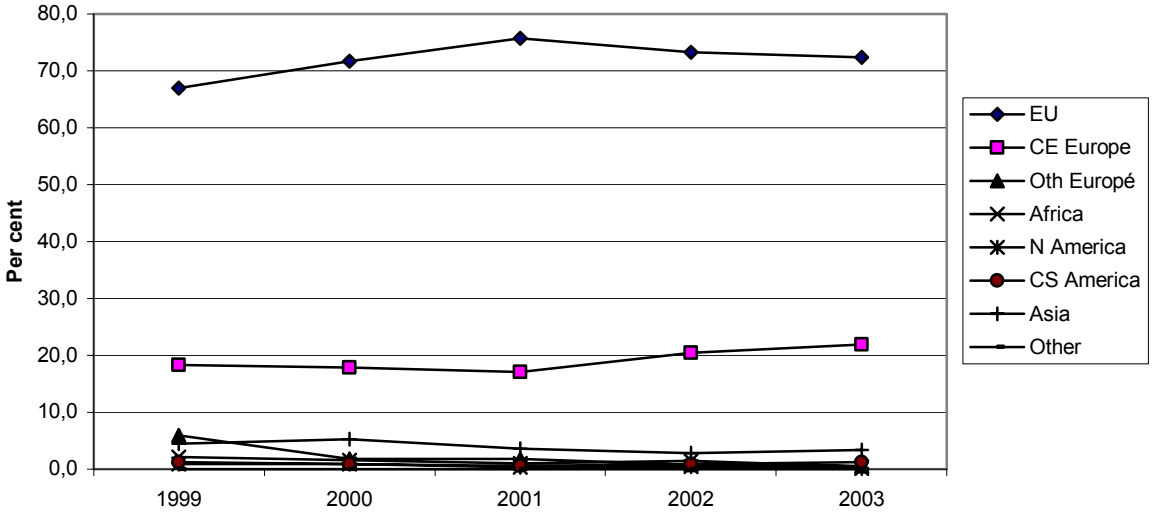

Figure 38. Imports of builders' joinery by region 1999-2003 (Volume distribution). Source: ISTAT.

Central and East Europe are increasing their market shares as suppliers to the Italian market of builders' joinery. The average level is approximately 20 %. Within this region Romania and Slovenia are the most important suppliers whereas imports from the Russian Federation are low. For all the other supply regions relatively low shares are indicated, generally below 5 %. Especially Other Europe, in which Switzerland has been a large supplier, is loosing market shares. On the other hand, Asia, North America, Central and South America, Africa and Others maintain their shares although at low levels.

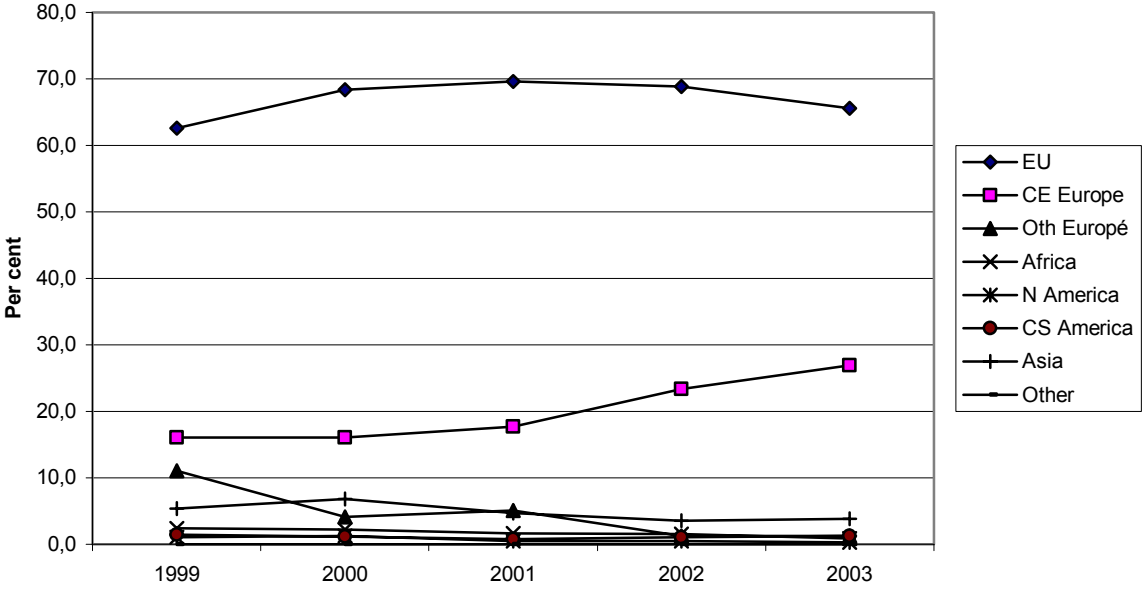

Figure 39. Imports of builders' joinery by region 1999-2003 (Value distribution). Source: ISTAT.

Regarding exports from sub-sectors of builders' joinery the largest share is associated with 'other builders' joinery'. This sub-sector accounts for over 60 % in volume terms of the

exports in 2003 (Figure 40). The tendency is, however, decrease. On the other hand, 'doors' show an increasing trend ending with the level of 30 % in 2003; i.e. this sup-group has gained the market shares from the previous sub-group.

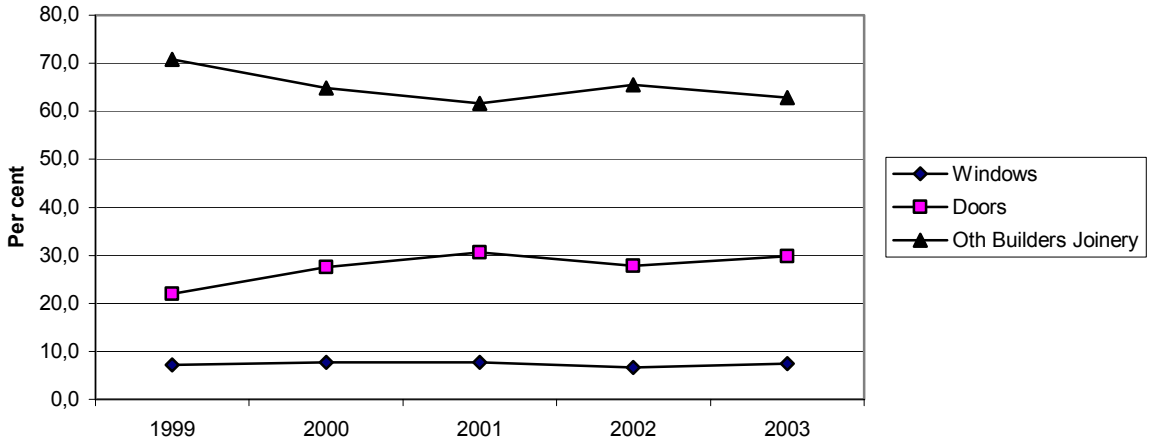

Figure 40. Exports of builders' joinery by product group 1999-2003 (Volume distribution). Source: ISTAT.

For 'windows' a stable development at the level of 7 % is recorded from 1999 to 2003.

Considering the distribution of **value shares** of the exports the situation differs substantially (Figure 41). As in the case of volume shares the 'windows' show the lowest but constant market share at the level of 11 to 12 %. On the other hand, the 'doors' receive a considerably higher value share, 40 % to 50 % over the period.

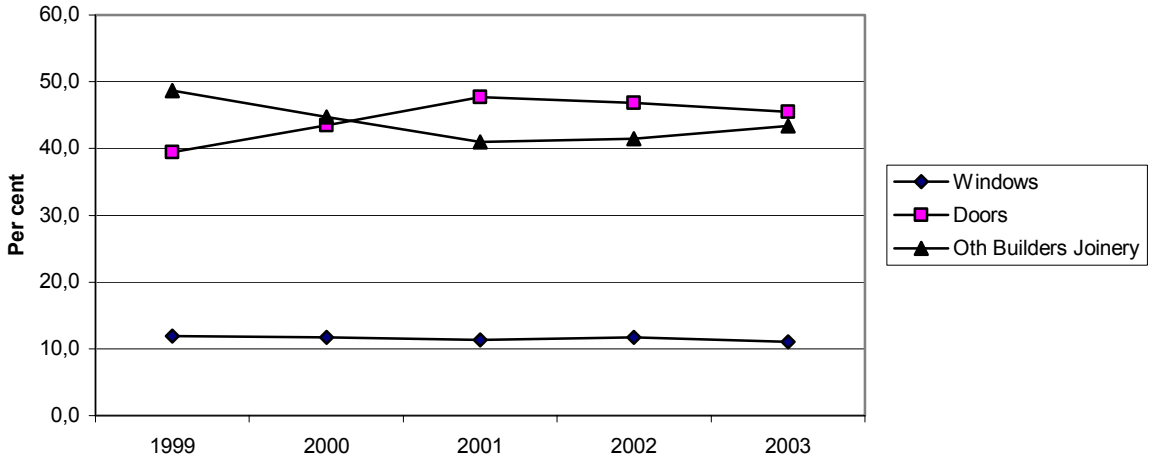

Figure 41. Exports of builders' joinery by product group 1999-2003 (Value distribution). Source: ISTAT.

The imports of builders' joinery by subsector is again strongly dominated by the 'other builders' joinery' with around 90 % in volume terms and 75 % in value term of the market shares, respectively (Figures 42 and 43). Furthermore, this sub-sector tends to increase its shares weakly over the period. The subsectors 'windows' and 'doors' obtain accordingly low and slightly decreasing shares over the period.

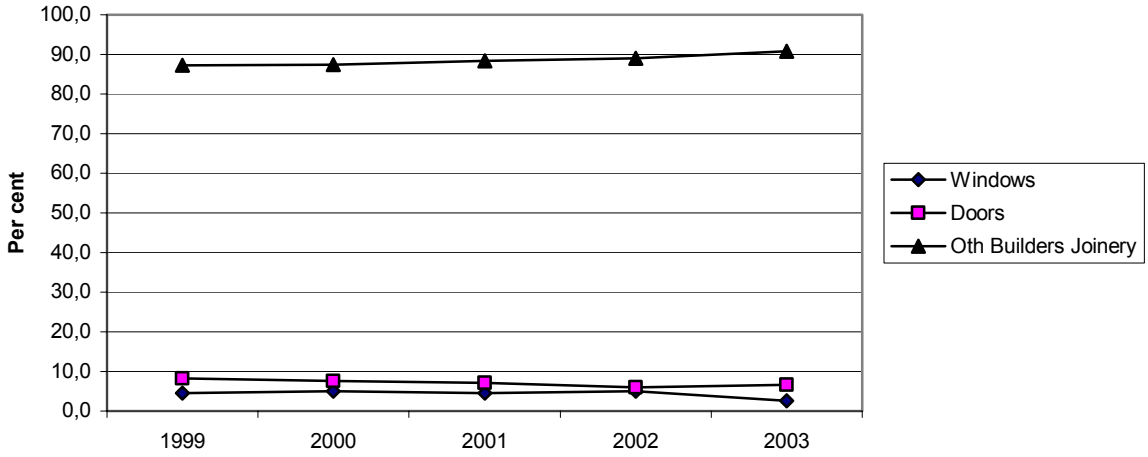

Figure 42. Imports of builders' joinery by product group 1999-2003 (Volume distribution). Source: ISTAT.

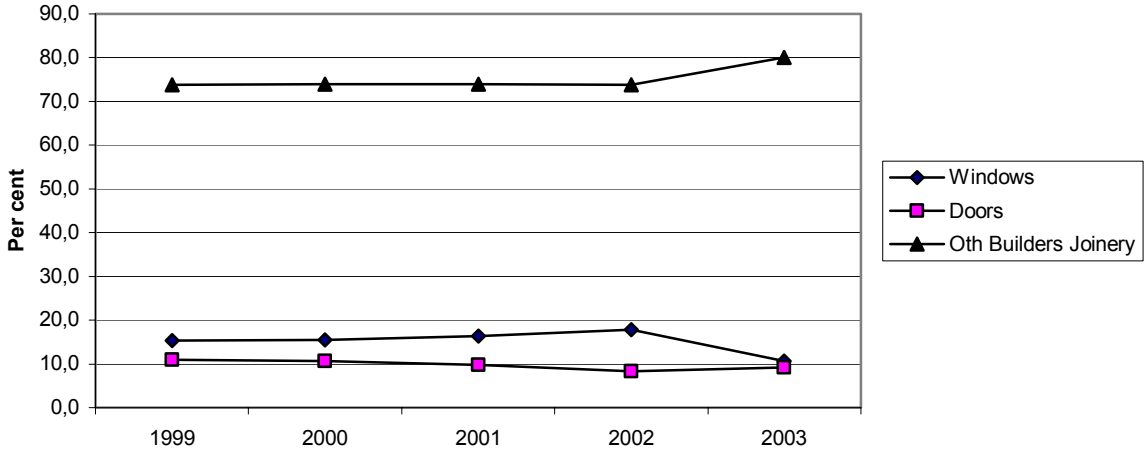

Figure 43. Imports of builders' joinery by product group 1999-2003 (Value distribution). Source: ISTAT.

The exports of the sub-sector **windows** constituted about 7 % of the total builders' joinery exports in 2003 which share has remained rather constant during the period. The import share has been lower at the level of 5 %, except in 2003 when it remained around 3 %. To sum up, the trade of windows expressed in volume terms play a minor role in the Italian foreign trade. The trade balance of windows is negative but there is a tendency towards a recovery according to the figure 44 for 2003.

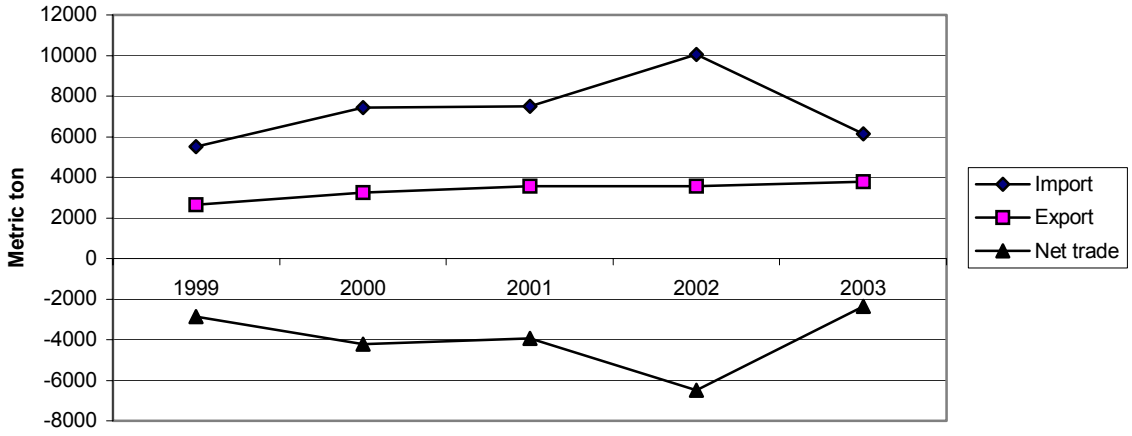

Figure 44. Trade in windows 1999-2003. Expressed in metric ton. Source: ISTAT.

The window exports, in general, show a steadily increasing trend over the period. Within the internal EU-market Germany as an export destination is gaining market shares with an increase from 12.5 % in 1999 to 29 % in 2003. Overseas markets for Italian windows with a positive development are the United States that grows from 9 % to 13 % and Israel with an increase from 5 % to 12 % over the period. The others, including tropical destinations, are of minor importance. On the other hand, the exports considered from the point of view of which raw material is used in construction of windows consist of 25 % of tropical and coniferous wood, respectively, for each sector (Figure 45). These raw materials are gradually gaining market shares from other wood materials used for windows.

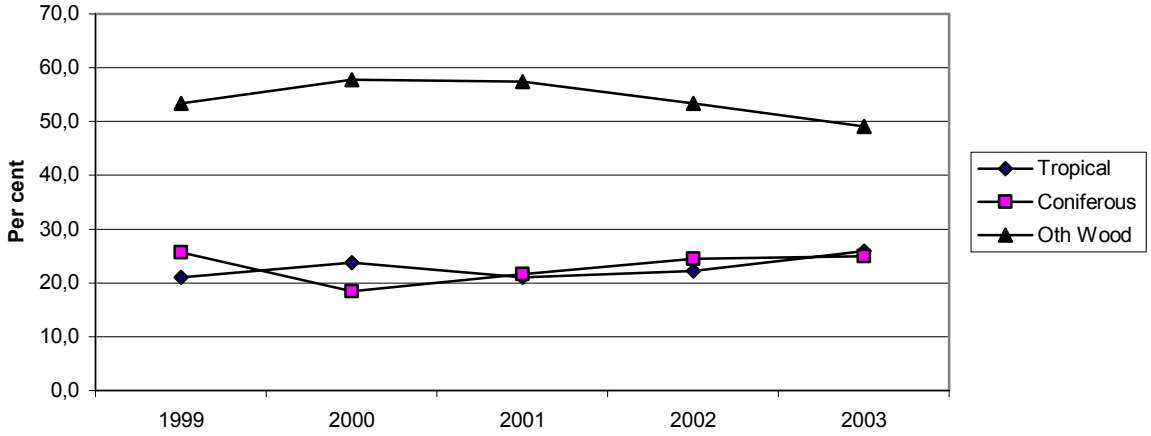

Figure 45. Exports of windows by type of wood raw material 1999-2003 (Value distribution). Source: ISTAT.

Seen in the regional perspective and in particular with focus on windows of tropical wood a dramatic change of the export pattern can be recognized (Figure 46). First, the exports to the EU internal market have declined from 70 % in 1999 to 35 % within five years. In contrast, the exports to North America have doubled from the earlier level of 20 % to almost 40 % by 2003. The other regions show relatively stable development below 10 % shares each.

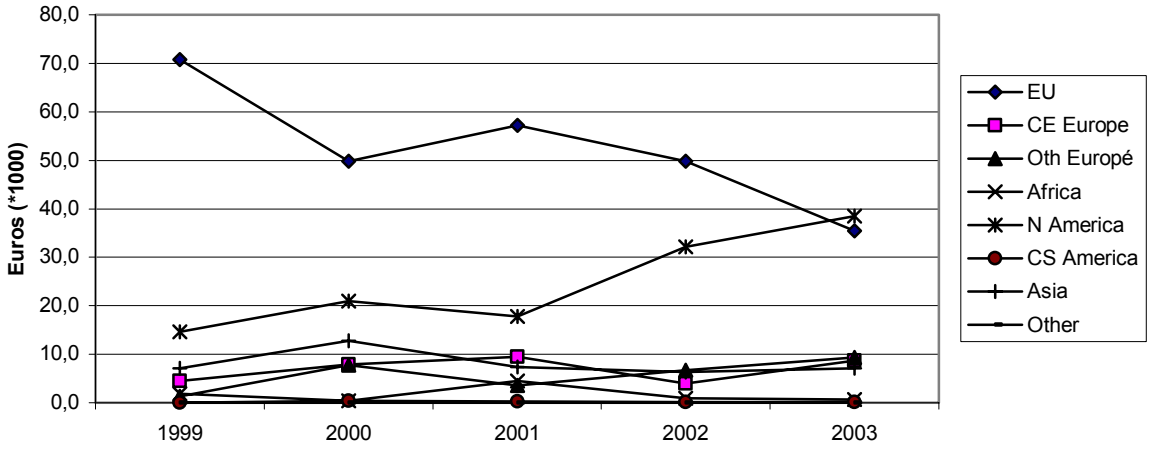

Figure 46. Exports of windows of tropical wood by region 1999-2003 (Value distribution). Source: ISTAT.

In line with the increasing trend for exports also window imports, in general, have experienced a similar and even stronger development except in 2003 when a drastic drop took place (Figure 44). Denmark is an important source but it is loosing market shares from 33 % in 1999 to 12 % in 2003. The same negative trend is recorded for Switzerland also from a similar high level compared to Denmark. In 2003 only a few per cent of the Italian window imports originated from Switzerland. Another earlier quite a large supplier of windows that has lost market shares is Congo; from 12 % to a few per cent at the end of the period. Among countries showing an increase are Germany and Austria with a doubling of their export shares to 6 % and 10 %, respectively. However, the clearly most remarkable increase of window exports to Italy is recorded for the countries in Eastern Europe; Hungary, Slovenia, Poland and Croatia. These countries accounted in 2003 for 58 % of all Italian imports of windows – compared with only a few per cent in 1999. The imports of windows from tropical sources are marginal. Only a few per cent of the import value of windows comprise windows of tropical wood. The major part, approximately 90 % of the value is associated with windows of coniferous species and the remaining part, about 10 % with other wood species (Figure 47).

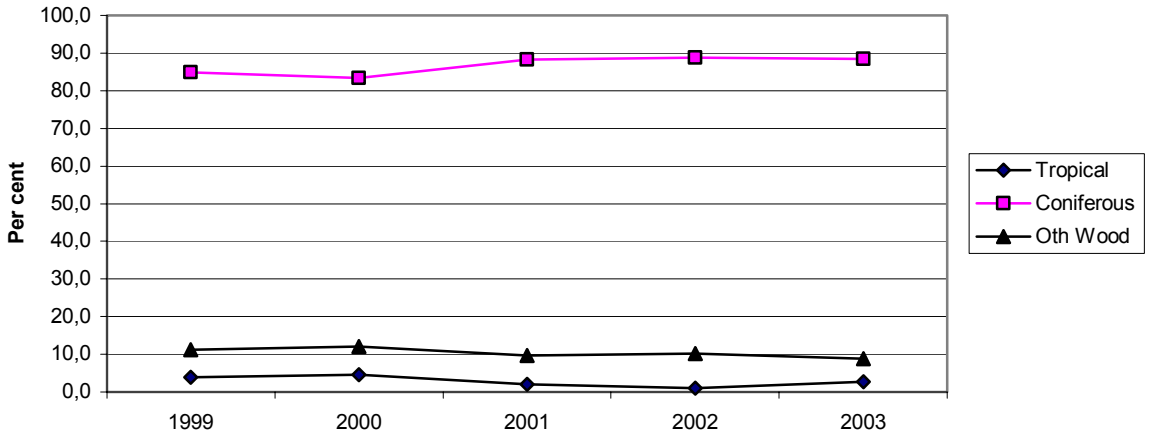

Figure 47. Imports of windows by type of wood raw material 1999-2003 (Value distribution). Source: ISTAT.

Considering window imports of only tropical wood from various regions (Figure 48) there has been as dramatic changes as in the case of exports. Foremost, the supply from Africa has totally collapsed from the earlier level of over 70 % in 1999 to null in 2003. It was replaced by supply from Central and East Europe that has faced a dramatic increase of its shares from null in 1991 to 86 % in 2003. Somewhere between these remarkable market shifts the EU-area has accounted for shares between 20 % and 40 % without a clear tendency. As a consequence of continuously increasing imports from the CE Europe the share of the EU dropped from 34 % in 2002 to 12 % in 2003.

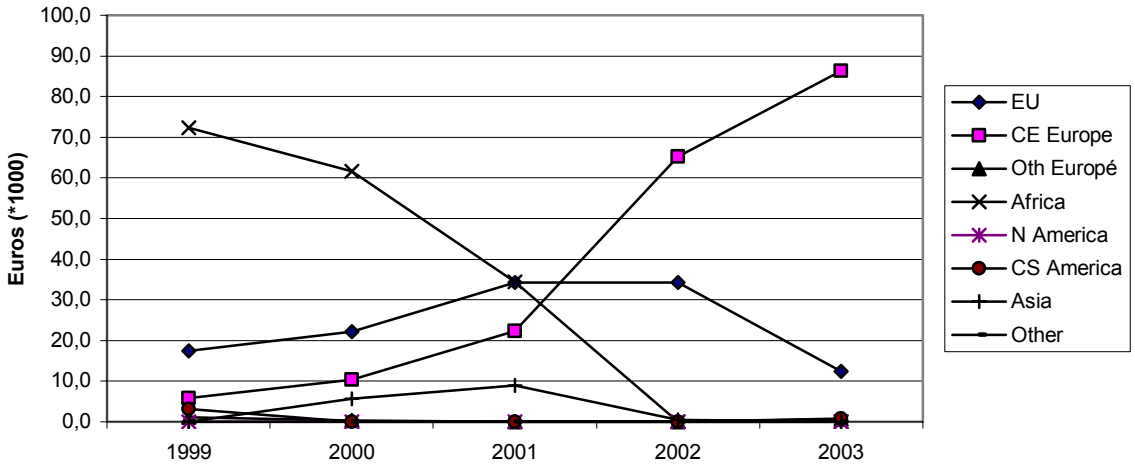

Figure 48. Imports of windows of tropical wood by region 1999-2003 (Value distribution). Source: ISTAT.

The export share in volume terms of the sub-sector **doors** has fluctuated between 21-31 % of the total exports in builders' joinery over the period. The tendency is increase. The corresponding value share has been within the range of 40 % to 50 % over the period. Thus the door exports account for a considerable share of the builders' joinery exports. The import share has been considerably lower, approximately 7 % of the total volume and 10 % of the total value of window exports. In conclusion, the trade balance of doors has become positive in volume terms, but the figures for 2003 indicate that the net trade will turn to a deficit (Figure 49).

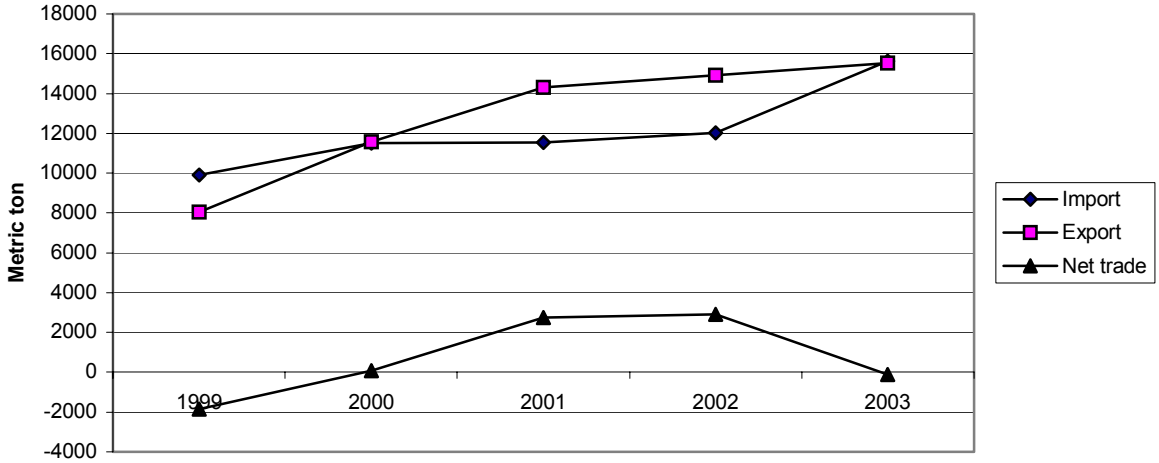

Figure 49. Trade in doors 1999-2003. Expressed in metric ton. Source: ISTAT.

In general, for exports of doors the increasing trend is approaching saturation. The annual increase is lower in 2002 and 2003 than in the beginning of the time period. Among trading partners the Russian Federation is receiving 31 % of the Italian door exports; an increase of 12 % during the period. In the Far East, Japan accounts for 7 % with a weak increase in its imports from Italy. It is noticeable that there are also other signs on demand for Italian doors in the Southeast Asia, for example, in Indonesia. However, the exports to tropical countries are, in general, only limited. Higher demand is also recognized in the Eastern Europe, Ukraine and Slovenia, and in the Middle East where Israel and Saudi Arabia are important trading partners. While the exports develop positively in these regions and countries the market in the EU tends to decline. Germany, Austria, Greece and France, as well as Switzerland outside of the EU, show decreasing market shares for the door imports from Italy. In 2003 these countries recorded 18 % after a decline with 17 % during the period.

The distribution of exports based on the type of raw material (Figure 50) shows that about 90 % of the exports consist of doors made of other wood materials than tropical or coniferous wood[30]; a pattern similar to the window exports from Italy. These species account approximately for 5 % each of the export value of doors.

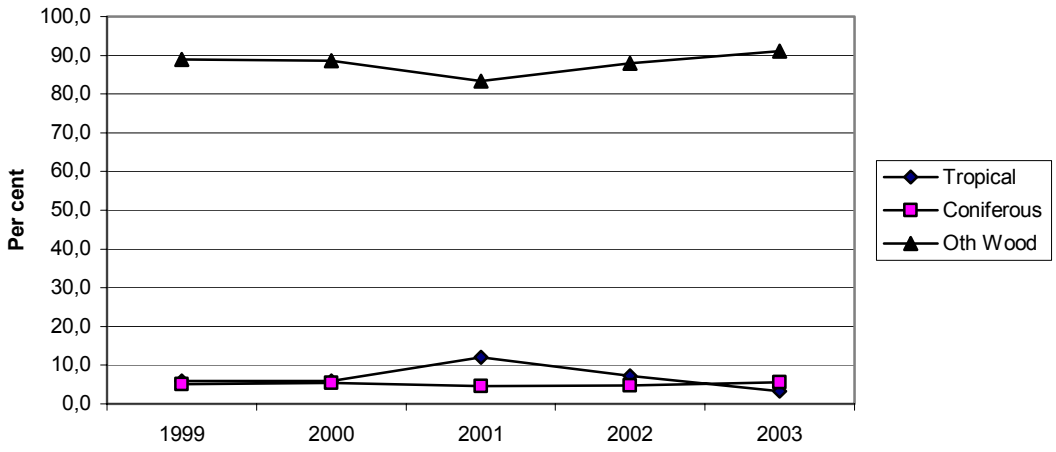

Figure 50. Exports of doors by type of wood raw material 1999-2003 (Value distribution). Source: ISTAT.

Considering the regional distribution of exports especially of windows made by tropical wood the development of export shares from various regions seem to be highly unstable (Figure 51). The two main shifts that have taken place during the period are first the decline of exports to the EU internal market from 47 % about to the level of 25 %. Second, Central and East Europe's increase from the level of 15 % to 50 % of the Italian exports of doors. All the other demand regions obtain below 10 % of the exports; Other Europe, Africa and Asia after shaky developments from higher levels. For North America a steady increase is recorded, however, from a very low level.

[30] Essentially non-coniferous, non-tropical.

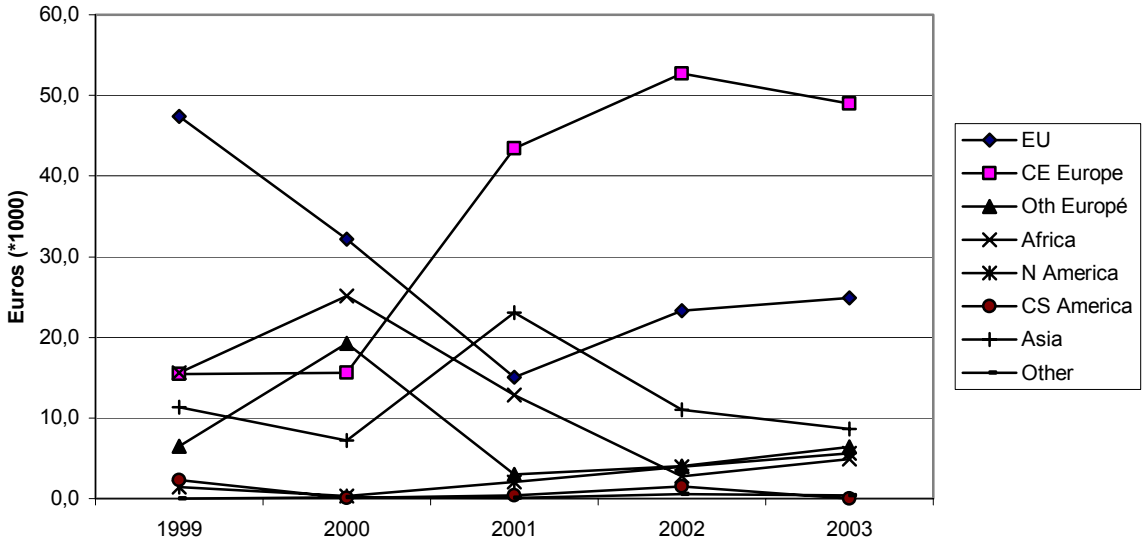

Figure 51. Exports of doors of tropical wood by region 1999-2003 (Value distribution). Source: ISTAT.

As to door imports the volume of 2003 implies a strong continuation of the upward trend (Figure 49). Romania is becoming an even more important source with an increase of 31 per cent to 71 %. On the other hand, the imports from Germany and Austria have decreased from 15 % and 6 % drastically down to only 3 % and 2 %, respectively. Some imports originate from the tropical countries. Brazil is experiencing a slight increase to 3 % whereas Indonesia has lost market shares from 9 % to 3 %. Imports from other tropical sources are limited and tend to decline.

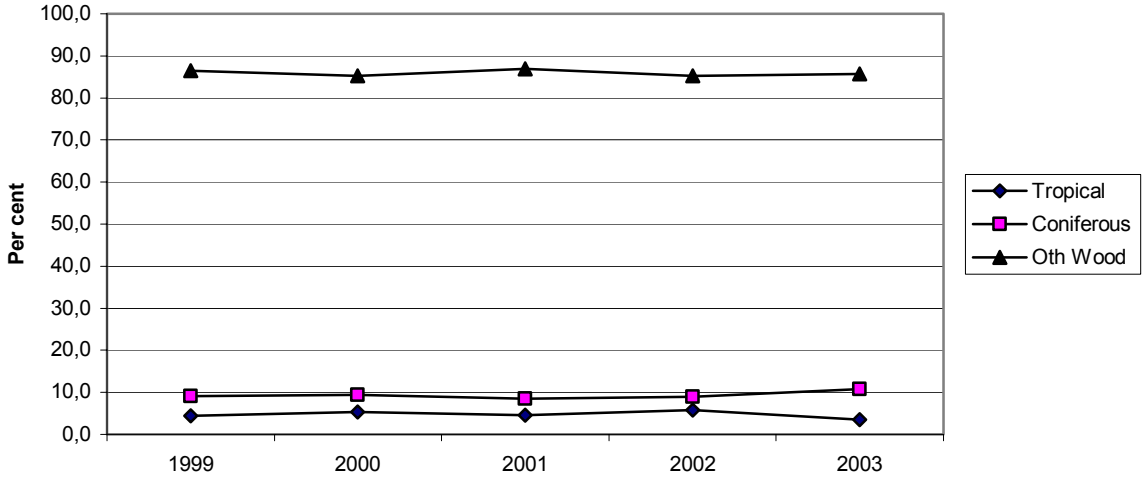

Figure 52. Imports of doors by type of wood raw material 1999-2003 (Value distribution). Source: ISTAT.

The pattern for imports of doors by type of raw material used in doors follows the previous pattern for windows. The major part, about 85 %, of the import value consist of the doors made of other wood material than of tropical or coniferous species that obtain the shares 5 % and 10 %, respectively (Figure 52). These shares tend to be stable over the period.

From the perspective of the exports origin targeting only on doors of tropical wood the main supply regions to Italy in 2003 are Asia at the level of over 50 %, the EU at about 25 %, and Central and South America with 15 % (Figure 53).

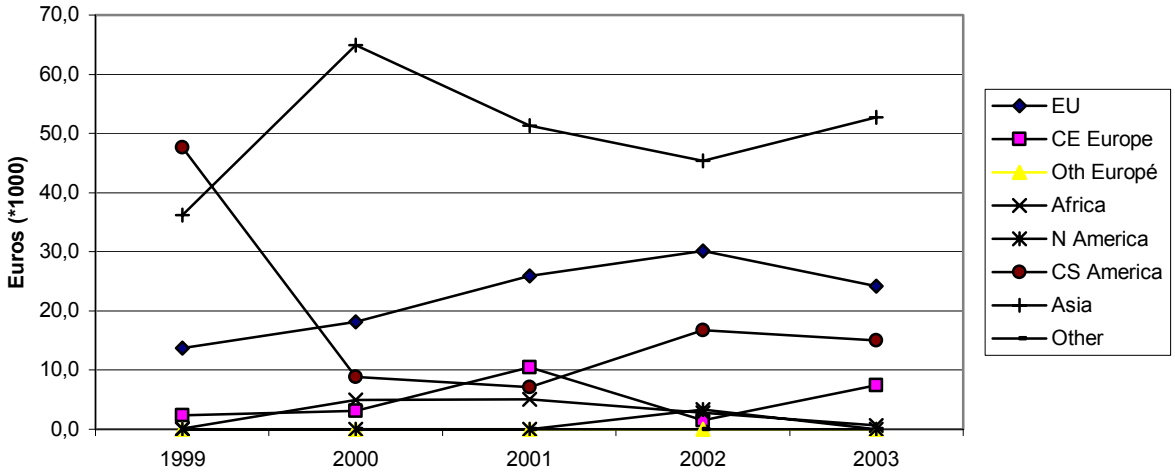

Figure 53. Imports of doors of tropical wood by region 1999-2003 (Value distribution). Source: ISTAT.

Altogether, these regions account for 90 % of the Italian imports of doors. For the EU a slight increasing trend is recorded, while CS America has experienced a dramatic drop from almost 50 % in 1999 to the level of 10 % to 15 %. For Asia the earlier development shows large changes between the peak of 70 % and the lowest figures 36 % in the beginning of the period. Since then the Asian share seems to have stabilised at the level of 50 %.

The export share of sub-sector **other joinery** is stable around 65 % of the total export volume of builders joinery over the observation period. The exports of other joinery comprise a remarkable share of the total builders' joinery exports. The import share has, in turn, been even higher, almost 90 %. The imports have increased much more than the exports and consequently the negative trade balance (net imports) of other joinery tends to increase considerably. A doubling of the trade deficit has occurred within the past five years (Figure 54).

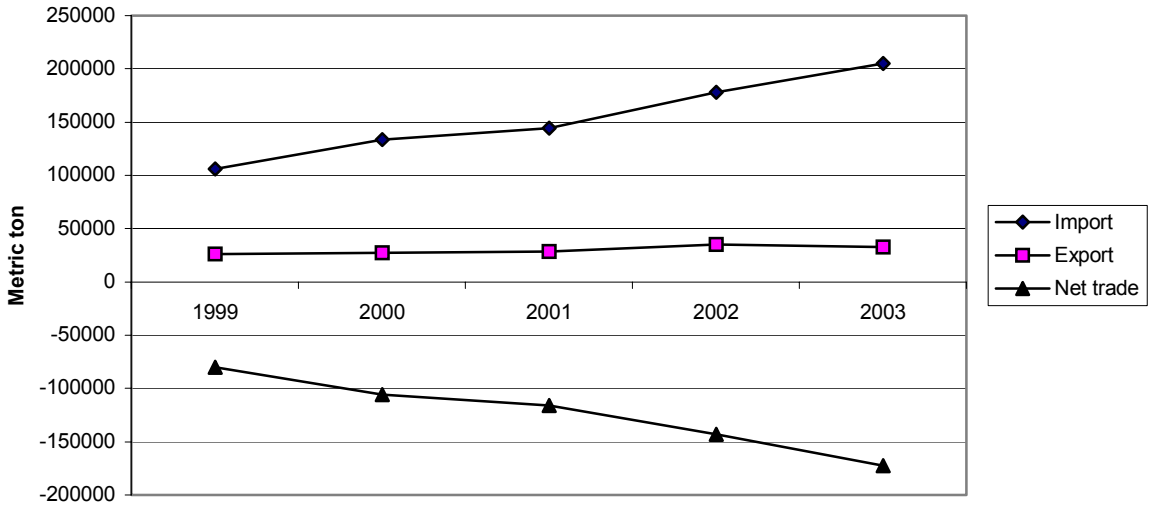

Figure 54. Trade in other joinery 1999-2003. Expressed in metric ton. Source: ISTAT.

The exports of other joinery are directed mainly to Germany, Switzerland, Austria, France and Spain. After 8 per cent increase during the period these countries now account for 66 % of the Italian exports of other joinery products. There has been some increase of the overseas exports to USA, Japan and South Korea. In 2003 approximately 5-6 %, 3 % and 3 %, respectively, of the Italian exports were delivered to these countries. All of them have shown a slightly increasing demand. The exports to East Europe are at low levels, and have developed only slowly. All the other countries are marginal buyers of Italian other joinery products.

The imports of other joinery products originate to a large extent from the EU. Almost 3/4 is delivered by Austria and Germany: 48 % and 26 %, respectively. During the period the Austrian share has decreased with two per cent while Germany has increased with 9 %. Slovenia, from which 8-9 % of the imports originate, is also an important supplier. The imports from East Europe are regular, but account only for a few per cent per country even if one can recognize a weaker increase in exports to Italy. Together with an increasing number of East European countries targeting the Italian markets higher market shares are expected in the future. Moreover, some imports originate from tropical countries, for example Indonesia accounts for about 3 %, and small quantities are occasionally imported from Malaysia, Ghana and Brazil. Imports from other countries are limited with a declining tendency.

To sum up the trade in builders' joinery, the trade within the internal EU-market is at the constant level, it increases towards the eastern European countries and some of the countries in the Far East. Also, the United States is an important trading partner. For the moment other countries are of limited importance for the Italian trade in builders' joinery. The trade of products made of tropical wood is limited and mainly concentrated on the sub-sectors windows and doors.

3.2.6 Flooring

Flooring is a sub-sector of the primary and secondary processing arena (wood and wood products) for which an overall review was given in section 3.1.3 in terms of annual turnover and trade. It is included under the category of 'other joinery' within the builders' joinery. Also in section 3.1.3, a generic branch review over the number of firms and employees involved in flooring was presented over the period of ten years from 1991 to 2001 based on available reported data.

Italy is a net importer of floors[31]. The description of trade in floors is given by import sources and export destinations. During the period 1999-2003 the imports have continued to increase and the exports to decline (Figure 55). Consequently, the trade balance in volume terms has become even more negative for Italy.

[31] Data on domestic production of flooring are not available but the consumption was estimated to 13-14 million m^2 in 2003-2004 (Professional Parquet, Year 14, No.2, March/April 2005). Furthermore, the trade data from ISTAT enable calculation of net trade, and the estimation of domestic output of flooring roughly to 4 million m^2. Thereby, the rate of self-sufficiency for flooring is low, less than 1/3 of flooring is produced in Italy.

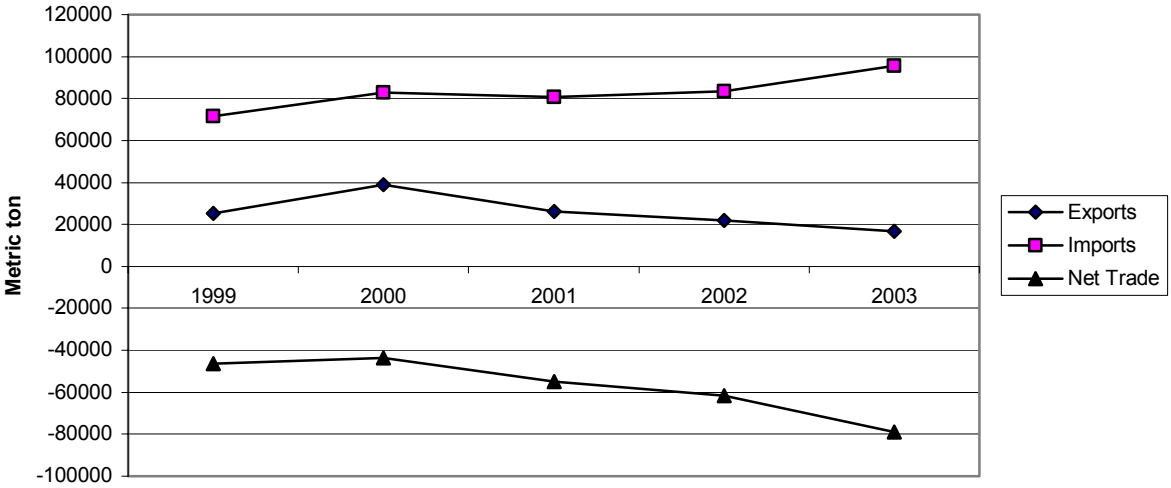

Figure 55. Trade in flooring 1999-2003. Expressed in metric ton. Source: ISTAT.

Expressed in value terms the trade pattern essentially indicates a similar development as the previous one given in metric tons. The imports in nominal value have increased since 1999 at 43 % whereas for the exports the tendency is decline. Thus the net imports is approaching the level of 120 million Euros; an increase of 60 % over the period (Figure 56). A considerable share of the increase occurred from 2002 to 2003 when the import demand experienced still a stronger shift upward while the exports continued downward.

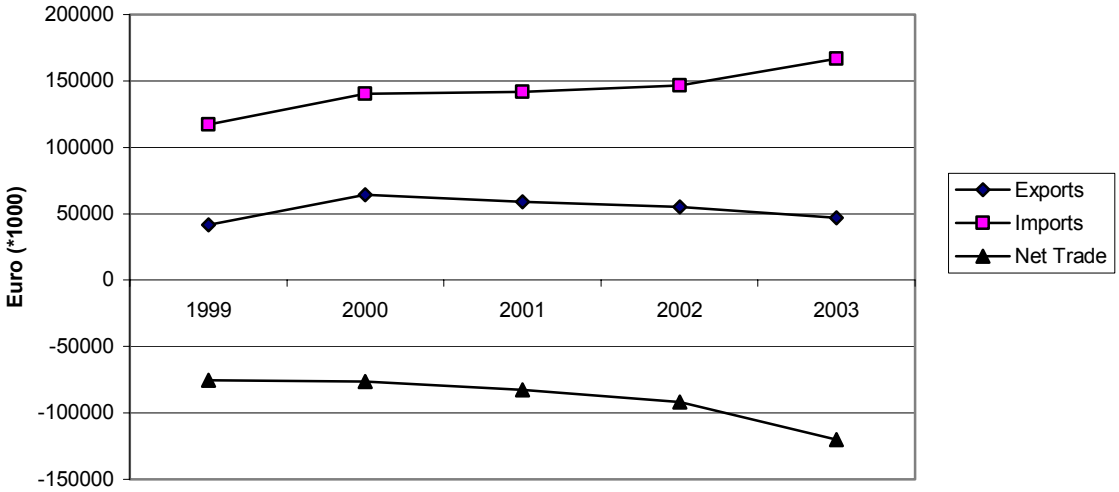

Figure 56. Trade in flooring 1999-2003. Expressed in Euro (*1000). Source: ISTAT.

In contrast to the increasing imports to Italy flooring exports show a decline. Most of the exports are still directed to the internal EU-market where Germany, France, Austria, Spain, UK, Greece and Belgium cover about 49 %. However, a weak decline is recorded for these countries from 1999 to 2003 (Figure 57).

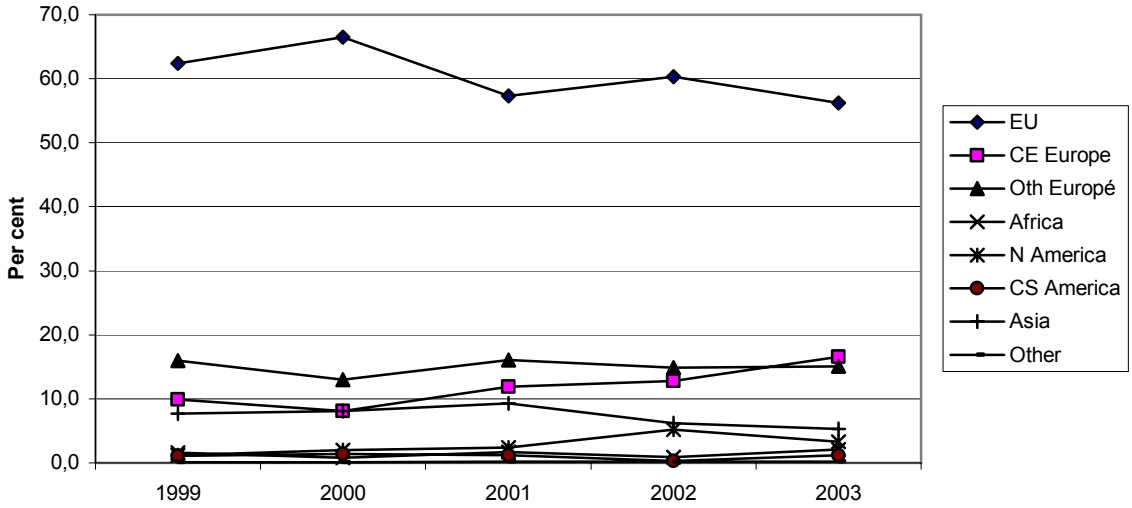

Figure 57. Exports of flooring by region 1999-2003 (Value distribution). Source: ISTAT.

Within 'Other Europe' Switzerland, as a considerable importer of Italian flooring products, accounts for an increasing share, 9 % in 2003, but, in general, this region has just maintained its markets shares at the level of 15 %. In contrast, East and Central Europe are becoming more important destinations for Italian exports of flooring for which a steady increasing trend is recognized. In 2003 the market share for these countries surpasses 'Other Europe'. Contributing countries, for example, Croatia and Slovenia account for almost 3 % in 2003 - an increase from almost zero in 1999. A similar development can be recognized concerning the exports to the Russian Federation.

The Italian exports to Turkey have experienced a considerable decline from 7 % to 3 % but still Turkey is the most important export destination for the Italian flooring industry. The Turkish development is indicative for the whole Asian region that recently has experienced a weakly decreasing trend over the period. Other important trading partners in Asia are still Japan and South Korea. All the other regions' shares are marginal but regarding the exports to USA one can recognize a slightly increasing trend from a very low level ending up to over 3 % in 2003.

Regarding the imports of flooring the EU region tends to increase its share and it is approaching 1/3 of the value of the Italian flooring imports (Figure 58). Germany, Austria, France and Belgium obtained a slightly higher market share, 14 %, of the Italian imports during the period 1999-2003. For the Nordic countries, Finland, Denmark and Sweden, a doubling of their share up to 6 % is recorded by 2001. The imports from Central and East Europe are growing in importance where Croatia and Romania account for a dominating market share. In line with this increasing trend are also the imports from Ukraine, Hungary and Poland. Altogether, roughly 20 % of the Italian imports originated from Central and East Europe in 2003. The region 'Other Europe' is of limited importance in this context.

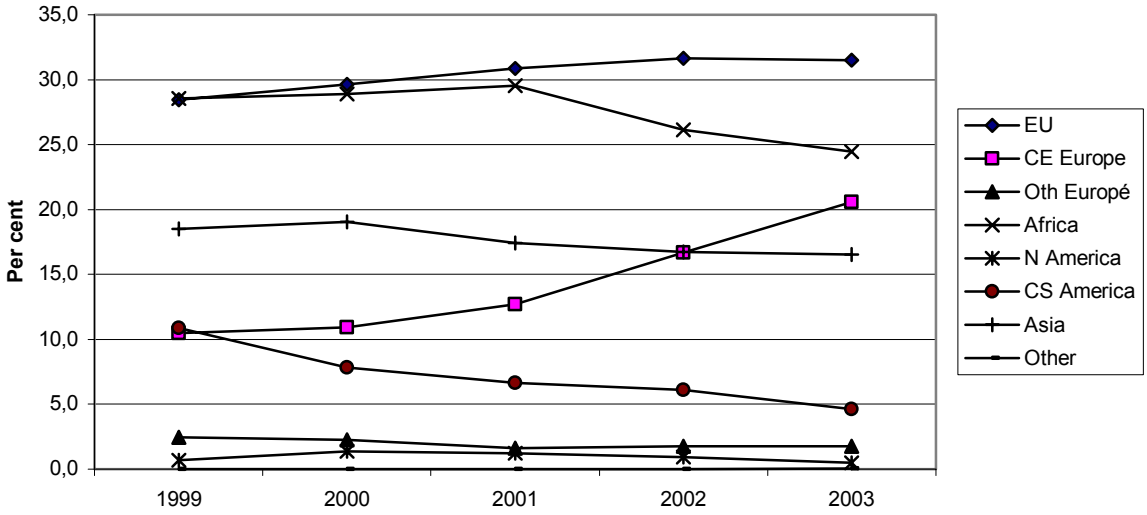

Figure 58. Imports of flooring by region 1999-2003 (Value distribution). Source: ISTAT.

Africa as the second biggest supplier accounts approximately for 25 % in 2003, also after a decline with some per cent over the period. Traditionally, the supply is from Cote D'Ivory, Nigeria, Cameroon, Ghana and the Democratic Republic of Congo. In particular, deliveries from Nigeria have decreased over the observation period.

In contrast to the increasing demand for flooring products from CE Europe the imports from Central and South America have been decreasing and in 2003 the market share fell below 5 % - a decline from 11 % in 1999. Brazil and Paraguay are the major suppliers. A companying decline but somewhat lower than in CE America is recorded for the imports from Asia. This region, however, is still the fourth largest supply region with 16 % of the Italian imports of flooring. Indonesia dominates as an exporter from Asia together with Myanmar and Thailand, which altogether have a market share of 13 % of the Italian imports while China and Malaysia have gained 2 per cent of the market in Italy over the period.

Regarding the remaining regions, North America and 'other regions', the imports from them are of limited value.

Summing up, the net imports of flooring to Italy increased remarkably within a short period of five years. The EU is gaining increasing export shares but the development is the opposite for the import shares that record a decline. In general, the trade towards and from Central an East Europe expands and there are some signs of that also regarding the North America region. The imports from Africa tend to decline in line with the imports from Central and South America and Asia.

3.2.7 Mouldings

Mouldings is a sub-sector of the primary and secondary processing arena (wood and wood products) for which an overall review was given in section 3.1.3 in terms of annual turnover and trade. Mouldings belong to the sub-grouping 'other joinery' within category 'builders' joinery'. A generic description of the branch development with respect to the number of firms and employees involving also moulding manufacturing is carried out for 'other joinery' over the period of ten years from 1991 to 2001 based on available studies in section 3.1.3.

Here, a more detailed review of trade of mouldings is given by import sources and export destinations, also specifically highlighting the trade in mouldings (wooden frames) of tropical wood.

Statistics show that Italy is a net exporter of mouldings. During the period 2000-2003 the imports have remained at constant but low level, around 5300 m^3 per annum, whereas the considerably larger exports quantities have declined from 37 000 m^3 to slightly below 30 000 m^3 during the same period (Figure 59). Accordingly, the positive trade balance is eroded. Also, in value terms the decline is considerable; approximately 20 % of the positive trade balance since the peak level in 2000 has disappeared (Figure 60) for which development the decreasing exports seem to be the only reason.

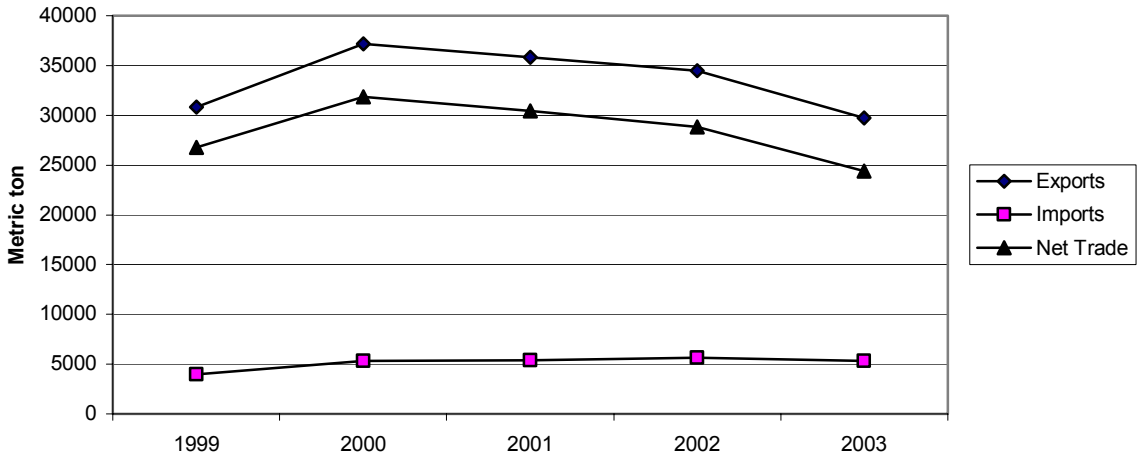

Figure 59. Trade in mouldings 1999-2003. Expressed in metric ton. Source: ISTAT.

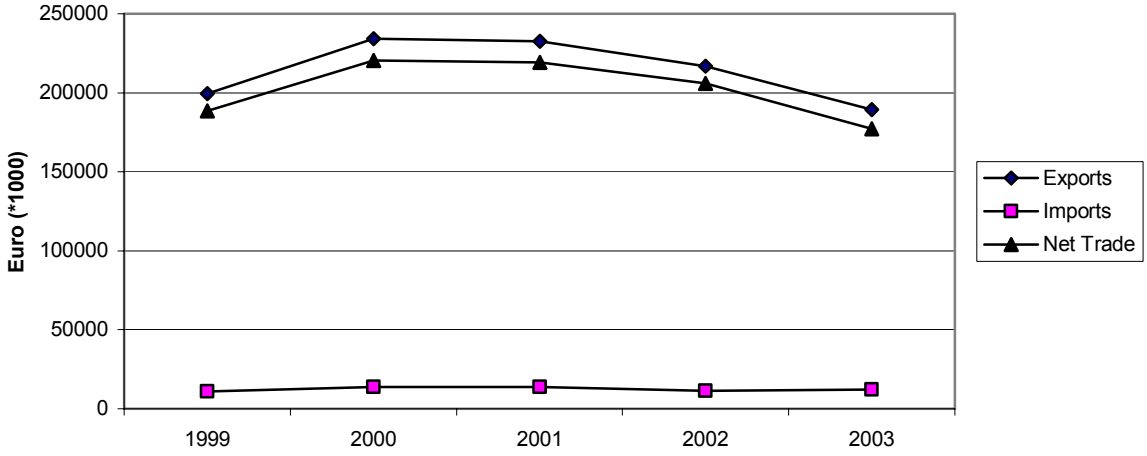

Figure 60. Trade in mouldings 1999-2003. Expressed in Euro. (*1000). Source: ISTAT.

The exports of mouldings, in general, are mainly concentrated to the EU-area that obtains approximately 56 % of the Italian exports of mouldings over the period (Figure 61). Germany, UK, France, Spain, the Netherlands, Belgium, Greece and Austria are the foremost dominating trading partners. After the EU North America is the largest importer of mouldings with 27 % to 28 % of the exports from Italy showing a stable development of its market shares, as do also all the other regions but at considerably lower levels. Notice that Central

and East Europe and Other Europe tend to increase their shares slightly whereas the opposite is indicated for Asia.

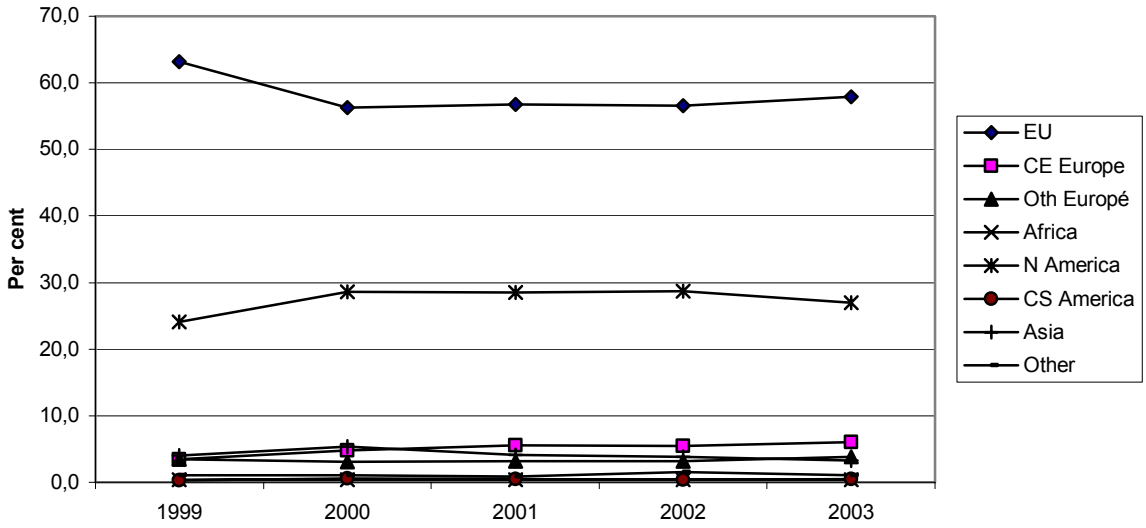

Figure 61. Exports of mouldings by region 1999-2003 (Value distribution). Source: ISTAT.

With respect to the imports Asia supplies with the major share of the moulding imports to Italy. However, a decline from the earlier level of over 60 % to around 55 % during the last two years is recorded (Figure 62). In contrast to this decrease from Asia the imports from Central and East Europe have increased remarkably and obtained 20 % of the Italian import market in 2003. This is the same level as the imports from the EU-area, in which especially Austria, Germany and Portugal dominate Italian imports. The imports from the EU seem to fluctuate but remain at relatively constant level of 20 % to 25 %. North America, Central and South America and other regions have very limited exports of mouldings to Italy.

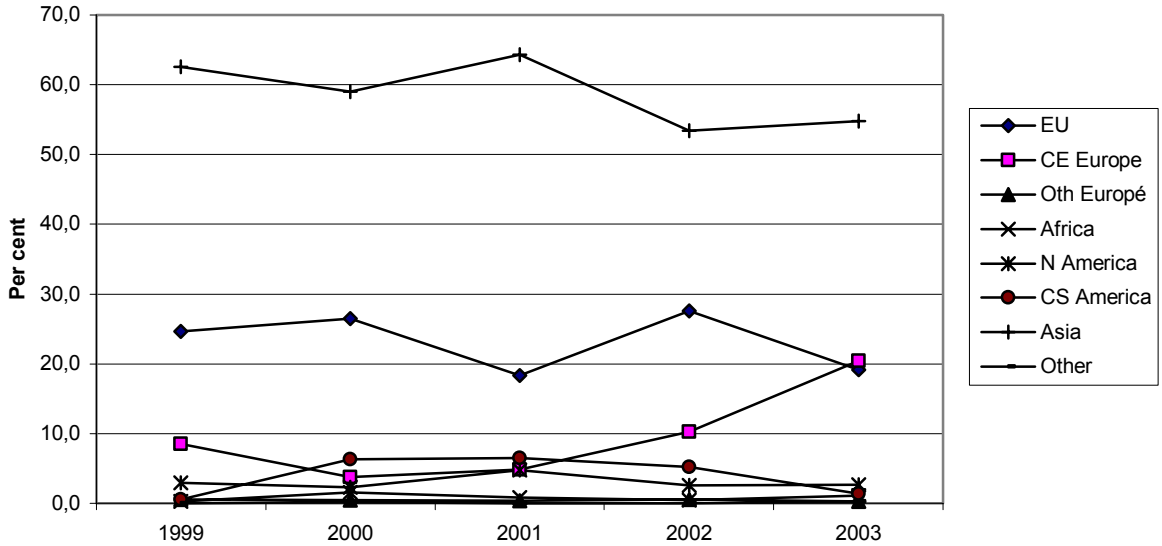

Figure 62. Imports of mouldings by region 1999-2003 (Value distribution). Source: ISTAT.

Considering the exports by sub-group 'non-coniferous mouldings for frames' they obtain about 50 % of the market shares and display a slightly increasing trend (Figure 63). 'Non-tropical wooden frames', in fact a further processed product, accounts for a stable share of 30

% over the period. The remaining sub-groups 'coniferous mouldings for frames' and 'tropical wooden frames' also show relatively stable market shares at the level of 12 % and 6 %, respectively.

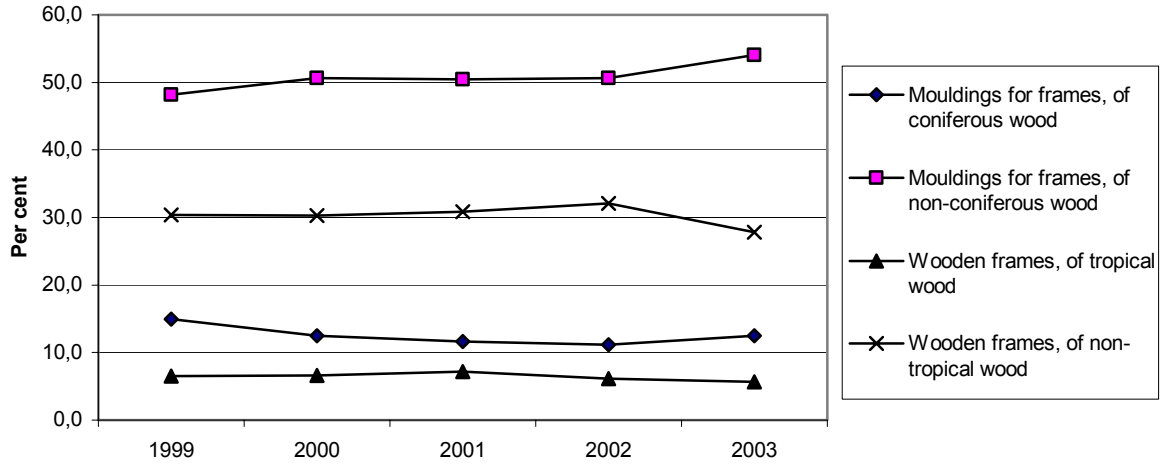

Figure 63. Exports of mouldings by sub-group 1999-2003 (Value distribution). Source: ISTAT.

The imports by sub-group are to a great deal dominated by 'non-tropical wooden frames' receiving ¾ of the import shares over the period (Figure 64). The sub-group 'tropical wooden frames' is of marginal importance obtaining a few per cent. The less value-added sub-groups 'non-coniferous' and 'coniferous mouldings for frames' obtain approximately 10 %, respectively, of the markets in 2003; the former one after a slight decline over the period whereas the latter one displays somewhat more irregular development pattern.

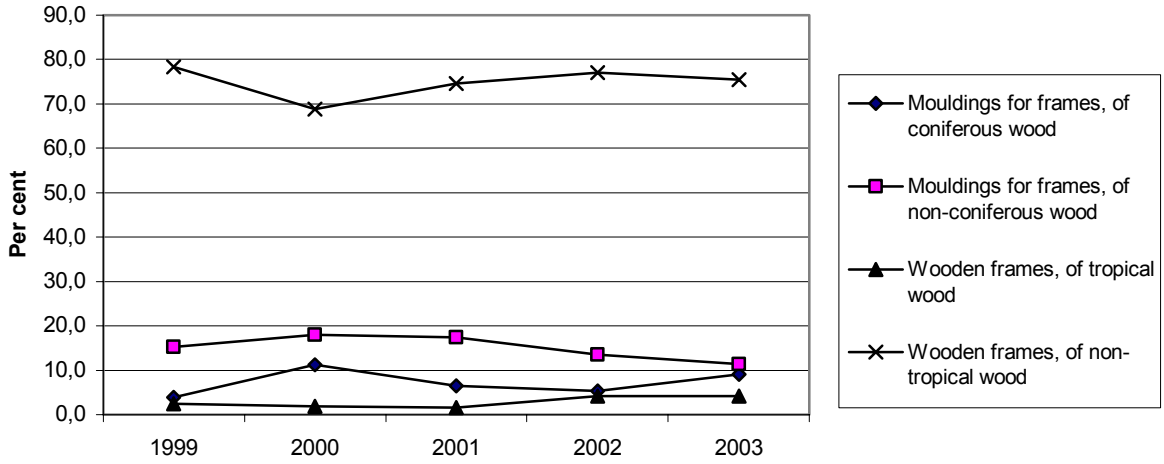

Figure 64. Imports of mouldings by sub-group 1999-2003 (Value distribution). Source: ISTAT.

Then, focusing on the 'wooden frames of tropical wood' the exports from Italy enter the EU internal markets and subsequently obtain 80 % of the market shares (Figure 65). The

remaining shares of 20 % are distributed between all the other regions; none of these obtaining more than at maximum 10 % of the exports expressed in value terms.

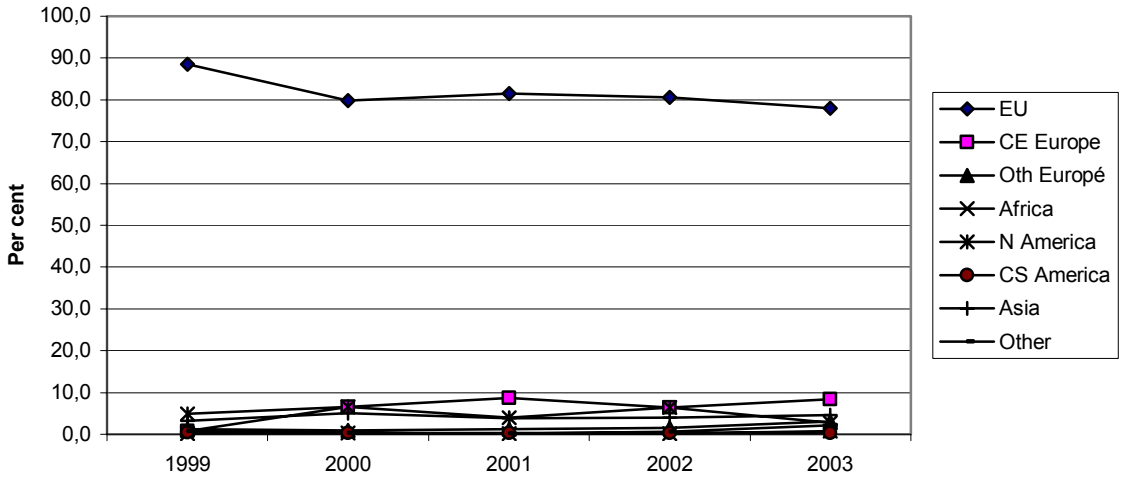

Figure 65. Exports of wooden frames of tropical wood by region 1999-2003 (Value distribution). Source: ISTAT.

Regarding imports the EU supply is not as dominant as in the case of exports of 'wooden frames of tropical wood' but still the deliveries from the EU account for more than over 60 % (Figure 66). The remaining shares, below 40%, are then distributed between Asia and Central and East Europe quite equally 20 % for each in 2003. In 2003 Asia is approaching the same level as 1999. CE Europe in turn has expanded strongly a couple of years ago from a very low level.

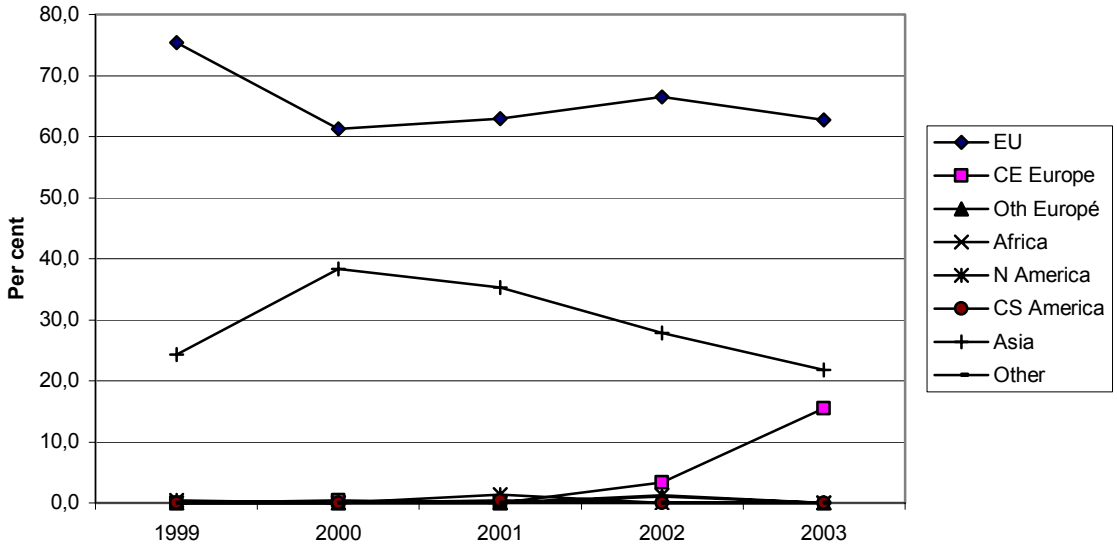

Figure 66. Imports of wooden frames of tropical wood by region 1999-2003 (Value distribution). Source: ISTAT.

In conclusion, the exports of mouldings to the EU are decreasing while the exports to North America and Central and East Europe are increasing. Regarding imports the shares of Asia and the EU are declining but an opposite development is recognized for the Central and East

Europe. Mouldings and wooden frames of tropical wood constitute only a minor part of the trade in mouldings. Even in case of tropical the trends are similar to the generic trends; the exports to the EU decline but increase to CE Europe whereas the imports from the EU slightly decrease but increase to CE Europe. A substantial share of the imports still originates from Asia, but a decline has taken place during the period.

Moreover, it is to notice that mouldings in this section are limited to cover mouldings and wooden frames for painting, mirrors, etc. It is reasonable to assume that mouldings are used also for construction purposes. However, there is no specific information on mouldings for such purposes. These uses and trade are included in other definitions and customs codes, which means that the trade in 'mouldings' may be larger than indicated here.

3.2.8 Millwork

There are several definitions of 'millwork'. According to the definition applied here 'millwork' consists of final wood products[32] excluding wooden furniture, builders' joinery, flooring and mouldings.

The section starts with an overall review of trade of millwork products with an outline of exports and imports by region in value terms and thereafter focusing specifically on millwork products of tropical wood. However, it should be noted that *around 99 per cent of the exports and imports, respectively, are in non-tropical species*. At the end some concluding remarks are given.

Italy has a negative balance in millwork trade that even show an increasing tendency over the period from 1999 to 2003. The latest drop in 2003 down to minus 70 million Euros is a consequence of continuously decreasing exports since 2001 while the imports seem to have remained at a constant level of almost 350 million Euros (Figure 67).

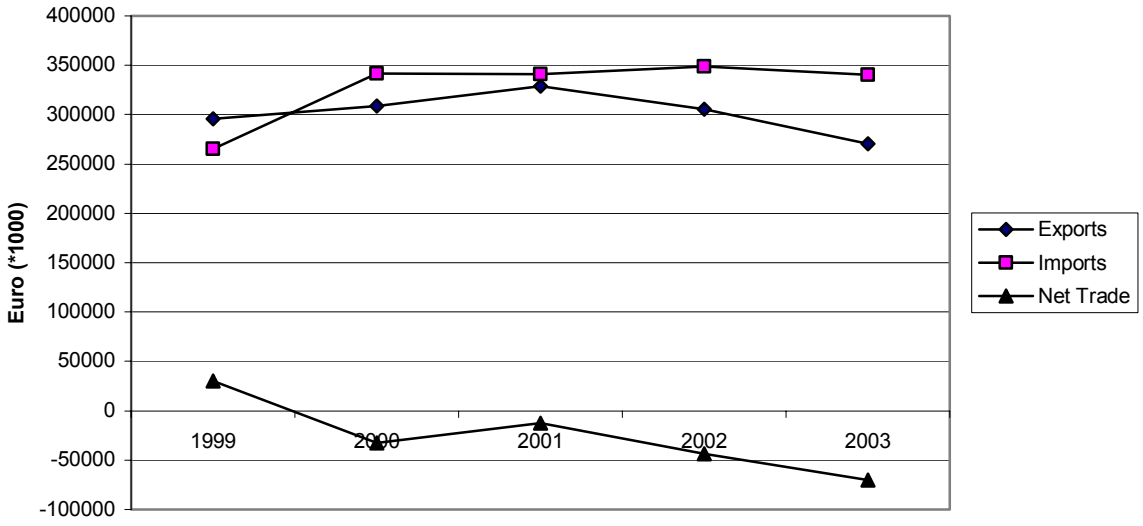

Figure 67. Trade in millwork 1999-2003. Expressed in Euro (* 1000). Source: ISTAT.

The exports to the EU have decreased that, having previously been almost the only market for Italian millwork exports, now in 2003 is approaching the level of 50 % (Figure 68). All other regions, except from Central and South America and 'others', seem to gain increasing market

[32] See Appendix 7. Also compare with Federlegno-Arredo (2004) and Michie, B. & Wardle, P. (2005).

shares but at low initial level each. Among these the most prominent are North America, Other Europe and Asia obtaining around 10 % each of the market shares in 2003.

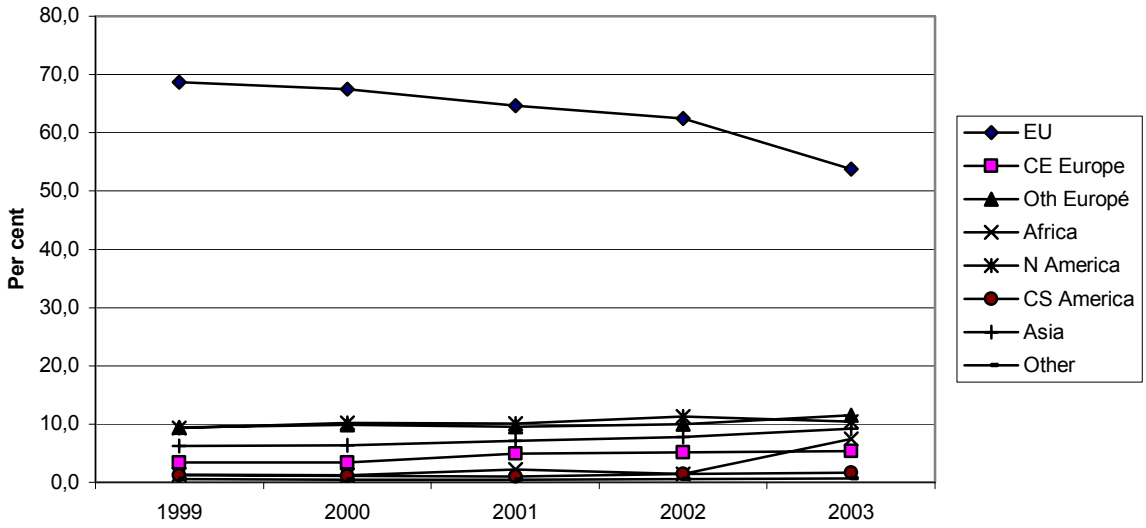

Figure 68. Exports of millwork by region (Value distribution). Source: ISTAT.

The imports originate from the EU, Central and East Europe and Asia that accounted approximately for 40 %, 34 % and 19 %, respectively, at the end of the period (Figure 69). The shares have been relatively constant over the years, except in 2003 when the EU experienced a drop and when Asia, in contrast, increased its share. Supplies from other regions cover the remaining shares Central and South America being the fourth largest supplier obtaining, on average, 3 per cent of the imports to Italy. The other regions show only marginal shares.

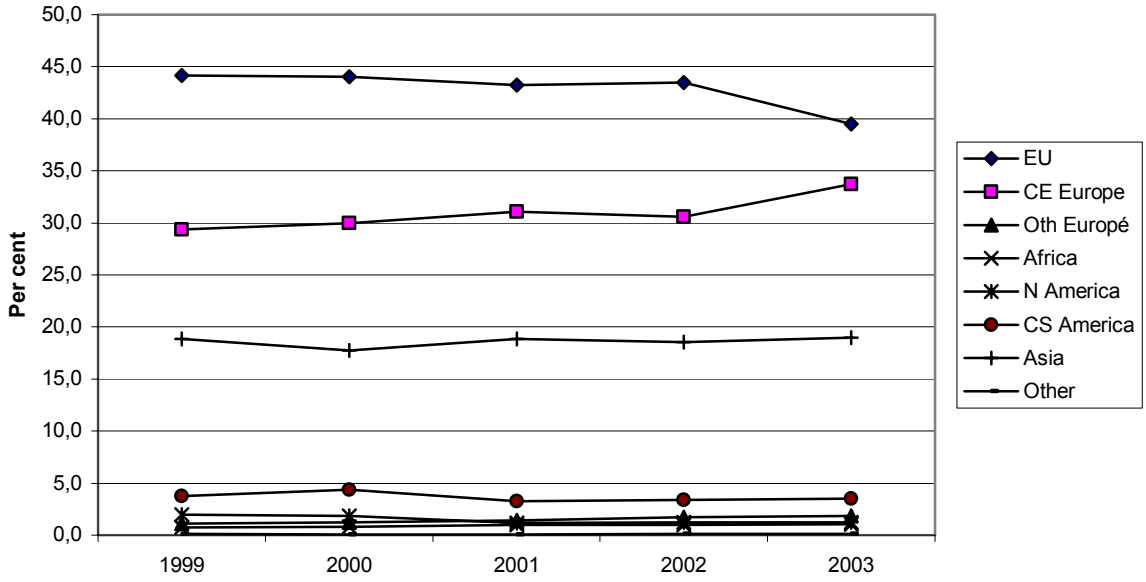

Figure 69. Imports of millwork by region (Value distribution). Source: ISTAT.

Focusing only on millwork products of tropical wood the value shares of exports and imports for these products are annually around 1 % and below 1 %, respectively, over the period; i.e. the trade in tropical species is extremely limited for 'tropical' millwork products in

comparison with the non-tropical trade. While considering millwork as a product aggregate Italy is net importer since 2000 expressed in value (Figure 67) and volume terms. With respect to the trade in millwork based on tropical wood, however, Italy is a net exporter in value terms but again a net importer when the trade is reviewed in volume terms. A likely interpretation of this is that a considerable value adding takes place in Italian wood manufacturing industries before exporting the products further.

During the past 3 years the export share of tropical millwork to North America has passed 50 per cent, a slight upward shift since 1999 (Figure 70). Over the same period the EU that in 1999 received around 40 % of the deliveries from Italy has declined to 5 % in 2003. The third main target region with a market share of roughly 10 % annually is Asia that together with Africa, Central and East Europe, and Central and South America in 2003 increased their imports considerably compared with the year before. For Other Europe an opposite development was recorded, when its market share in 2003 returned back to the earlier level it experienced during the period. In general, the exports have diversified, especially in 2003, the EU has lost its dominance and instead North America has gained market shares being the main market of Italian millwork products of tropical wood.

Approximately 2/3 of imports of tropical millwork originate from Asia, and especially from China and Indonesia, at the end of the period. The imports from Asia tend to increase to a degree, which is characteristic for the decreasing imports from the EU (Figure 71). Another longstanding source is Africa for which the annual market share at the level of roughly 10 % is recorded over the period. Recently the imports from Other Europe have also increased and reach almost the same level with the African ones. The remaining market shares are then distributed between all the other regions.

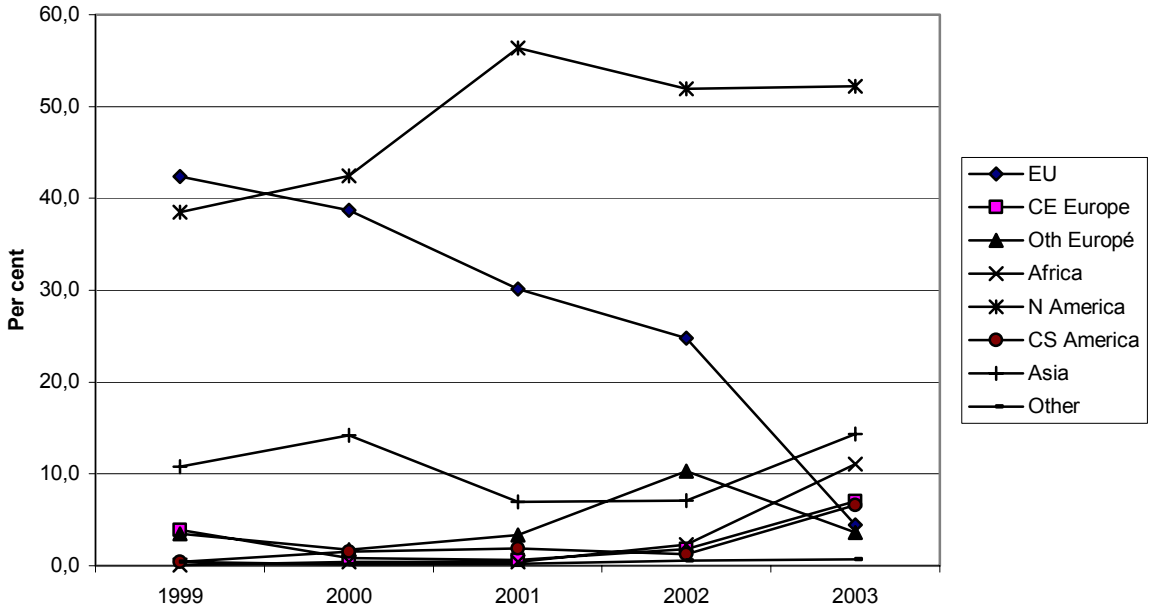

Figure 70. Exports of tropical millwork by region (Value distribution). Source: ISTAT.

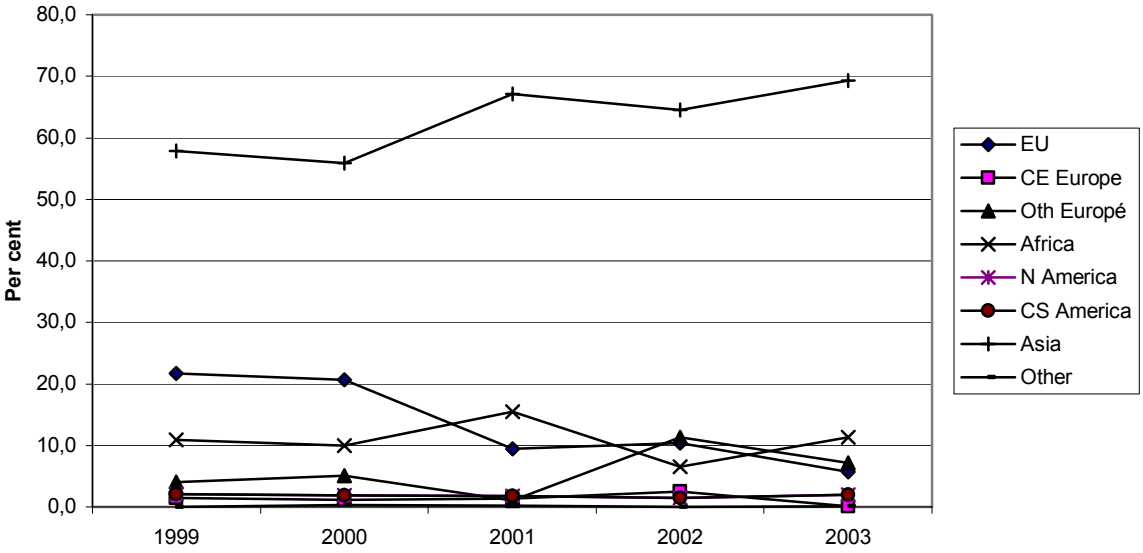

Figure 71. Imports of tropical millwork by region (Value distribution). Source: ISTAT.

Summing up, the Italian exports of millwork, in general consisting of 99 per cent of non-tropical wood, are delivered to the EU but also to some other European countries, North America and even Asia. The tendency for the EU is decreasing whereas for the other regions an increasing trend is recorded. Regarding imports most deliveries originate from the EU, Central and East Europe at relative constant levels during the period and expressed in value terms. From the point of view of millwork based on tropical wood (approximately one per cent of the value of the total millwork exports and imports, respectively) the trade picture, however, differs substantially. The exports are mainly directed to North America whereas the sourcing is taking place, up to 70 %, in Asia. In a sense, when Italy is net value exporter vis-à-vis net value importer of tropical millwork, the interpretation is that Italy is acting as a transfer point for value-adding activities on tropical millwork products.

3.2.9 Wooden furniture

The section presents first the overall balance of all furniture trade distributed by origin and destination of imports and exports, respectively. Thereafter, the focus is on the wooden furniture trade.

The definitions and customs codes for furniture in general and for wooden furniture in particular are given in Appendix 7. It is noticeable that furniture in general in Appendix 7 is classified into furniture (excluding vehicle furniture and mattresses) and wooden furniture. As is noticed there is no specific information about furniture of tropical wood.

Furniture in general

As to **the total trade balance**, excluding mattresses, (Figure 72) the imports of furniture show an increasing trend whereas the exports are slowly declining from the high level, over 2 million tons, in 2000 and 2001. Accordingly, this indicates a weakening net trade even if it still amounts to net exports of about 1.5 million ton in 2003 and the development is parallel to the development expressed in the value terms (Figure 73). In 2003 the net trade was 7.4 billion Euros after a decline from a higher level of over 8 billion Euros in 2001. Obviously since then, the value of exports is decreasing while for the imports a slightly increasing trend

is recorded over the whole period. However, the imports, at the level of 1 billion Euros account for about 10 to 12 % of the export value per annum so the net trade is strongly positive for the Italian furniture industry.

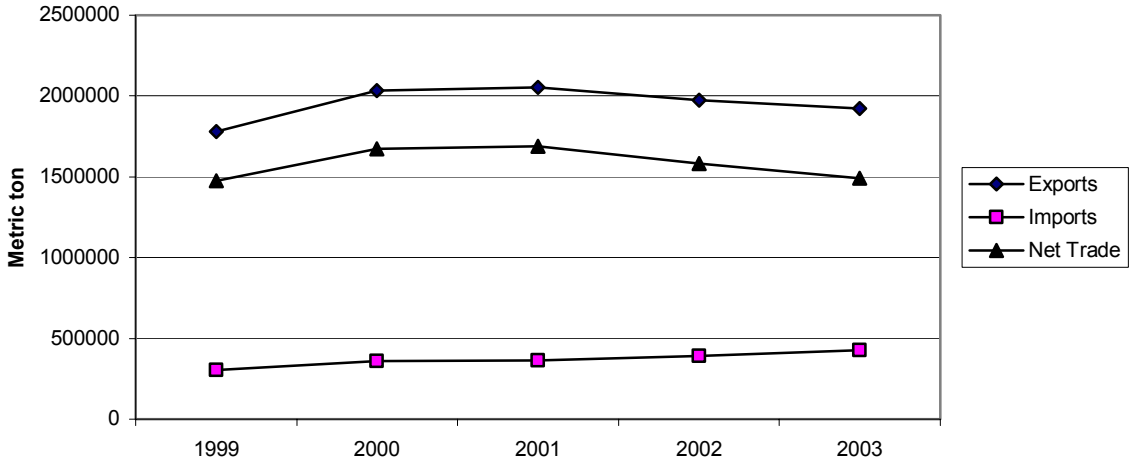

Figure 72. Trade balance for furniture 1999-2003. Expressed in metric ton. Source: ISTAT.

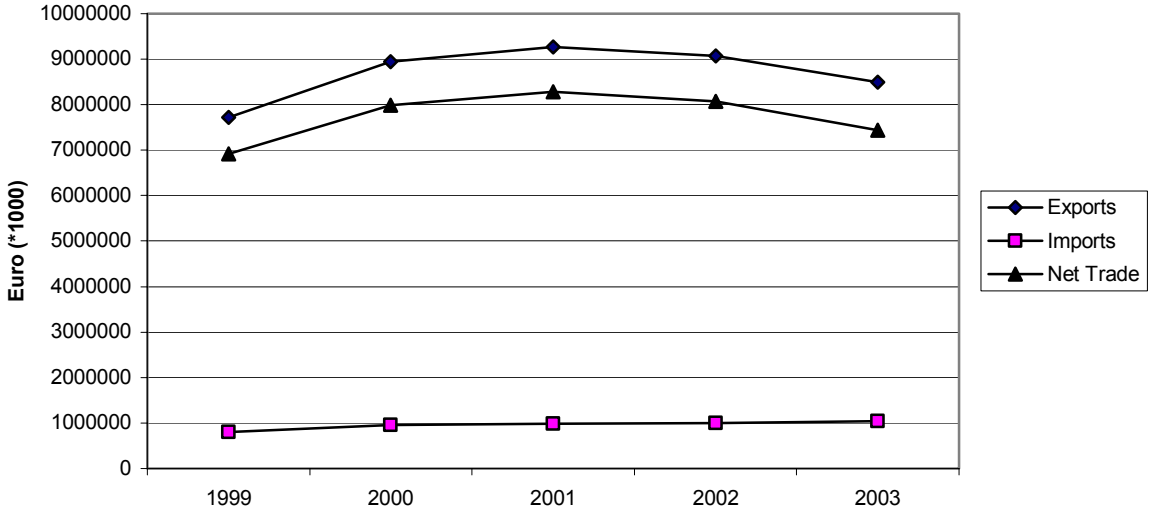

Figure 73. Trade balance for furniture 1999-2003. Expressed in Euro (* 1000). Source: ISTAT.

The Italian **exports of furniture** to the EU accounts for almost 60 % of all exports during the period in terms of volume share (Figure 74) and the value share as well (Figure 75). There has been a weak decline but the data for 2003 indicates a slight recovery. Germany, France and United Kingdom (UK) are the most prominent importing countries with 40 % of the total Italian export volume. This share has been fairly constant over the years. However, the country wise shares are changing: Germany has decreased from 21 % to 15 %. At the same time, the French share has increased marginally from 13 % to 15 % whereas UK has experienced a strong increase from a low level of 8 % to over 12 %. Comparing figures 72 and 73 it can be concluded that there is higher value-added in exports than in the imports.

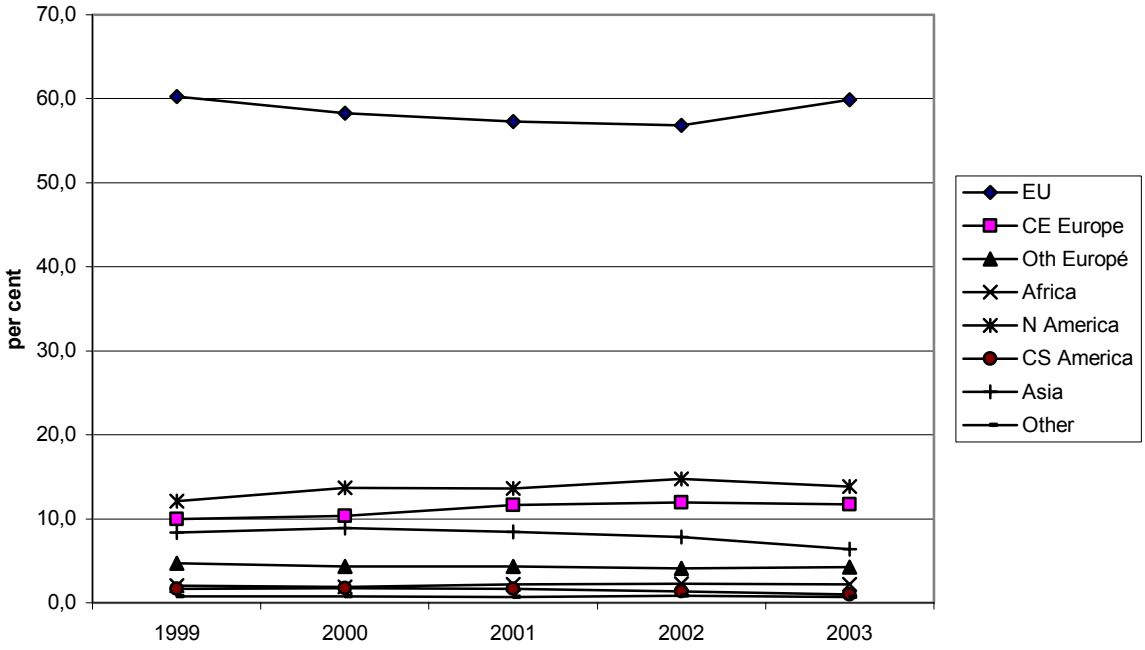

Figure 74. Furniture exports by region 1999-2003 (Volume distribution). Source: ISTAT.

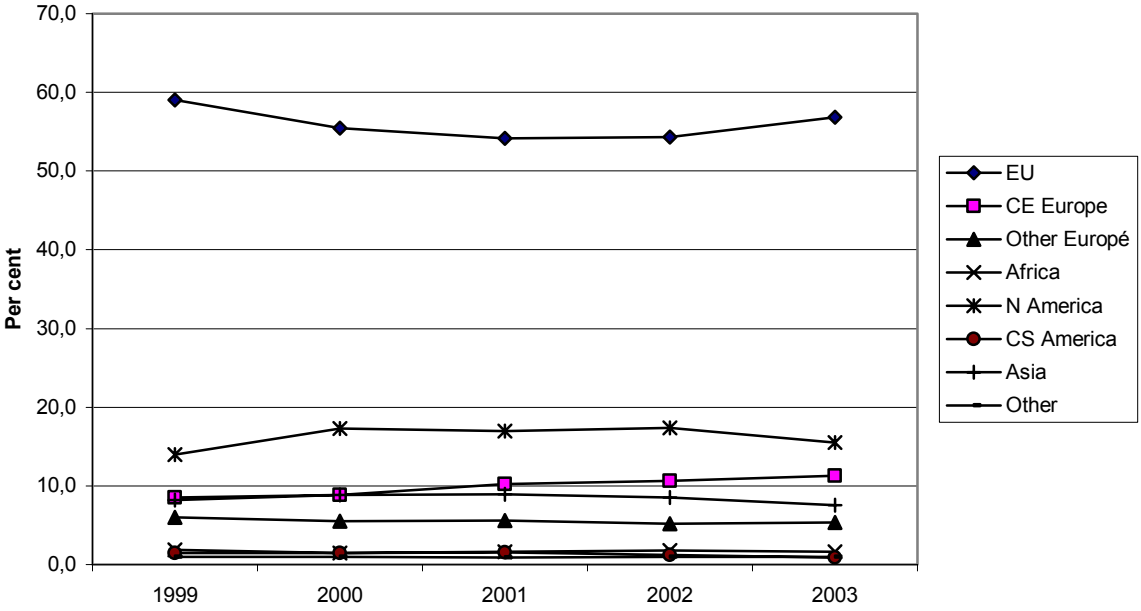

Figure 75. Furniture exports by region 1999-2003 (Value distribution). Source: ISTAT.

Among the other export destinations North America, and in particular the United States, is the foremost important region for the Italian exports with a slightly increasing trend for its volume share (slightly over 15 % at the end of the period) whereas the most recent figure for value share indicated a weak decline. Another region showing an increase of the value share from 8.5 % to 11.2 % is the Central and East Europe. During the period the volume share shows a more stable development; an increase from 10 % to 11.7 %. Within this region especially the adjacent countries to Italy, Croatia and Slovenia are important partners in furniture trade but also some more distant countries such as the Russian Federation.

An opposite weakly decreasing trend is recorded for Asia where the Middle East region has previously accounted for about 6 % of the volume share but is now approaching the level of 4 %. This is also the share, pending between 3-4 %, of the exports to Other Europe from Italy. Finally considering the Italian exports to Asia (the Far East), Africa and North and Central America the volume and value shares at the level of 2 per cent are typical for each of these regions' imports from Italy. For all the other destinations the export percentage is below 1 %.

The Italian **furniture imports** originate mainly from three regions: the EU, Central and East Europe, and Asia. Previously, the imports from the EU were dominating with a volume share of 37 to 38 % but a decline down to 28 % has taken place over the period. Subsequently, the market situation by 2003 has changed dramatically. The imports from Asia have increased considerably and its volume share amounts in 2003 to 28.7 % of the Italian furniture imports (Figure 76). In 2003 the corresponding value share of Asia is about 24 %, which can be compared to 42 % that is the share of the EU. The EU experienced a drop of 12 per cent over the period (Figure 77). The substitution obviously takes place between Asia and the EU. The increased deliveries from Asia are obviously contributed by China but Indonesia, Taiwan and Viet Nam are also considerable suppliers to the Italian furniture market. However, the largest import share, annually about 35 % of the volume and 27 % in value in 2003 after a slight increase for the value share over the period, is still recorded for Central and East Europe where Romania, Poland and Slovenia are important suppliers. Thereby, this region has remained the largest source for the Italian imports but it is remarkable that the imports from Asia expressed as volume and value shares are approaching the corresponding levels of Central and East Europe.

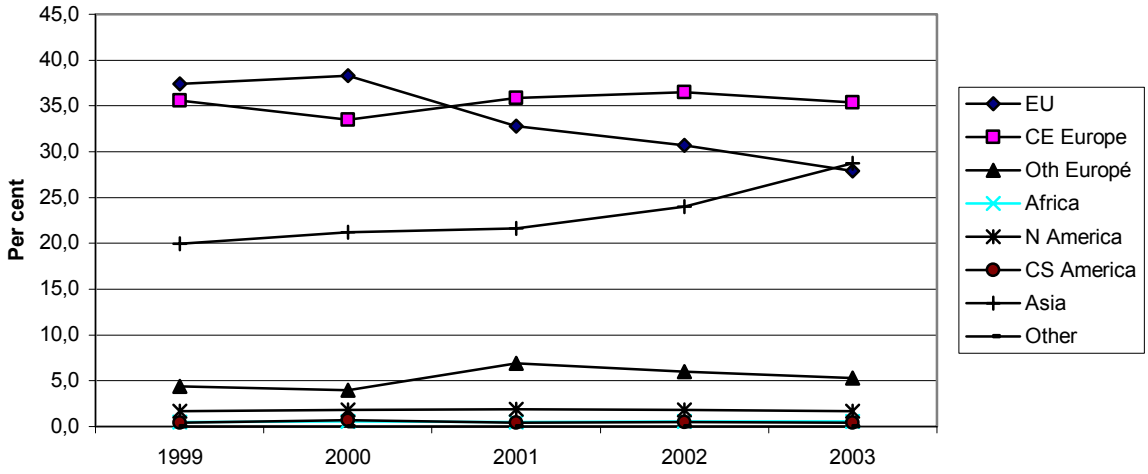

Figure 76. Furniture imports by region 1999-2003 (Volume distribution). Source: ISTAT.

The remaining volume and value shares of the Italian imports, each below 10 %, are then distributed between Other European countries not belonging to the EU or Central and East Europe, and North America as well as Africa in this order. The shares of these regions have been quite stable during the period, maybe with Other Europe showing a tendency to some increase - mainly from the Russian Federation. For other regions the recorded percentages are mostly below 1 %. Regarding imports from tropical sources, apart from China, Indonesia, Taiwan and Viet Nam, these are only marginal.

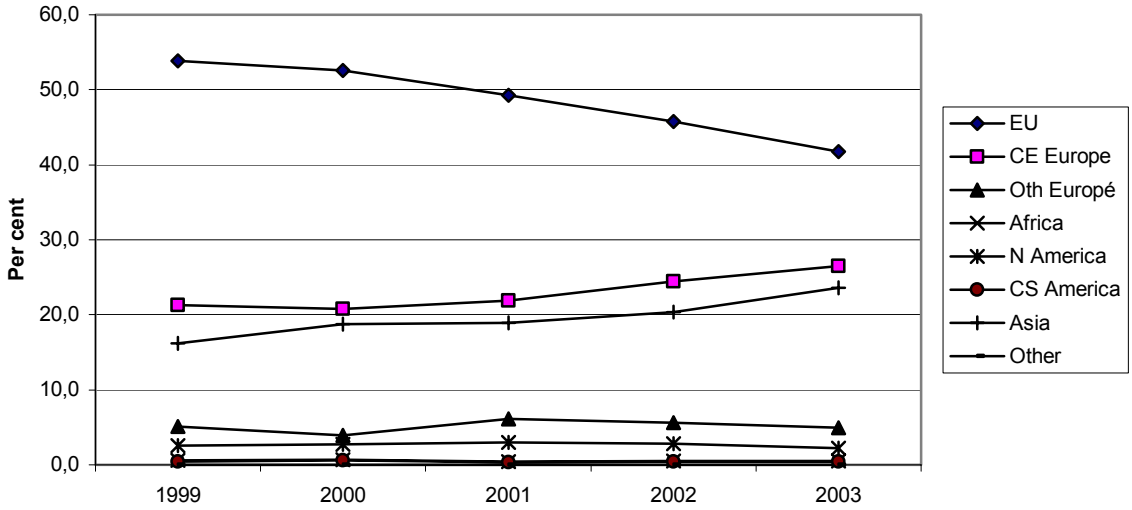

Figure 77. Furniture imports by region 1999-2003 (Value distribution). Source: ISTAT.

Wooden furniture[33]

As regards the **trade balance of wooden furniture** the view of the volume development (Figure 78) and value development (Figure 79) is parallel to the trade balance for the entire furniture sector expressed in volume terms (Figure 72) as well as in value (Figure 73).

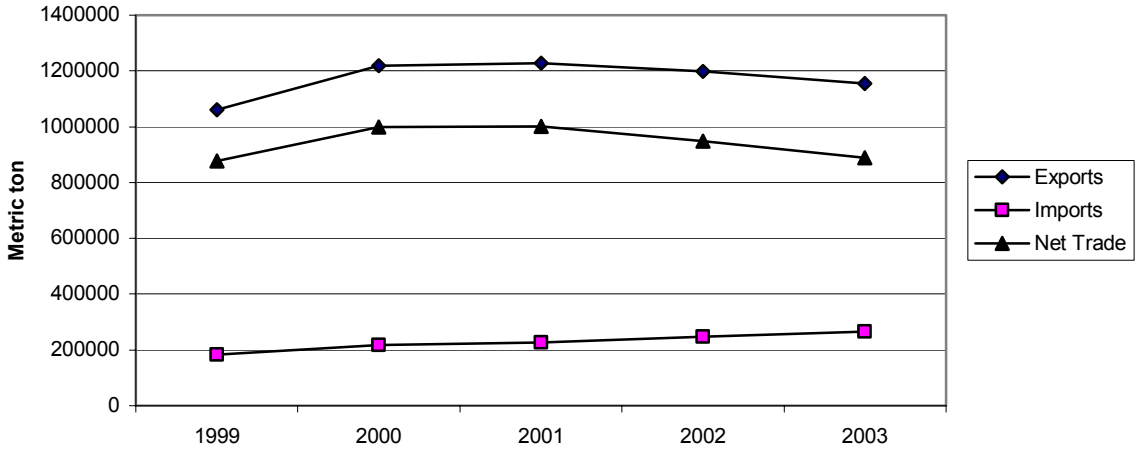

Figure 78. Trade balance for wooden furniture 1999-2003. Expressed in metric ton. Source: ISTAT.

[33] Wooden Furniture consists of Seats with Wooden Frame, Wooden Bedroom Furniture, Wooden Furniture NES (NES=not else specified but the sub-group comprises to great degree wooden furniture for dining and living rooms, shops, and other purposes), Wooden Kitchen Furniture, Wooden Office Furniture and Wooden Parts for Furniture (see also Appendix 7).

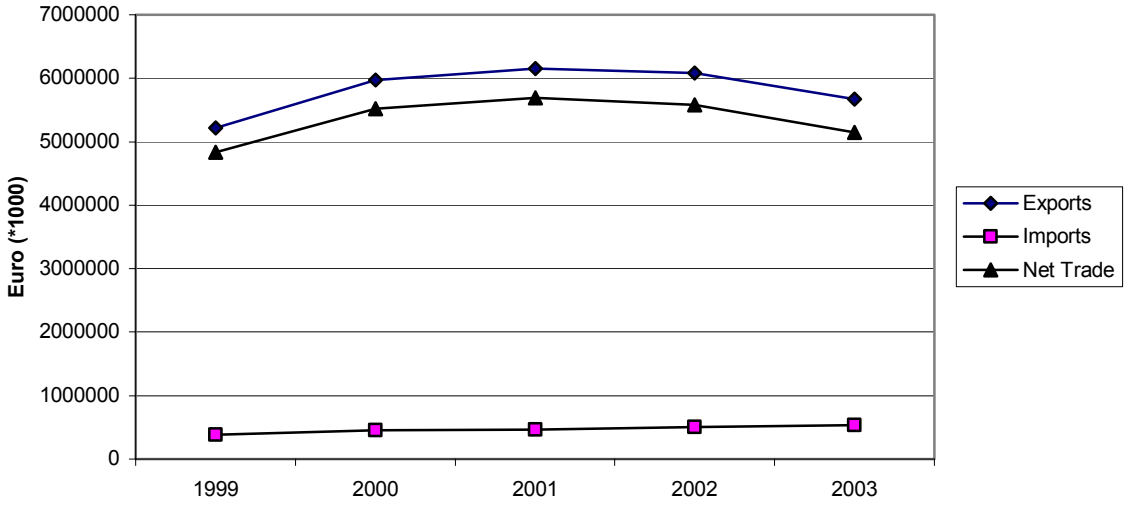

Figure 79. Trade balance for wooden furniture 1999-2003. Expressed in Euro (*1000). Source: ISTAT.

Over the period wooden furniture annually accounts for 59 volume per cent of total net trade. The quantity is slightly declining since 2000 and is approaching the level of 0.8 million ton as a combined effect of increasing imports and declining exports. The corresponding value increase of imports is plus 38 % over the period. Due to a decline in the exports since 2001 the net trade of wooden furniture has decreased from 5.7 billion Euros to 5.1 billion Euros in 2003. Wooden furniture has, however, maintained its value share of 69 % of the total value of net trade in furniture.

Approximately 55 % of both the volume (Figure 80) and value (Figure 81) of **wooden furniture exports** from Italy are over the period directed to the EU-market where Germany, France and UK are the most important buyers. A slightly decreasing trend is, however, recorded for these countries as a group. The market share of Germany is declining from 19 % to 13-14 % whereas for UK a small increase from 5 % to 8 % is taking place from 1999 to 2003. On the other hand, the French share remains more or less unchanged at the level of 12 % eventually with some weak indications of increase. Even for the other EU countries - except from Belgium, the Netherlands and Austria - an increase is recorded during the period. North America, and in particular the United States, is the most prominent importer of Italian wooden furniture with a market share of 16 % (in both volume and value terms) after an increase with a few per cent during the period. With that figure North America is now the largest importing region of Italian wooden furniture passing even Germany that previously was the most important importer.

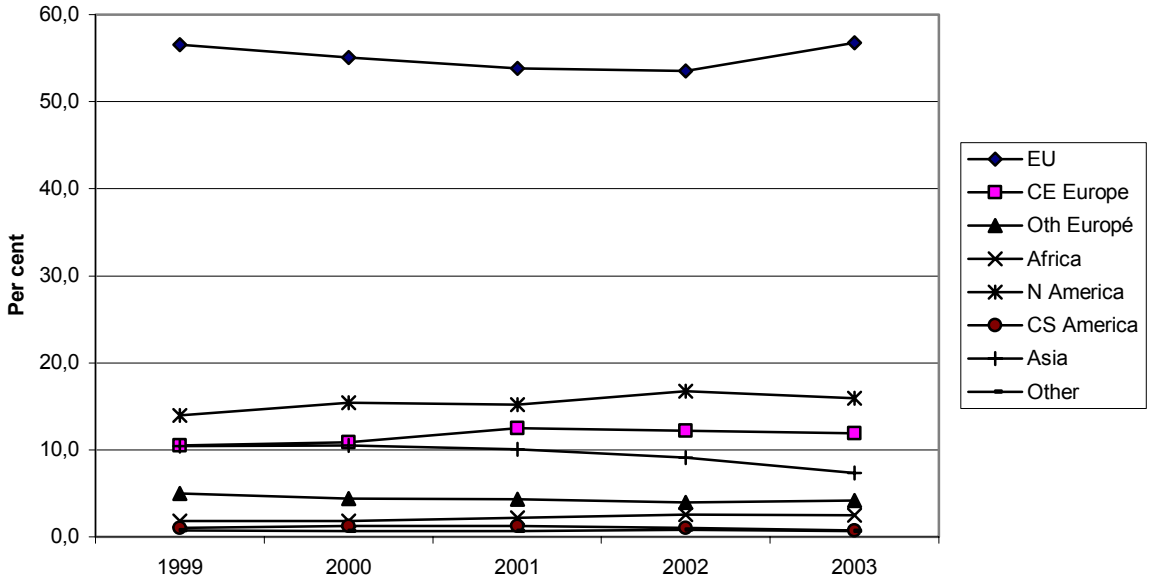

Figure 80. Wooden furniture exports by region 1999-2003 (Volume distribution. Source: ISTAT.

Regarding exports to Central and Eastern Europe Slovenia and Croatian show upward trends whereas the others maintain their shares. As a whole CE Europe accounts for approximately 12 % (both in volume and value terms) of the Italian exports of wooden furniture. Especially, the Russian Federation accounts for about 4 volume per cent of the Italian wooden furniture exports with some indications of increased demand. The Russian Federation is almost a sole buyer of Italian products in Other Europe where the value share of Italian exports has been between 5-6 % over the period.

In Asia the Italian exports are mainly directed towards the markets in the Middle East. The development of these countries is individual; Saudi Arabia and Israel are decreasing their shares, while the United Arab Emirates is increasing somewhat. In general, there is a decreasing trend in exports to the Asian countries from an earlier level of 10 % towards 7-8 % at the end of the period (The volume and value percentages are within the same range). Africa[34] shows an increasing demand but the volumes are at very low level and the volume and value shares within the range of 1-2 %. The exports to all Central and South America as well as to other countries, even tropical are even more limited.

[34] Essentially countries south of the Mediterranean; Egypt, Libya and Marocco.

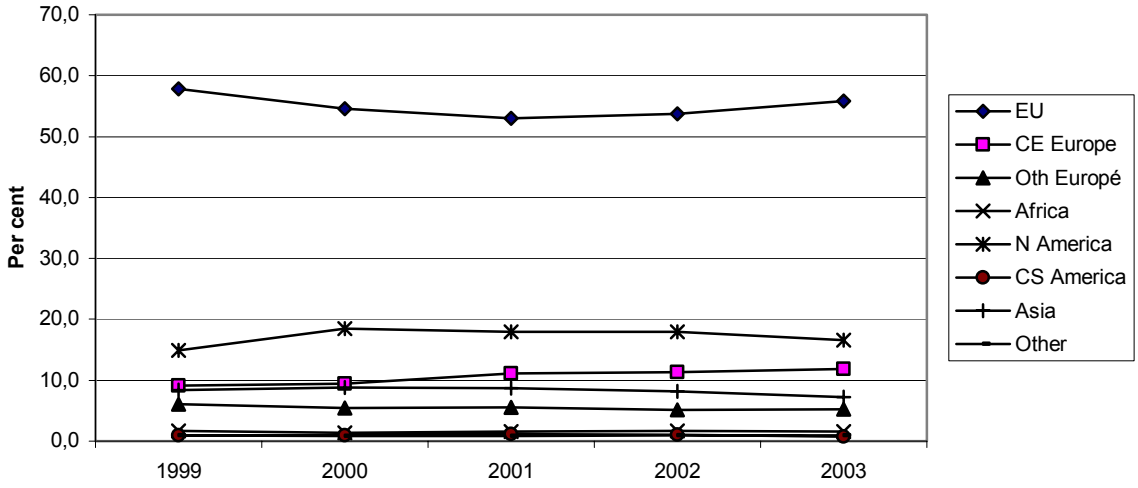

Figure 81. Wooden furniture exports by region 1999-2003 (Value distribution). Source: ISTAT.

Considering the exports from the **sub-sector of wooden furniture exports** (Figure 82) it is obvious that main body in terms of volume share consists of Wooden furniture NES; i.e. wooden furniture for dining and living rooms and for shops. However, one can recognize a considerable downward trend for this sub-sector from about 35 % down to 28 % of the total sector in 2003. Measured in value terms this sub-sector is the second largest approaching the level of 30 % at the end of the period after a slightly declining trend since 1999 (Figure 83). In value terms the largest sub-sector is constituted of 'Seats and wooden frames' accounting for almost 40 % of the exports. Their volume share ends up to 24 % in 2003 having experienced an increase with a couple of per cent over the period similar to the value share increase.

For the sub-sector 'Parts' and 'Kitchen' an increasing tendency is recorded, respectively, while 'Office' and 'Bedrooms' display each a weak decreasing trend over the period. Interestingly, the distribution of value shares is strongly dominated by 'Wooden furniture NES' and 'Seats and wooden frames' accounting together for 70 % of the wooden furniture exports of Italy the remaining shares being relatively evenly distributed between 'Kitchen', 'Office', 'Bedrooms' and 'Parts'. Regarding the corresponding volume share for the two dominant sub-groups in value terms the dominance of these two in volume terms is somewhat less, only 52 % at the end of the period. Also noticeable is that the remaining sub-sectors' volume shares differ a lot. In particular, one should observe the large and increasing volume share of 'Parts'; about 20 % of the Italian wooden furniture exports in 2003.

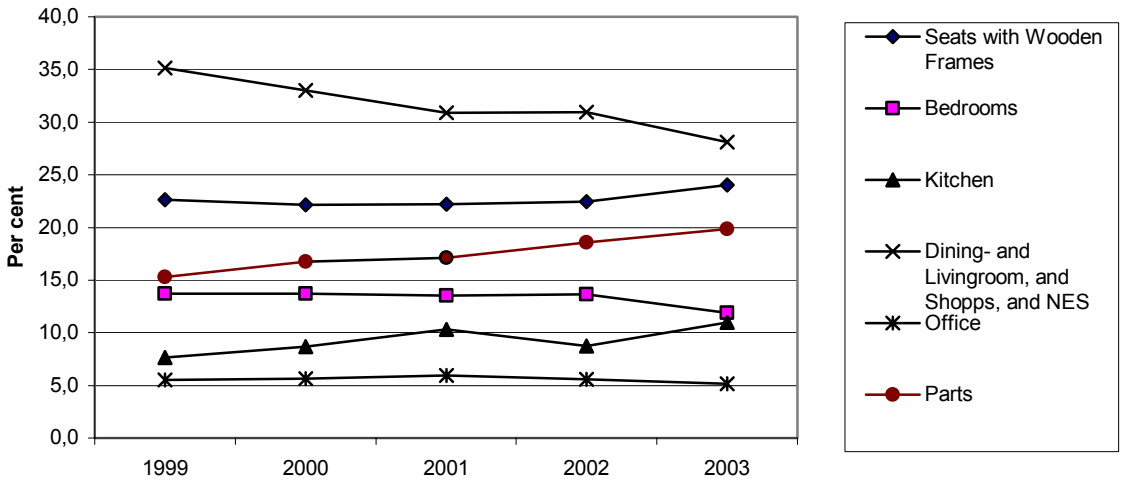

Figure 82. Wooden furniture exports by sub-group 1999-2003 (Volume distribution). Source: ISTAT.

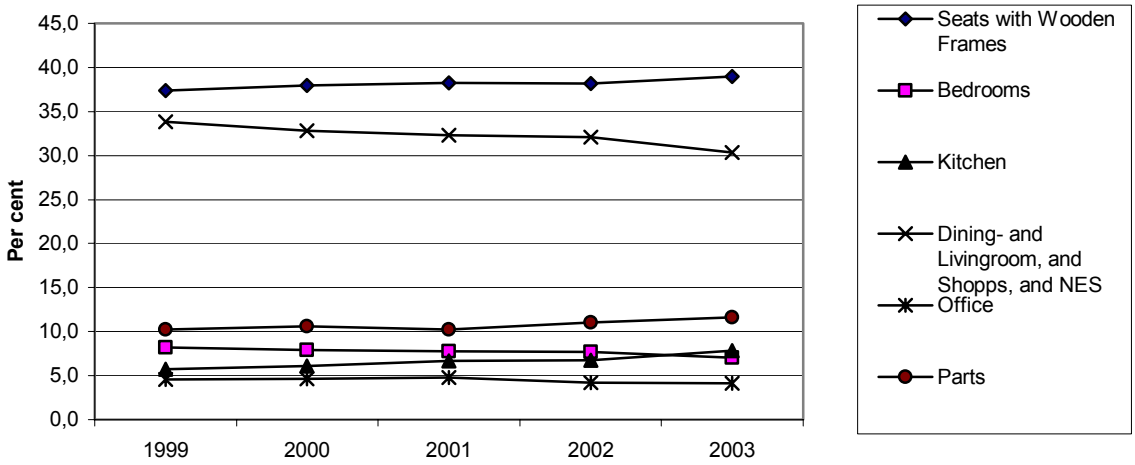

Figure 83. Wooden furniture exports by sub-group 1999-2003 (Value distribution). Source: ISTAT.

Regarding the **imports of wooden furniture** Central and East Europe have a significant volume share at constant level of 46 % of the Italian imports over the period (Figure 84). The value share is considerably lower, 37 %, which level, however, was reached in 2003 after a period of a continuous increase from 30 % in 1999 (Figure 85). The most important suppliers in CE Europe are Romania with a relatively constant share of 15 %, and Poland and Slovenia that record a strong increase, however, each from low levels. For the first time in history, in 2003 Central and East Europe passed the EU as the largest supply region expressed in value terms. Since 1999 the value share of the EU has been declining from the level of 45 % to 33 %. It is remarkable that during the period imports from France has declined from 16 % to 3 %, whereas for Austria a considerable increase is recorded from 4 % to 12 %. Even the share of Germany is decreasing but only marginally, two per cent during the period, to 6 %. Other EU-countries displaying an increasing trend are Spain and Denmark with 4 % and 6 % each

towards the end of period. The imports from the remaining EU are small and at a constant level during observation period.

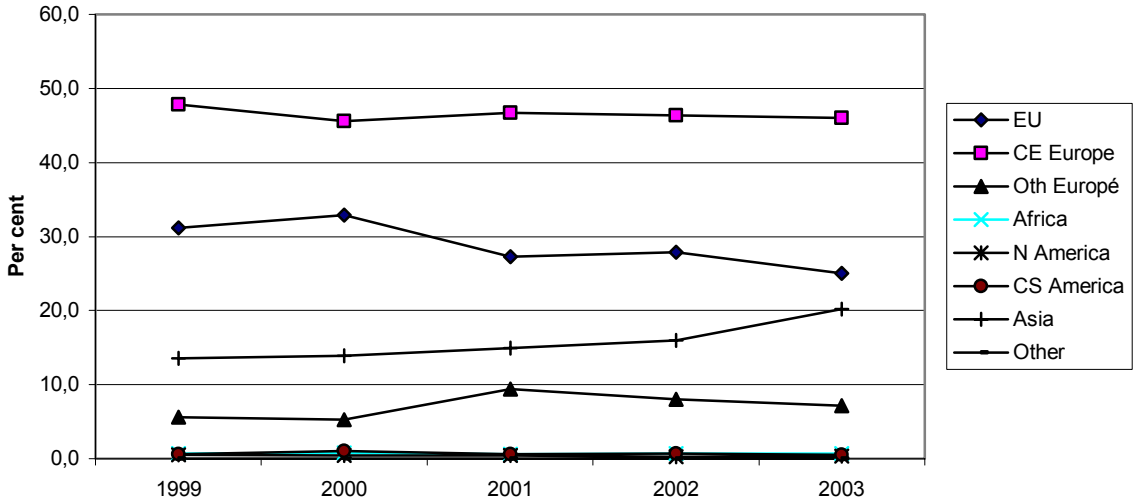

Figure 84. Wooden furniture imports by region 1999-2003 (Volume distribution). Source: ISTAT.

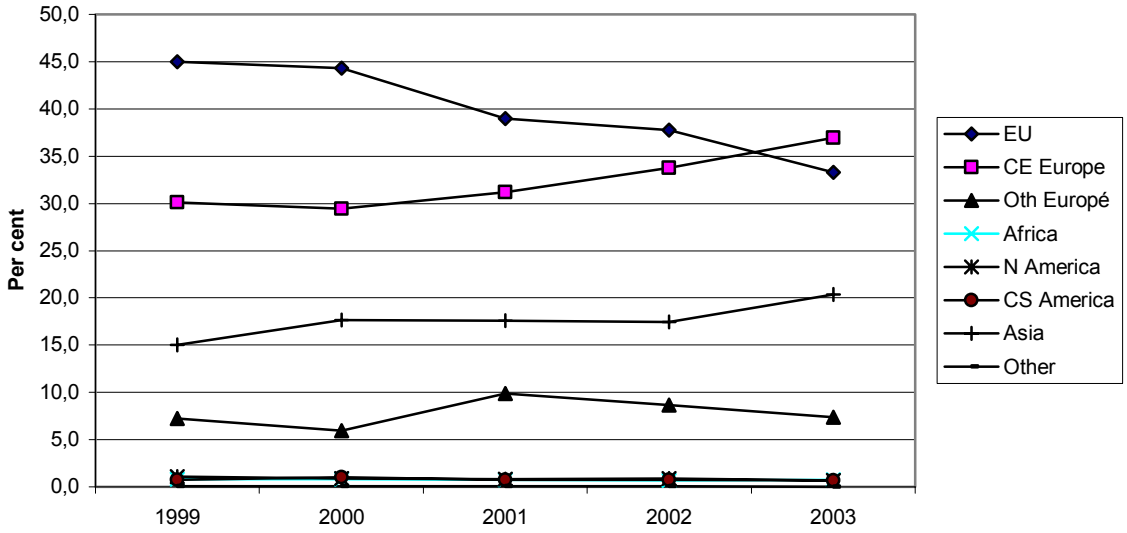

Figure 85. Wooden furniture imports by region 1999-2003 (Value distribution). Source: ISTAT.

Other Europe including the Russian Federation is of somewhat minor importance for the Italian imports of wooden furniture. Both the volume and value shares are within the range of 5 to 10 % over the period.

Another region showing a positive development is Asia for which both the volume and value shares have improved considerably. In 2003 approximately 1/5 of the Italian imports were sourced in Asia and especially from China that alone counted for 9 % in 2002. Other Asian supplier countries with lower shares are Indonesia, Taiwan and Viet Nam. For the total imports from Asian an increase of 5 % is recorded during the period.

Besides the imports from China, Indonesia, Taiwan and Viet Nam the imports from other tropical sources as well as from North and Central and South America, and the other regions are insignificant.

A review of the **imports of wooden furniture by sub-groupings** confirms that 'Dining-, and Living room, etc., wooden furniture' constitutes the largest volume share of the imports and has increased from about 35 % to 47 % (Figure 86). Previously the sub-group 'Parts' dominated the imports with a 40 % volume share but over the period it has lost market shares and ends up with 34 % in 2003. However these two sub-sectors strongly dominate imports and account for 80 % measured in volume terms. The other sub-sectors are obviously smaller and with decreasing market shares with the exception that 'Seats with Wooden Frames' that may have indication of trend break in 2003.

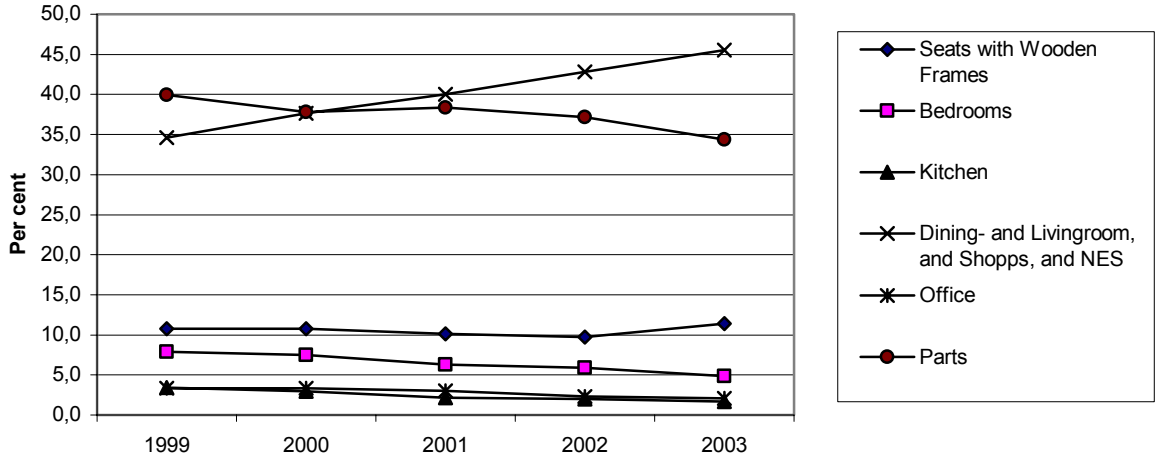

Figure 86. Wooden furniture imports by sub-group 1999-2003 (Volume distribution). Source: ISTAT.

In contrast to the two sub-sectors dominating the imports when measured in volume terms there is in value terms only one dominating sub-sector - 'Dining-, Living room, etc., wooden furniture' (Figure 87). Obviously, this sub-sector has been approaching the level of 50 %, however, with signs of saturation in 2003. 'Parts' as less value-added semi-finished products should accordingly be of less value but still the sub-sector obtains the second largest market share at a stable level of 22 to 23 % over the period. The third largest sector in value terms is 'Seats with wooden frames' that in 2003 displays a shift towards almost 20 % of the imports. The remaining sub-sectors 'Bedrooms', 'Kitchen' and 'Office' then seem to have lost market shares and each of them is approaching the level of 5 % in 2003.

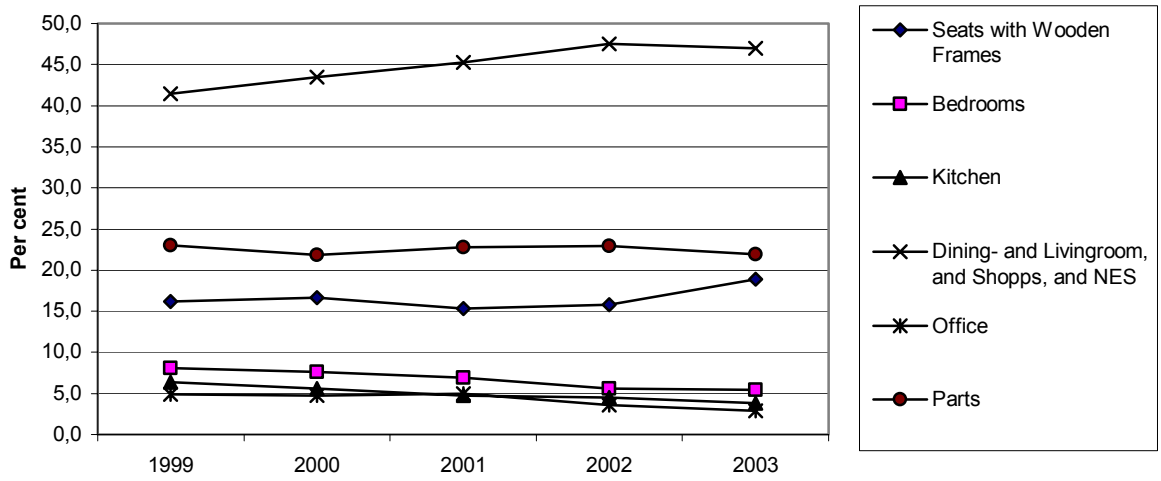

Figure 87. Wooden furniture imports by sub-group 1999-2003 (Value distribution). Source: ISTAT.

To sum up, the exports of furniture and wooden furniture have remained relatively stable but imports are increasing (see figure 72 and 73). Even the shares of wooden furniture of the total exports and imports of furniture, respectively, have remained stable over the period (Figure 88).

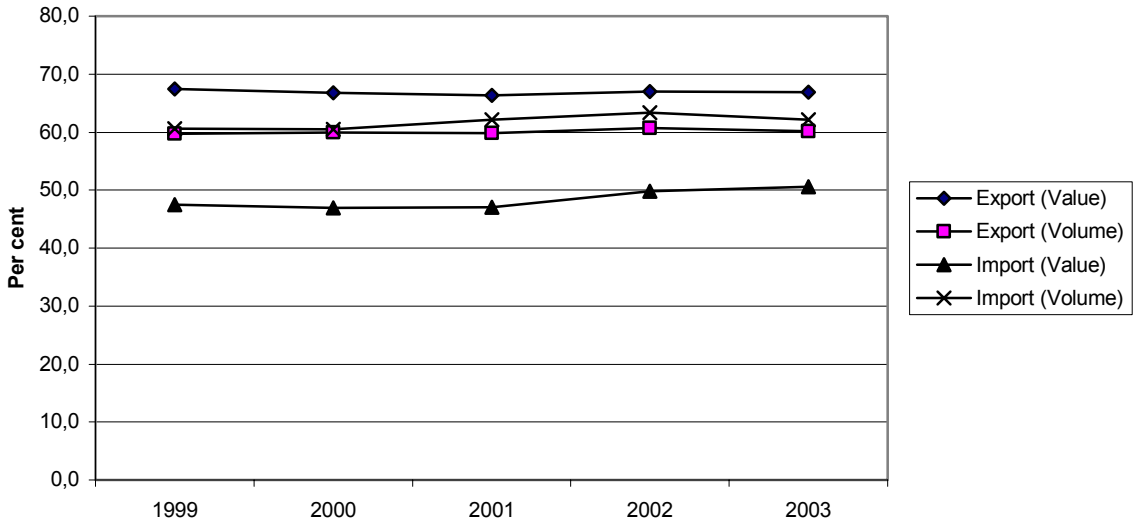

Figure 88. The share of wooden furniture of total furniture with respect to exports and imports, respectively, in value and volume terms 1999-2003. Source: ISTAT.

The share of wooden furniture is within the range of 60 to 70 % of the total furniture exports expressed in volume and value shares, respectively. Regarding the imports of wooden furniture their value share of the total furniture imports increased slightly to 50 % during the period. Interestingly the value share of exports is at a higher level than the volume share of exports – roughly from 3 % to 5 %. Regarding the imports the situation is the opposite and the difference somewhat larger up to 10-15 %; partly because the 'Parts' constitute a considerable share of the wooden furniture imports to Italy. It is furthermore noticeable, that 'wood' as a raw material can be incorporated in furniture that finally is not classified as 'wooden

furniture'. Therefore, these reported levels should be considered minimum levels for exports and imports.

Subsequently, as can be seen (Figure 89) the net trade of wooden furniture and furniture, respectively, has turned slightly down during the period as a result of increasing imports and constant or somewhat decreasing exports as shown in earlier sections. As a consequence of these small changes in the trading patterns the share of net trade for wooden furniture has been at constant level (69 %) over the period. A decline to 5.1 billion Euros is recorded for the net trade of wooden furniture in 2003 when the total of furniture amounted to 7.4 billion Euros.

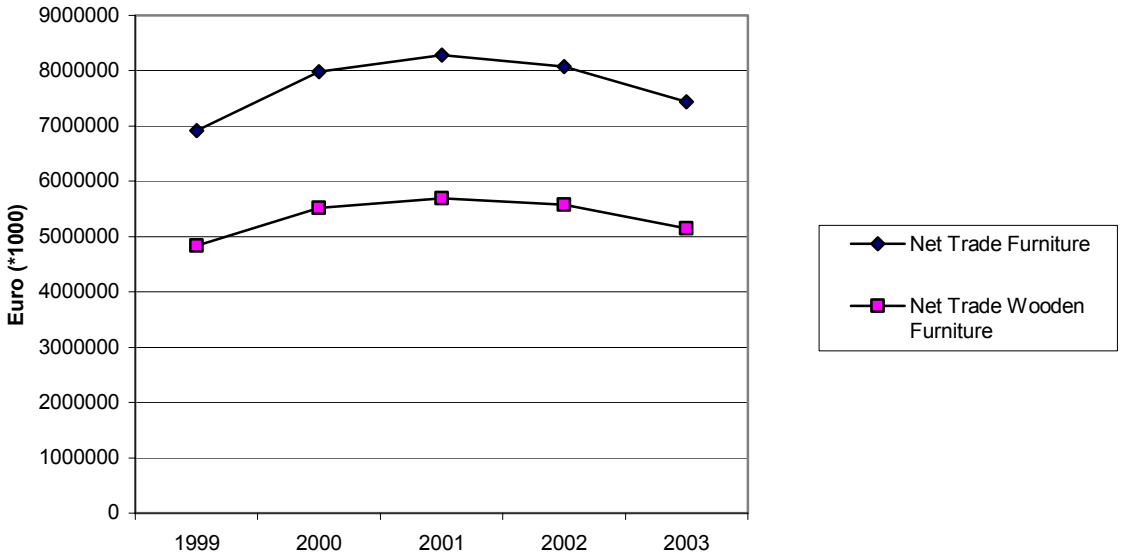

Figure 89. Net trade of furniture and wooden furniture 1999-2003. Source: ISTAT.

As a concluding remark it can be pointed out that the trade with the internal EU market is after all experiencing changing trade patterns while at the same time there are also indications of an increasing trade with Central and Eastern Europe and Asia where Russia and China are important partners. Subsequently, increasing import shares are recorded for these suppliers with respect to volume shares relative to value shares. In fact, this may be an expression of an increasing competition from the low cost countries. Especially regarding the EU trade the Italian exports are declining slightly whereas the imports from the EU-market experience a more considerable drop. Moreover, it is to observe that North America is a substantial market that gradually is becoming even more important destination for the Italian furniture exports. The Italian trade in furniture with developing countries and tropical countries is very limited.

3.2.10 Conclusions

The trade section of various products is rounded up focusing solely on the trade in year 2003. Exports and imports of all wood and wood products including wooden furniture are represented in value terms in order to enable a comparison between products of various value-adding degrees (Table 7). Italy, as many other countries with limited raw material sources, fully utilizes its production capacity by importing the raw material to its industry and produce value added products for its trading partners. This is also the case for the trade of forest products. While being a net importer of raw material (roundwood, sawnwood, plywood and

veneer), with minor negative trade balances, the wood products industries in Italy manufactures for the domestic and export market highly value added products such as wooden furniture and mouldings. The total net imports of wood and wood products (including wooden furniture) amounts to 2.3 billion Euros, but considering only wooden furniture, highly value-added wood products, Italy turns to be a net exporter at the level of 5.1 billion Euro in 2003. This confirms the importance of value added processing in creating positive trade balance for a country. In the Italian case, the contribution made by the wooden furniture industry is obviously essential for wood industry in general.

Table 7. Exports, imports and net trade of wood and wood products including wooden furniture in 2003. Expressed in Euro (*1000). Source: ISTAT.

	Exports	**Imports**	**Net Trade**
Industrial Roundwood	4666	417650	-412984
Sawn Wood	94747	1639882	-1545135
Veneer	102627	246685	-144058
Plywood	127385	221001	-93616
Builders Joinery	195361	237814	-42453
Flooring	46835	166781	-119946
Mouldings	189419	12057	177362
Millwork	270505	340417	-69912
Wood and Wood Products, Tot	1031545	3282287	-2250742
Wooden Furniture	5675258	528952	5146306

Considering the relation non-tropical – tropical for exports and imports, respectively, of different primary processed products the (value) shares of tropical species are relatively low, approximately 15 %, for industrial roundwood, sawnwood, and veneer exports. For veneer imports and plywood the recorded shares of tropical species are around 25 %. For exports and imports of secondary processed products, respectively (Table 8) the shares of tropical species are very low, only few per cent. For flooring there is no data on tropical or non-tropical uses. On the other hand, it is verified that sourcing for flooring is primarily taking place in Africa but also in Asia to a considerable degree.

Table 8. The share of exports and imports, respectively, of each primary and secondary wood product with distribution into non-tropical and tropical products in 2003. Source: ISTAT.

	Exports		**Imports**	
	Non-trop. %	Trop. %	Non-trop. %	Trop. %
Industrial Roundwood	89,3	10,7	84,4	15,6
Sawnwood	86,9	13,1	88,7	11,3
Veneer	85,4	14,6	73,6	26,4
Plywood	76,0	24,0	74,4	25,6
Builders' Joinery	95,6	4,4	99,4	0,6
Mouldings	94,1	5,9	95,8	4,2
Millwork	98,3	1,7	99,4	0,6
Wood and Wood Products, Total	92,0	8,0	88,5	11,5

Therefore, it is reasonable to consider that deliveries originating from these regions consist of tropical wood to a large extent even if they are not recorded as 'tropical'. This kind of reasoning might be valid even for other wood and wood products including wooden furniture from 'tropical sources'. Therefore, one may conclude that probably the tropical volumes recorded and displayed here should be seen as minimum levels.

As is pointed out, the imports of tropical products to Italy are dominated by Africa that shows a slight decline over the recent years ending up in a market share of 65 % in 2003. Other important sourcing regions for tropical wood products are Asia and Central and South America that recently have gained increasing market shares and cover together ¼ of Italian imports in 2003. The imports decrease slightly from the EU but increase from the Central and East Europe, and to some extent from Other Europe.

The imports of non-tropical wood products to Italy originate to a large degree from Europe - 82 per cent of Italian imports. Sourcing from the EU tends, however, to decline while it is increasing from Central and East Europe that accounts to ¼ of Italian imports. North America is also an important but declining source of non-tropical. Africa, Asia and Central and South America together obtain about 10 % of the imports to Italy in 2003; a figure slightly higher than the market share of North America.

The exports of tropical and non-tropical wood products from Italy are primarily directed to the EU, Other Europe and Central and East Europe. Altogether almost ¾ of both tropical and non-tropical exports, respectively, cover these sub-regions. The EU's share is slightly more than 50 % in 2003 with a decreasing tendency for non-tropical. The tropical exports to the EU account for almost 60 %, at constant level. In contrast, non-tropical wood exports to CE Europe tend to increase somewhat approaching 12 % in 2003, the tropical being at a constant level of around 10 %. In Other Europe tropical and non-tropical gain market shares approaching 8 % and 5 %, respectively. Also the exports to North America are substantial. In 2003 the market shares for tropical and non-tropical were around 12 % for each. For exports to Asia slightly similar market shares to North America are recorded both tropical and non-tropical in 2003.

Finally, the tendencies indicated are based on short time series over the years 1999 to 2003 (in some cases only from 2001 to 2003). Therefore, the given interpretations should be considered indicative and dealt with care. Longer time series may result in different conclusions.

3.2.11 Comments on trade statistics

The available data sources for the analysis of Italian trade are: (i) ISTAT (National Institute of Statistics; Foreign trade statistics), (ii) FAO (Food and Agricultural Organization of the United Nations; FAOSTAT Forestry) and (iii) EFI (European Forest Institute; EFI-WFSE Forest Products Trade Flow Database). A survey of these databases confirms that only ISTAT applies Combined Nomenclature (CN8) 8-digit level that is instrumental and most suitable for the products analyzed in this study (for statistics of trade flows, periodicity and timeliness see Appendix 8). While categorizing of various products in the study is not given on beforehand, it is convenient to apply the classification used by Federlegno-Arredo, the Italian branch organization of woodworking and related industries. Another advantage of ISTAT data is that the data is most recent and published on both monthly and annual basis. FAO data is published on annual basis with a delay of one year, whereas EFI data, also on annual basis, is delayed with two years. Furthermore, access to EFI is not publicly open, only for its members. In contrast, FAO and ISTAT are open source databases.

ISTAT data is given in value (Euro) and volume (kg/ton) terms[35]. For some products also other measures may be given, for example in m^3. In order to make comparisons between ISTAT and FAO/EFI databases following exchange rates Euro vis-à-vis US $ is applied (1999) 1.0653, (2000) 0.9232, (2001) 0.8956, (2002) 0.9454 and (2003) 1.1321 (Federal Reserve Statistical Release, 2005).

While comparing ISTAT (Appendix 9, for coding see Appendix 8) and FAO (Appendix 10, for coding see Michie and Wardle, 2005) it is obvious that FAO database consists of larger aggregates; FAO publishes data on industrial roundwood (coniferous, non-coniferous and tropical), and sawnwood (coniferous and non-coniferous), veneer (total) and plywood (total). Moreover, there are also other discrepancies than different aggregation levels of data. ISTAT uses 8-digit level whereas FAO (and also EFI) apply 6-digit level. It is not always a straightforward procedure to aggregate from more detailed levels to more aggregate due to small but not unimportant differences in product categories that do exist. Because ISTAT incorporates most recent information (as preliminary during the 1st year, then final) into database it is the most up-to-date information available. FAO, in turn, receives in due course data from ISTAT for incorporation into the FAOSTAT database. After the most recent update, received by FAO, ISTAT may still due to various reasons be forced to correct and update information on its database but the last update may perhaps not be dispatched to FAO. Apart from these limitations the correspondence between ISTAT and FAO seems to be acceptable. However, there is a certain tendency that discrepancies in volume terms are larger than in value terms, one example observed is Plywood. Differences may depend on the conversion factors used by FAO.

Comparison of ISTAT (Appendix 10) and EFI (Appendix 11) reveals that EFI database constitutes of industrial roundwood (coniferous, non-coniferous including tropical), sawnwood (coniferous, non-coniferous including tropical), veneer (non-tropical and tropical), plywood (non-tropical and tropical), builders joinery and wooden furniture. There is a good correspondence with ISTAT regarding values for industrial roundwood, veneer and plywood but the volume measures differ from the ISTAT volumes. For the value measures of sawnwood, in particular, there are large differences between the ISTAT and EFI. Similarly, for builders' joinery and wooden furniture the data on value and volume differs considerably depending on the institute reporting. An explanation to these discrepancies is that EFI data on builders' joinery includes flooring but ISTAT data does not. Moreover, the definition of flooring is somewhat wider in ISTAT compared with EFI. As to wooden furniture the discrepancy is due to EFI's reporting that does not include furniture parts in this product group, while ISTAT does[36].

Regarding the availability and reliability of the data on Italian wood and wood products including wooden furniture ISTAT is reporting the most appropriate data suitable for country studies like the present one. The data quality is the highest available and categorizing of the products is commonly used in Italian woodworking industry and furniture industry. FAO and

[35] FAO and EFI present value in US $ and volume i ton. For some products ton is converted into m^3 (for conversion factors see Michie & Wardle, 2005)

[36] A serious source for discrepancies between the data published by various large data producers, e.g. FAO, EFI and ISTAT, seems to be different customs procedures and declarations in exporting and importing countries. For example, logs exports from Cameroon to Italy amounted to 62 000 m^3 according to supply country, while ISTAT reports imports from Cameroon to 82 000 m^3 in 2003. Besides, differences in classification, standards, etc., discrepancies reported may depend, among others, on cheating in one way or another in order to avoid import duty payments, etc. It is, therefore, necessary to take concerted action to harmonize classification systems and enforcement, as well as to combat illegal trade in line with the intentions of the FLEGT-initiative.

EFI databases in this context can be considered complementary sources of trade data. With respect to the discrepancies verified it is necessary to take actions in order to minimize these differences by enhanced co-operation and updating routines.

Moreover, it should be noticed that the EU provides DG Trade – Expanding Export Desk through internet (http://export-help.cec.eu.int/). It is a convenient tool for exporters to Italy and the EU to seek and use information on trade issues. The desk contains trade statistics of the EU countries and also information on import tariffs, non-tariff measures, etc.

Additional to ISTAT trade statistics, information on Italian wood, construction and furniture industry can be obtained from economic indicators (Appendix 12). These indices are reported with only 1 to 3 months time delay (monthly/quarterly)[37]. However, it is noticeable that some of the industry related indices are based on data from enterprises with more than 20 employees. As reported here, the share of enterprises employing less than 20 persons is rather high within Italian wood and furniture industries. Therefore, the indices should be interpreted with care (and for this reason such indices are excluded in Appendix 12).

3.3 An EEA-wide review of tropical timber trade

3.3.1 Coniferous Industrial Roundwood

The exports of coniferous industrial roundwood show an increasing trend ending up to more than 12 million cubic meters in 2002. Most of the exports are internal trade within the European Economic Area (EEA) (Appendix 13.1).
The imports have increased strongly up to 2002 to the level of 35 million m^3, which from then has been retained. Roughly, a half of the imports are internal EEA-trade and the other half from the Area of former USSR. Also imports from Other Europe occur to substantial degree.
EEA-area is a net importer, recently in 2002 at the level of 18 million m^3.

3.3.2 Non-coniferous Industrial Roundwood

The exports of non-coniferous industrial roundwood vary from 7 to 8 million m^3 per annum. The internal EEA-trade accounts for the major part but quantities are delivered to all the other destinations of which Other (not-tropical) is the most prominent (Appendix 13.2).
Imports are then more distributed than exports and experiencing considerable shifts. Only 6.8 million m^3 of almost 35 million m^3 is internal EEA-trade in 2002. The Area of former USSR has become the main supplier but sourcing occurs even from Eastern Europe, Other Europe, NAFTA and Other (non-tropical) developing countries.
The net imports of EEA are at the level of 21 million m^3 in 2001 and 2002 which level also was reached in 1998.

3.3.3 Coniferous sawnwood

The exports of coniferous sawnwood vary around 27 million m^3 but reached the level of 30 million m^3 in 2002 when almost 25 million m^3 was internal EEA-trade (Appendix 13.3). The remaining quantity was mainly supplied to Other (non-tropical) developing countries, Eastern Europe and NAFTA.
Of the imports totalling in over 30 million m^3 annually over the period clearly more than a half is internal EEA-trade at the level of 20 million m^3. Most of the external volumes are

[37] With respect to coverage characteristics, periodicity, timeliness, etc., of indices see ISTAT www.istat.it.

sourced from the area of former USSR and Eastern Europe but even some minor quantities from NAFTA.
The EEA is net importer but the net imports show a weak tendency to decrease and amounted in 2002 approximately to 3 million m^3.

3.3.4 Non-coniferous sawnwood

The exports of non-coniferous sawnwood have remained at the level of 3.5 million m^3 since 1999 of which volume 2.3 million m^3 in 2002 was internal EEA-trade Appendix 13.4). At the end of the period the second largest destination was Other (non-tropical) developing countries followed by Japan, Asian Tigers, NAFTA and East Europe.
Imports in turn reached in 2001 the level of 9 million m^3 but have experienced a slight decline in 2002. The internal EEA-imports amounted to 1.9 million m^3 in 2002, a level displaying well even the previous import quantities within the EEA. In general, the sourcing from outside EEA seems to increase over the period. The imports from Other Europe, Eastern Europe and the area of former USSR tend to increase while NAFTA and Asian Tigers keep track of relatively constant volumes. Other developing countries include Africa, which is a large supplier to Italy.
During the period the EEA's net imports show a tendency to increase from 5 million m^3 towards 6 million m^3.

3.3.5 Non-tropical veneer

The exports of non-tropical veneer show a weakly declining trend over the period approaching the level of 0.4 million m^3 in 2002 (Appendix 13.5). Approximately 2/3 of the exports occur within EEA. Among the external destinations are foremost Eastern Europe, NAFTA and Asian Tigers but all the other regions are also supplied with smaller volumes.
Regarding the imports these lie at a constant level just below 0.6 million m^3 during the period. The EEA-imports amount to about 0.27 million m^3 per annum and the remaining quantity is mainly distributed between Eastern Europe, Other Europe and NAFTA. For Eastern Europe and Other Europe a weak increase is recorded while NAFTA has experienced a decline. Some smaller volumes are then sourced from the area of former USSR, Other developed and Other (non-tropical) developing countries. Trade in veneer is generally local.
Due to decreasing exports from EEA the negative net trade in non-tropical veneer is increasing but at low level.

3.3.6 Tropical veneer

The exports of tropical veneer have annually been about 0.14 million m^3 (Appendix 13.6). Over the period the internal EEA-exports have experienced a slight decline down to around 0.08 million m^3 in 2002. The external exports are directed towards all regions among which especially NAFTA is a substantial delivery region showing an increasing demand.
At the end of the period the total imports are approaching the level of 0.3 million m^3 of which 0.17 million m^3 originate from Other Europe. This region's exports have developed relatively well. Even the internal EEA (transit) imports have increased and account for the second largest part of the imports, approximately 0.07 million m^3 in 2002. Other sourcing regions are Other developed countries, NAFTA and Asian Tigers.
The increasing imports relative to stable exports have resulted in a slightly increasing trade deficit of tropical veneer at the level of 0.15 million m^3.

3.3.7 Non-tropical plywood

The exports of non-tropical plywood are approaching the level of 2 million m^3 towards the end of the period (Appendix 13.7). Of this quantity approximately 1.7 million m^3 was internal EEA-exports in 2002. The EEA-exports show a weak increasing trend over the period. The remaining quantities are relatively evenly distributed to all the other demand regions.
The import volume is twice as large as exports; i.e. almost 4 million m^3. The major part, 1.6 million m^3 in 2002 was sourced internally within EEA. Other prominent sourcing regions are Other Europe, the area of former USSR and Eastern Europe; all showing a slight increase. Moreover, there are imports from Asian Tigers, Japan, and NAFTA at relatively constant or weakly decreasing levels.
The trade deficit of EEA has during the past three years remained on the level of 2 million m^3.

3.3.8 Tropical plywood

The exports of tropical plywood show a declining trend amounting roughly to just marginally more than 0.4 million m^3 in 2002 (Appendix 13.8). Almost entire export trade occur within EEA that in 2002 was responsible for a trade volume of 3.9 million m^3. The exports to outside of EEA are of limited importance.
The imports have steadily remained at around 1.1 million m^3 but in 2002 a decline occurred. This decline is caused by decreasing supply from Asian Tigers; the region from where the major part of EEA-imports originate. Another important source is the internal EEA (transit) trade that also decreased slightly in 2002 compared with earlier levels. The remaining quantities are sourced from Other Europe and Other (non-tropical) developing countries.
The EEA's net imports show a declining trend and end up in the level of 0.7 million m^3 in 2002.

3.3.9 Wooden manufacture

Wooden manufacture constitutes of following sub-groups: Builders joinery, Cask & Cooperage, Decorative wood, Improved wood, Packing cases, Tools & turned wood and Wood simply shaped. Here, the trade in wooden manufacture is treated as an aggregate, apart from builders' joinery for which a specific review is presented.
The exports of wooden manufacture over the period are more than 5 billion US $ of which about 4 billion US $ within EEA (Appendix 13.9). The remaining 1 billion US $ is relatively evenly distributed between the other demand regions.
Imports have increased from 6 billion US $ in 1997 and approaching the level of 7 billion US $ towards the end of the period. The imports within EEA have remained stable but a certain increase has occurred on the imports from outside EEA. Sourcing is taking place in all regions but Eastern Europe, Other (non-tropical) developing countries and Asian Tigers are the most substantial suppliers to EEA.
The increasing imports have resulted in a larger trade deficit for EEA, in 2002 at the level of 1.8 billion US $.

3.3.10 Builders' joinery (a sub-group of wooden manufacture)

The exports of builders' joinery account for roughly half of the total export value of wooden manufacture. The exports have experienced a slight decline during the period. The value of internal EEA-exports was about 2.3 billion of the total of 2.7-2.8 billion US $ in 2002 (Appendix 13.10). Thus, the exports to outside EEA are relative small. The main demand is from Eastern Europe, the area of former USSR and NAFTA but even from the other regions to some degree.

The imports show a weak increasing trend at the level of 3 billion US $. Approximately 2/3 is internal EEA-imports while Eastern Europe and Asian Tigers are the main suppliers from outside of EEA.
The trade balance of builders' joinery is negative at the level of 0.4 billion US $.

3.3.11 Wooden furniture

Wooden furniture consists of following sub-groups: Seats with wooden frame, Wooden bedroom furniture, Wooden furniture NES, Wooden kitchen furniture and Wooden office furniture.

Exports of wooden furniture, considered here an aggregate, amount roughly to 14 billion US $ per annum over the observation period (Appendix 13.11). The internal, slightly decreasing EEA-exports lay annually at the level of 10 billion US $. Of the remaining part NAFTA is responsible for one half, the other half being evenly distributed between other regions.
The imports indicate a weak upward trend at the level of 11 billion US $. About 8 billion US $ consist of internal EEA-trade, which shows a weaker development compared with the total imports. Especially, Eastern Europe but even Asia Tigers, to some degree, dominate the external imports even if substantial quantities are also sourced from other regions except from Japan and Other developed countries.
Due to expanding external imports relative to stable external exports the trade balance has drastically worsened from hardly 0.4 billion US $ in 1999 to 1.1 billion US $ in 2002; i.e. within a few years period.

3.3.12 Seats with wooden frame (a sub-group of wooden furniture)

The exports of seats with wooden furniture as well as imports tend to increase approaching the level of 4 billion US $ in 2002 (Appendix 13.12). Besides internal EEA-exports amounting to 2.9 billion US $ at the end of the period a substantial demand region is NAFTA that alone dominates among the external export destinations for seats with wooden furniture.
More than one half of the total imports of 4 billion US $ constitutes of internal EEA-trade. The external sourcing is from all regions but especially Eastern Europe dominates and seems to increase its deliveries towards the year 2002.
The increase in external imports has resulted in doubling of the net imports at the level of 0.8 billion US $ by 2002.

3.3.13 Wooden bedroom furniture (a sub-group of wooden furniture)

The exports of wooden bedroom furniture have declined slightly since 1999 from 2 billion US $ with a weak recovery towards the end of the period (Appendix 13.13). This is obviously a result of weakening internal exports within EEA that ended up in 1.4 billion US $ in 2002 whereas the external exports have more or less remained at a constant level over the period. Among external destinations NAFTA seems to dominate.
For the imports almost a similar picture to the exports could be drawn with the exception that the external trade; i.e. external imports account for a larger part than in the case of exports. The clearly dominating supplier into EEA is Eastern Europe followed by Other Europe and also supplies from the area of former USSR. Some quantities are bought from NAFTA, Asian Tigers and Other (non-tropical) developing countries.
The trade balance, in general, is weakly negative but a doubling has taken place during the period and the net imports are approaching the level of 0.14 billion US $ in 2002.

3.3.14 Wooden furniture NES (a sub-group of wooden furniture)

The exports of wooden furniture NES have experienced a weak slowdown in mid-period but a slight recovery is recorded for 2002 (Appendix 13.14). This sub-group measured in export value is the largest of all sub-groups within wooden furniture. During the period the export value of wooden furniture NES amounts roughly to 5.8-5.9 billion US $ per annum. The internal EEA-exports amount to 3.6 billion in 2002 after a decline since 1999 when 4.0 billion US $ were exchanged in the internal trade. The external exports are dominated by NAFTA even if all the other regions are supplied from EEA.
Also the import value of wooden furniture NES is pending below 6 billion US $ annually of which roughly one half consisted of internal EEA-imports in 2002. Earlier the share of internal imports has been somewhat higher due to lower external imports. By 2002, however, the external imports have expanded, mostly from Eastern Europe, Other Europe, the area of former USSR and Other (non-tropical) developing countries while imports from Asian Tigers have remained at a constant but substantial level over the period.
The expanding imports have resulted in tripling of the negative trade balance for wooden furniture NES that amounts to almost 0.6 billion US $ in 2002

3.3.15 Wooden kitchen furniture (a sub-group of wooden furniture)

The exports of wooden kitchen furniture are the second smallest expressed in export value. The value of exports have been around 1.6 billion US $ with an increasing trend towards 1.7 billion US $ at the end of period (Appendix 13.15). A large part, more than 1.3 billion US $, of the exports are internal within EEA. Regarding external exports there is an increasing tendency to supplies in the area of former USSR and NAFTA but even the other regions are supplied.
The imports have experienced a slowdown in mid-period but a recovery to the same level at the end of the observation period, around 1.1 billion US $, than in 1991 is recorded also for 2002. The internal imports amount to more than 1 billion US $. The external imports are marginal coming mainly from Eastern Europe and Asian Tigers.
Among all sub-groups of entire wooden furniture sector the wooden kitchen furniture trade has generated a positive and over the period increasing trade balance that is approaching 0,28 billion US $ in 2002.

3.3.16 Wooden office furniture (a sub-group of wooden furniture)

The exports of wooden office furniture are the smallest among all sub-groups. During the period a decline, mainly because of decreasing internal EEA-exports, has occurred towards the level of 0.9 billion US $ (Appendix 13.16). In 2002 the internal EEA-exports amounted roughly to 0.5 billion US $. Among the external destinations NAFTA is substantial demand region followed by the former USSR, Eastern Europe, Other (non-tropical) developing countries, etc.
Annual imports have remained steadily below 0.9 billion US $ until 2002 when a drop down to and even below 0.8 billion US $ occurred. This shift was due to decreased internal imports within EEA while the external imports seem to have remained at a constant level over the period. In 2002 the internal imports amounted to 0.6 billion US $. External imports originate from all regions but Eastern Europe is clearly a dominant supplier.
The trade balance is slightly positive but declining since 2000.

3.3.17 Conclusions

In the following section the focus is on the EEA trade of wood and wood products. The goal is to summarize the EU-wide trade of various wood and wood products and highlight the trade patterns based on statistics from the perspective of vertical wood value chains. The focal starting point for reasoning with respect to traded quantities across the entire product palette is the roughly evaluated trade data from 2002.

The review of the EEA trade in wood and wood products reveals that this region is a net importer of all kind of **primarily processed products**. In volume terms the total net imports of EEA amounted in 2002 to over 50 million m^3 of which around 40 million m^3 consisted of industrial roundwood; i.e. sawlogs, pulpwood, etc., evenly distributed between coniferous and non-coniferous species. The net imports of approximately 3 million m^3 coniferous sawnwood and 6 million m^3 non-coniferous sawnwood in 2002 constitute the next largest product group with trade deficit. The net imports of the remaining primary products amounted roughly to 0.2 million m^3 for non-tropical veneer and tropical veneer, respectively, and to 2 million m^3 for non-tropical plywood and 0.7 million m^3 for tropical plywood. Apparently, expressed in relative terms the net trade constitutes of 80 % of less (non-) processed wood products, about 18 % of sawnwood and some per cent of veneer and plywood.

Considering the total imports of EEA, around 115 million m^3 in 2002, over 60 % (70 million m^3) of the imports consisted of industrial roundwood, evenly distributed into coniferous and non-coniferous species. Coniferous sawnwood amounted to 30 million m^3 (26 %) and non-coniferous 9 million m^3 (8 %). About 4 million m^3 (3 %) was non-tropical plywood and 1.1 million m^3 (1 %) of tropical plywood. The remaining volume was of non-tropical and tropical veneer 0.6 million m^3 and 0.3 million m^3, respectively.

Typically, the import share of the internal EEA imports of coniferous industrial roundwood and sawnwood is rather high, approximately 50 % or more whereas of non-coniferous products only 1/3 or 1/4 is sourced within this region. External supply is from the area of the former USSR, Eastern Europe and to some degree from Other Europe. Considering non-tropical veneer and plywood imports the share of internal imports decreases below 50 % and is approaching 1/3 or 1/4 when tropical veneer and plywood is studied. The external supply is more diversified compared with industrial roundwood and sawnwood but large quantities are still sourced from Eastern Europe, Other Europe and USSR-region. Moreover, deliveries from Asia are considerable, especially regarding tropical plywood imports. In general, the imports of all products, except tropical plywood, show either an increasing trend or remain at constant level over the period studied.

As to the total exports of EEA, approximately 53 million m^3 in 2002, about 12 million m^3 (23 %) and 7.5 million m^3 (14 %) constituted of non-coniferous and coniferous industrial roundwood, respectively. Coniferous sawnwood exports amounted to 27 million m^3 (51 %) and non-coniferous sawnwood to 3.5 million m^3 (7 %). Around 2 million m^3 (4 %) non-tropical plywood was exported compared with 0.4 million m^3 tropical plywood. About 1 % of the total exports consisted of veneer exports of which 1/3 of tropical veneer.

The exports of EEA are directed to a considerable degree towards the internal market. There is a tendency that the share of external exports of non-coniferous and tropical products is somewhat higher compared with the coniferous and non-tropical products' share. Also, the more processed primary product, the greater share of external exports is delivered to more developed countries outside EEA. In general, the exports of various products show an

increasing trend or remain at constant level, apart from non-tropical veneer and tropical plywood.

With respect to **semi-processed wooden products** the EEA is also net importer except wooden kitchen and office furniture that show a slightly positive trade balance. In 2002 the scope of total net imports was 2.9 billion US $, of which wood manufacture, including among others builders joinery, amounted to 1.8 billion US $; i.e. approximately 62 % of the value of total net imports of semi-processed wood products. Wooden furniture group accounted for about 1.1 billion US $ corresponding to 38 per cent of total net imports in semi-processed product.

The total imports of semi-processed products were in 2002 roughly 20 billion US $ of which 35 %, 7 billion US $ constituted of wood manufacture products, and 65 %, 13 billion US $ of wooden furniture. Within the former group builders joinery accounts for 44 % of the import value being clearly the dominating sub-group. Regarding wooden furniture products the 'seats with wooden frame' and 'wooden furniture NES' dominated with import values amounting to about 4 and 6 billion US $, respectively. For wooden 'bedroom furniture', 'kitchen furniture' and 'office furniture' the recorded import values in 2002 were within the range of 0.8 to 1.7 billion US $.

The internal EEA imports comprise in value terms, typically, 50 % or more of the total imports of wooden manufacture and wooden furniture, respectively. Eastern Europe is important external sourcing region for all sub-products of wood manufacture and furniture even if supplies from all regions take place.

The total exports of EEA amounted to almost 20 billion US $. Wood manufacture exports account for 30 %, around 5 billion US $, of the total exports. The sub-group builders' joinery contributes roughly 50 % to the wood manufacture exports. Approximately over 70 per cent of the exports, 14 billion US $, constitute then of wooden furniture. Within this group the dominating sub-groups are 'seats with wooden frame' and 'wooden furniture NES' amounting to 4 and almost 6 billion US $ each. Then, as in the case of imports, wooden furniture for bedrooms, kitchen and offices records export values within the range of 0.8 to 1.7 billion US $.

Regarding the exports of semi-processed wood products, roughly 3/4 of wood manufacture products (incl. builders' joinery) and 2/3 of wooden furniture in value terms are traded within EEA. In general, the exports of these two aggregated product groups have remained at constant level, possibly with a weak decreasing trend. However, sub-groups as builders' joinery, wooden bedroom furniture, wooden furniture NES and especially wooden office furniture display decline, while seats with wooden frame and wooden kitchen furniture tend to increase slightly. The external exports are directed towards all regions among which NAFTA is a substantial demand region, especially with respect to sub-groups seats with wooden frame and wooden furniture NES.

4. Conclusions

The team of consultants has carried out the present study having the terms of reference in mind. Accordingly, also local agencies, institutions and the sectors in focus have been consulted in the course of work. Various degree of engagement from external partners, and consequently, degree of data availability are reflected also in the results. The data sources for the country analysis have been mainly ISTAT complemented with data from FAO and EFI, as well as information acquired through interviews on enterprises and organisations. It was concluded that data from ISTAT were most appropriate regarding reliability and timeliness for a country study like the present one. For the European wide review of trade with wood and wood products the data from EFI was used. The EFI database was the only easily available and accessible source for highlighting the trade patterns in the European scale and even globally for the large set of products targeted in this study.

As to the product analysis reflecting imports, exports, production and apparent consumption it turned out to be difficult, if not impossible, to acquire data on production (and apparent consumption) for the semi-processed products up streams along the value chain at the high level of detail than was planned[38]. The domestic output could only be reviewed for the entire woodworking sector and furniture sector, respectively, with the exception of flooring sector. Regarding the products studied conclusions are as follows:

- Coniferous industrial roundwood: Italy is a considerable net importer importing 2/3 of the apparent consumption and with substantial share of imports originating from the EU. Consumption is at the stable level of over 3 million m^3 per annum.
- Non-coniferous industrial roundwood: Italy is importing half its apparent consumption with a substantial share of import supply from the EU and Eastern Europe. Consumption has decreased over the period and is approaching the level of 4 million m^3 in 2003. Notice that almost all sourcing of tropical industrial roundwood that accounts for 26 % of total imports of non-coniferous roundwood occurs from Africa.
- Coniferous sawnwood: Italy is highly dependent upon imports of coniferous sawnwood in order to fulfil its demand. About 90 % of the apparent consumption annually around 6-7 million m^3 is imported mainly from the EU and to some, but slightly increasing degree from Central and Eastern Europe.
- Non-coniferous sawnwood: At the stable level of over 2.5 million m^3 per annum apparent consumption is secured by imports of 2 million m^3, mainly and to an increasing degree from Central and Eastern Europe, and to a slightly decreasing degree from North America. Even sourcing from the EU amounts to a substantial quantity. Interestingly, tropical sawnwood supply from Africa declines and increases from Asia slightly. However, Africa is still the dominating source of tropical sawnwood that accounts for 10 % to 15 % of the imported non-coniferous sawnwood.
- Veneer: Italy is net importer with a relatively high self-sufficiency rate. About 70 % of consumption of, on average, 0.6 million m^3 annually is based on own production. Approximately 2/3 of imports at constant annual level consist of non-tropical veneer to a considerable degree sourced from the EU, Central and Eastern Europe, and North America. Imports of tropical veneer are mainly from the EU but deliveries from North America tend to gain market shares while Asia is loosing its shares. Even supplies via Central and Eastern Europe tend to increase whereas smaller African volumes show a high variation across the years studied.

[38] (see Appendix 14 for a proposal how to obtain production data).

- Plywood: Consumption has steadily increased reaching the annual volume of 0.8 million m^3 in 2003. To an increasing degree the demand is covered by imports. The rate of self-sufficiency was low, around 30 %, in 2003. On average, 2/3 of imports in 2003 consisted of non-tropical supplies at constant annual level, mainly from the EU and Central and Eastern Europe, and to some degree from Central and South America. Imports of tropical plywood have increased with 50 % from 1999 to 2003. Africa has become a dominant sourcing region together with the EU, which however, has experienced a considerable decline of market shares. Supplies from Central and South America tend to increase while Asian shares decline.
- Builders' joinery – Other builders' joinery other than windows and doors: In general regarding builders' joinery Italy is net importer; i.e. the imports are slightly higher than the exports and recently there has been a tendency of faster increasing imports leading to larger trade deficit. Specifically, the sub-group other builders' joinery accounts for ¾ of the import value of builders' joinery that is approaching 0.25 billion Euros in 2003 after a period of steady increase. The corresponding, relative stable value share of exports is below 50 % of the annual exports of builders' joinery.
- Builders' joinery – Windows: Of builders' joinery import value windows account for about 15 %. With respect to window trade Italy is also a net importer. The imports of coniferous and tropical windows account for about 90 % and around 5 %, respectively, of the window imports in value terms. The window imports of tropical wood have increased remarkably from Central and Eastern Europe, which region accounted for almost 90 % of market shares. During the period supply from Africa has totally collapsed.
- Builders' joinery – Doors: The door imports account for approximately 10 % of the total builders' joinery imports. Italian exports and imports are balancing relatively well each other and therefore with respect to door trade Italy gets a yearly shifting status of being net importer or net exporter. The import share of door of tropical wood is low, around 5 % at constant level over the period. Approximately 50 % of imports originate from Asia. Imports from Central and South America have experienced a considerable drop but show recently an upward trend in line with imports from the EU.
- Flooring: The net imports tend to increase approaching the level of 0.17 billion Euros in 2003 or over 9 million m^2 that fills roughly 2/3 of the domestic consumption. The supply is from a number of regions where the EU and Africa are the most noticeable sources. However, the market share of the latter tends to decrease whereas increasing shares are recorded for Central and Eastern Europe. Asia maintains constant market shares over the period.
- Mouldings: Italy is net exporter but over the recent years the imports show a declining trend approaching 0.03 billion Euros in 2003. With constant level of exports this means that the positive trade balance tends to weaken. Asia as the outmost sourcing region is loosing steadily market share while the EU remains as the second largest supplier. In contrast, supplies from Central and Eastern Europe show a considerable increase towards 2003.
- Millwork: Italy is net importer. The annual imports amount, on average, to 0.35 billion Euros. The imports of tropical millwork is extremely limited, only 1 % of the total imports. Recently up to 70 % of imports (value) originate from Asia. Another important supply region is Africa. For the EU decreasing market shares are recorded over the period.
- Wooden furniture: Italy is one of the leading producers and exporters of furniture in the world. The annual production amounts to 23-24 billion Euros of which over 10

billion Euros is annually exported. Over 50 % of exports are directed to the EU. Other demand regions are North America, Central and Eastern Europe and Asia. The most important products exported are seats with wooden frame and furniture for dining and living rooms that together account for almost ¾ of the export value of furniture.

As a member state of the EU Italy is applying common tariffs and other non-tariff measures agreed at the EU level and internationally. Currently the import duties and other measures for imports of wood and wood products from third countries are relatively limited, and were mainly recorded for wood-based panels such as veneers but especially plywood products of tropical wood. For combating illegal logging in client countries and illegal trade Italy is involved in FLEGT initiative through the EU co-operation.

The development of legislative framework for procurement of wood and wood products in progress at the national, but even at the EU level and internationally, will have a considerable impact on trading activities domestically and abroad. The changing institutional rules for transactions and the rule enforcement, as well as the common valuation of the environment are probably leading to renewed approaches while sourcing goods and other services from the domestic forests. In the long run the output of wood for industrial processing may decrease in Italy leading to even larger need of imported wood. In order to enable supplies from tropical sources, and elsewhere, it will be necessary to establish delivery systems that secure the sustainability of wood resources in the client countries based on their socio-economic conditions. Only meeting the needs of the people of client nations overseas will guarantee the sustainable use of resources for the benefit of the local people.

Regarding the EEA-trade review some highlights are the following:

- The region is a net importer of all kind of primary processed wood products
- Typically, the import share of the internal EEA imports of coniferous industrial roundwood and sawnwood is rather high, approximately 50 % or more whereas of non-coniferous products only 1/3 or 1/4 is sourced within this region.
- Considering non-tropical veneer and plywood imports the share of internal imports decreases below 50 % and is approaching 1/3 or 1/4 when tropical veneer and plywood are taken into account.
- With respect to semi-processed wooden products the EEA is also net importer except from wooden kitchen and office furniture that show a slightly positive trade balance.
- The internal EEA imports comprise in value terms, typically, 50 % or more of the total imports of wooden manufacture and wooden furniture, respectively. Eastern Europe is important external sourcing region for all sub-products of wood manufacture and furniture even if supplies from all regions also take place.

As concluded earlier, there are discrepancies between the data published by various data producers, e.g. FAO, EFI and ISTAT depending on different classification, etc. Also, a serious source for such discrepancies seems to be different customs procedures and declarations in exporting and importing countries. Furthermore, the discrepancies reported may depend, among others, on classification errors as well as illegal actions. It is, therefore, necessary that the involved in trade activities take concerted action to harmonize the classification systems and the enforcement, as well as to combat illegal trade in line with the FLEGT-initiative.

Also, related to data availability (see also Anon., 2001) for country studies like the present one more focus should be put on developing methods for data gathering from small and medium size enterprises because these especially within woodworking industries form the main body of firms and thus are responsible for considerable branch output.

The study, while focusing on the Italian timber market and especially tropical timber, has identified segments, from which the information on tropical timber is not sufficient in order to enable a comprehensive description of tropical timber issues in Italy. For example, we have identified following drawbacks:

(i) lack of reliable statistics on forest cover, removals and use of timber, and in particular the use of tropical timber in several sub-branches of primary and secondary processing,

(ii) lack of production statistics on the use of substituting and/or complementary raw materials within the above named sub-branches as well as in the construction of residential and non-residential buildings, civil engineering, etc.

To enable a comprehensive description of tropical timber issues along the wood value chain it is therefore necessary to carry out more detailed analyses, for example, by implementing the approach proposed by the research team (Appendix 14) for obtaining more information from the enterprises or through an extended questionnaire procedure.

As the EEA will be a substantial net importer of tropical wood and wood products in the future it is proposed that similar country studies should be conducted in several EU states with considerable imports from the tropics.

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Walkenhorst, P. & Fliess, B., 2003. Non-tariff measures affecting EU exports: Evidence from a complaints-inventory. OECD, Economic department. Working papers no. 373.

Cited websites

CATAS, Research and development institute and laboratory for testing furniture and wood-based products - http://www.catas.it
EU Generalised System of Preferences - http://trade-info.cec.eu.int/doclib/docs/2005/february/tradoc_121409.pdf
EU Harmonised Standards, Council Directive 89/106/EEC - http://europa.eu.int/comm/enterprise/newapproach/standardization/harmstds/reflist/construc.html
EU Market Access Database - http://mkaccdb.eu.int
EU Taxation and Customs Union, TARIC Consultation - http://europa.eu.int/comm/taxation_customs/dds/cgi-bin/tarchap?Lang=EN
Euroconstruct - http://www.euroconstruct.org/
G8 Action Programme on Forests http://www.g8.utoronto.ca/foreign/forests.html and http://www.g8.gc.ca/g8_fight_corr-en.asp
International Tropical Timber Organisation - http://www.itto.org.jp/live/index.jsp
Promolegno http://promolegno.com
Promosedia, International Chair Exhibition organizer http://www.promosedia.it/index.php?l=eng
The Forest Dialogue - http://research.yale.edu/gisf/tfd/
World Wide Fund for Nature http://wwwf.dk/242000c

Data sources

European Forest Institute (EFI) - http://www.efi.fi/efidas
Food and Agricultural Organisation (FAO) http://www.fao.org
National Insitute of Statistics (ISTAT) - http://www.istat.it
Organization for Economic Co-operation and Development (OECD) - http://www.oecd.org/home/0,2605,en_2649_201185_1_1_1_1_1,00.html
The EU Help Desk - http://export-help.cec.eu.int/

Other webpages for information

Association Technique Internationale des Bois Tropicaux - http://atibt.com/en/
CRESME, Research Centre - http://www.cresme.it/english.asp
Federlegno-Arredo, Economic Studies Centre - http://www.federlegnoarredo.it/servizi/studien/default.asp
Federazione Italiana delle Communitá Forestalia - http://www.federforeste.org/
Furniture Industry Research Institute - http://www.csilmilano.com/

Important Organizations

Builders Joinery Association
Edilegno
Foro Bonaparte
65 (20121) Milano
Tel: 39/02806041
Fax: 39/0280604392
E-mail: edilegno@federlegno.it
www.federlegno.it/associazioni/edilegno/default.asp

Center for Economic, Sociological and Building Research
Cresme Ricerche Spa
Via Fogliano 15
00198 Roma
Tel + 39 6 854 36 23 fax +39 6 841 57 35
E-mail: cresme@it
www.cresme.it

Consortium Real Wood
Consorzio Vero Legno
22066 Mariano C.se (Como – Italia)
Via C. Mauri 5 GH
Tel: 39/031751012
Fax: 39/031751036
E-mail: verolegno@verolegno.it
www.verolegno.it

Furniture Association
Assoarredo
Foro Bonaparte
65 (20121) Milano
Tel: 39/02806041
Fax: 39/02 80604392
E-mail: assoarredo@federlegno.it
www.federlegno.it/associazioni/assarredo/default.asp

Italian Association of Wood and Furniture Industries
UNITAL
Via delle Sette Chiese
146 (00145) Roma
Tel: 39/0651607664
Fax: 39/0651435535
E-mail: aniem@aniem.it
http://confapi.org/unital/

Italian National Association of Private Construction Companies
ANCE
Via Guattani
00161 Roma
E-mail: info@Ance.it
www.ance.it

Italian Timber Agents Association
Agelegno
Centergrosso-Blocco 22
40050 Funo di Argelato
Tel: 39/05189018011
Fax: 39/0518901833
E-mail: info@agelegno.it
www.agelegno.it

Italian Traders Association
Fedecomlegno
Via Toscana 10
00187 Roma
Tel 39/064200681
Fax 39/0642012236
E-mail: fedecomlegno@federlegno.it
www.federlegno.it/associazioni/fedecomlegno

Italian Wood Federation
Federlegno-Arredo
Foro Bonaparte
65 (20121) Milano
Tel 39/02806041
Fax 39/0280604392
E-mail: fla@federlegno.it
www.federlegno.it

Panel Association
Assopannelli
Foro Bonaparte
65 (20121) Milano
Tel 39/02806041
Fax 39/0280604395
E-mail: assopannelli@federlegno.it
www.federlegno.it/associazioni/assopannelli/default.asp

Sawmills Association
Assolegno
Foro Bonaparte
65 (20121) Milano
Tel: 39/02806041
Fax: 39/0280604392
E-mail: assolegno@federlegno.it
www.federlegno.it/associazioni/Assolegno/default.asp

Woodpromoting organization
promo_legno
Piazza del Duomo 20
20122 Milano
Tel: 39/0287909127
Fax: 39/02877319
E-mail: milano@promolegno.com
www.promolegno.com

Interviewed Enterprises

ALPINA PARQUET spa
Processing/Manufacturing: Flooring
Contact person: Mr. Peter Pierri
Tel: 39/0174622111
Fax: 39/0174622230
E-mail: p.pierri@alpinaparquet.com
www.alpinaparquet.com

BASSANO PARQUET srl
Processing/Manufacturing: Flooring
Contact person: Mr. Oscar Zonta
Tel: 39/0424220942
Fax: 39/0424220942
E-mail: commerciale@bassanoparquet.com
www.andreattalegnami.com

BELLOTTI spa
Trading/Processing/Manufacturing: Industrial Timber
Contact person: Mr. Angelo Bianchi
Tel: 39/031777222
Fax: 39/031771148
E-mail: info@bellottispa.com
www.bellottispa.com

CIMA srl
Processing/Manufacturing: Plywood
Contact person: Ms. Lorenza Dal Soglio
Tel: 39/0498840833
Fax: 39/049767309
E-mail: cima-srl@libero.it

CORA' DOMENICO E FIGLI spa
Trading/Processing/Manufacturing: Timber for industrial uses
Contact person: Dr. Domenico Corà / Mr. Sergio Corà
Tel: 39/0444372711
Fax: 39/0444372771
E-mail: info@coralegnami.it
www.coralegnami.com

FORMER INDUSTRIA PER L'ARREDAMENTO srl
Processing/Manufacturing: Furniture
Contact person: Mr. Stefano Fumagalli
Tel: 39/031780252
Fax: 39/031781030
E-mail: former@former.it
www.former.it

GIACOMO SERALVO E FIGLI
Trading: Timber for industrial uses
Contact person: Mr. Alberto Seralvo
Tel: 39/0362343590
Fax: 39/0362343622
E-mail: seralvo@seralvo.com
www.seralvo.com

IMOLA LEGNO spa
Trading: Timber for industrial uses
Contact person: Mr. Stefano Canizza / Mr. Marco Russo
Tel: 39/0542630411
Fax: 39/0542640418
E-mail: info@imolalegno.com
www.imolalegno.com

NENCINI E MASINI srl
Processing/Manufacturing: Wooden profiles for frames
Contact person: Ms. Mariza Nencini
Tel: 39/0571668138
Fax: 39/0571663258
E-mail: info@ne-ma.it
www.ne-ma.it

PAGANONI IMPORTLEGNO spa
Trading: Industrial timber
Contact person: Mr. Giampiero Paganoni
Tel: 39/029268131
Fax: 39/0292160956
E-mail: info@paganoniimportlegno.it
www.paganoniimportlegno.it

PATERNO LEGNAMI srl
Trading/Processing/Manufacturing: Timber and flooring
Contact person: Mr. Tullio Paterno
Tel: 39/0445330144
Fax: 39/0445330187
E-mail: info@paternolegnami.it
www.paternolegnami.it

PROFILWOOD srl
Processing/Manufacturing: Wooden profiles for frames
Contact person: Ms. Biasiotto Alessandra
Tel: 39/0422773320
Fax: 39/0422885294
E-mail: profilwood@lazzaris.it
www.lazzaris.it

STILE PAVIMENTI LEGNO spa (Trestina – PG)
Processing/Manufacturing: Flooring and furniture
Contact person: Mr. Lorenzo Onofri
Tel: 39/075864761
Fax: 39/0758647630
E-mail: stile@stile.com
www.stile.com

TABU spa
Processing/Manufacturing: Veneer
Contact person: Mr. Andrea Tagliabue
Tel: 39/031714493
Fax: 39/031711988
E-mail: at@tabu.it
www.tabu.it

TRANSTADIO spa
Trading: Timber for industrial uses
Contact person: Mr. Sergio Colombo
Tel: 39/0362239158
Fax: 39/0362224072
E-mail: transtadio@transtadio.it

Interviewed Organizations

Italian Timber Agents Association
Agelegno
Contact person: Mr. Giogio Pieraccini – President of Agelegno
Tel: 39/05189018011
Fax: 39/0518901833
E-mail: info@agelegno.it
www.agelegno.it

Italian Traders Association
Fedecomlegno
Contact person: Lara Malucelli – Secretary of Fedecomlegno
Tel 39/064200681
Fax 39/0642012236
E-mail: fedecomlegno@federlegno.it
www.federlegno.it/associazioni/fedecomlegno

Ministero delle Attività Produttive – Area per l'internazionalizzione
Contact person: David Ascarelli
Tel: 39/0659932669
Fax: 39/0659932464
E-mail: polcom8@minicomes.it
www.minicomes.it

Appendices

Appendix 1. Terms of Reference

APPENDIX C-1 OF CEM-CFI(XXXIV)/4

REVIEW OF THE TIMBER MARKET IN TWO SIGNIFICANT TROPICAL TIMBER IMPORTING COUNTRIES [ITTO Yokohama Action Plan, Section 3.1, Goal 1, Action 5]

1. The Proposal

It is pertinent that a study be conducted to gain an insight into the current supply and demand status of the timber market in two significant tropical timber importing countries not previously examined by ITTO, and the opportunities in these markets for ITTO exporters. It is proposed that, subject to the agreement of two countries, international/national consultants be engaged to carry out a study in close association with local agencies, institutions and the private sector.

2. Terms of Reference

I. Compilation and Review of Information

The consultant(s) shall:

1. Collect, analyse and present data on imports, exports, production and consumption of timber identifying trends for tropical hardwoods, softwoods and temperate hardwood in the two countries. This analysis should cover industrial roundwood, sawnwood, veneer, plywood, builders joinery, flooring, mouldings, millwork and wood furniture. Any existing studies should be integrated in this analysis.
2. Identify the sources of statistical data used in (1) above and provide an assessment of the reliability and timeliness of this data.
3. Review information on trends in tropical timber trade in the region(s) in which the countries are located.

II. Tropical Timber Consumption Analysis

4. For the main consumption centres, report on trends in the last 3-5 years in consumption of the products noted in (1) above and identify the consumption trends for tropical hardwood products relative to other timbers and place such trends in a regional context.
5. For each of the consumption centres, and for the countries as a whole, identify and report on the end-use distribution for each tropical timber product referred to in 1 above.
6. Analyse factors affecting competitiveness of tropical timber including identification of the significant products (timber, other materials, etc.) with which tropical timber competes.
7. Analyse and report on current import tariffs, product specifications and quality requirements in these timber markets and their implications and opportunities for ITTO exporters.
8. Identify possible non-tariff barriers in the two countries for timber imports and any particular impacts on tropical timber.
9. Survey the perceptions/views of the private sector on likely future trends in the tropical timber markets of the countries studied.
10. Present preliminary findings/analysis to respective countries at the end of the data collection phase.

III. Final Reporting

11. Prepare a preliminary report for the consideration of the Secretariat and present a final report to the Committee on Economic Information and Market Intelligence.
12. If deemed appropriate, present the results of the study at the ITTO Annual Market Discussion and prepare an article for possible publication in ITTO's Tropical Forest Update.

3. Duration

The expected duration of the pre-project is twelve months.

4. Budget: US$200,000

Appendix 2(1). Questionnaire for Enterprises

International Tropical Timber Organisation,
Yokohama, Japan
Economic Information and Market Intelligence
Project PP-A/36-149

OUESTIONNAIRE for Enterprises

Name and address of the business _____

Contact person _____ E-mail _____

Tel. _____ Fax _____

Branch of industry to which your answers to this questionnaire apply: _____

the main activity being within ☐ **Trading** **or** ☐ **Processing/Manufacturing**

1. Where are the main markets for your products, and how has the demand in those markets changed over the past five years?

	% of value	Increasing	No Change	Decreasing
Domestic market	_____	☐	☐	☐
EU market	_____	☐	☐	☐
World market (excl. EU)	_____	☐	☐	☐
	100			

Comments_____

_____

2. Have the supply-side conditions for raw materials of your business changed over the past five years?
(Please, mark with a sign in the table in each column)

	Domestic	All imported	Tropical imported
More suppliers			
No significant change			
Fewer suppliers			

Comments_____

_____

3. How have the demand conditions for your customers in your business changed over the past five years?

☐ More buyers
☐ No significant change in demand situation
☐ Fewer buyers

Comments_____

_____

4. To what extent are you changing localisation of your production units to other countries?

☐ No significant change _____
☐ Have done significant change over the last five years _____
☐ Will consider change the next five years _____

What countries are referred to ? _____

_____

Comments _____

_____

Appendix 2(2)

5. From whom do you acquire raw material(s), and approximately how big is their contribution in per cent of total value of raw material procurement?

a) imports _____ % from domestic sources _____ %

b) regarding procurement taking place abroad, for example, through subsidiaries

	Next five years	Increase	No Change	Decrease	Cannot say
- Importer/Agent	_____ %	☐	☐	☐	☐
- Wholesaler	_____ %	☐	☐	☐	☐
- Direct from producer	_____ %	☐	☐	☐	☐
- Others	_____ %,	☐	☐	☐	☐

please examplify:_____

Comments_____

_____

6. Issues of Information Technology

Do you use the internet to obtain market information? Yes ☐ No ☐

How frequently ? Less than once per month ☐ At least once per week ☐ Daily ☐

a) Do you use the internet for e-commerce? Yes ☐ No ☐

To what extent ? Less than once per month ☐ At least once per week ☐ Daily ☐

c) Do you have a web site? Yes ☐ No ☐

d) Regarding raw material procurement – is the use of internet

☐ Increasing ☐ Stable ☐ Decreasing over next five years or you ☐ Cannot say

7. The situation regarding <u>wood products' demand.</u> From **Import** sources <u>and/or</u> from **domestic** sources.

How much of your turnover is constituted by raw material cost?_____%

Products should be given as Logs, sawnwood, veneer, plywood, builders joinery, flooring, mouldings, millwork, furniture or wooden parts for furniture or others.

Product no 1: (please, specify) _____

	Tropical hardwoods				Temperate hardwoods				Softwoods			
Specify in % (add to 100)												
Share imports/domestic												
	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay
Last five years	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Next five years	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Product no 2: (please, specify) _____

	Tropical hardwoods				Temperate hardwoods				Softwoods			
Specify in % (add to 100)												
Share imports/domestic												
	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay
Last five years	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Next five years	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

- Competition from raw material substitutes: Which? _____
- Decreasing/increasing?_____
- Other trends _____

Appendix 2(3)

Comments _____
_____

8. The situation concerning market demand for your final products. *Product supply to the* ***domestic*** *market* *and/or* ***export*** *markets*

Total annual sales/quantity?_____

Product no 1: (please, specify) _____

	Tropical hardwoods				Temperate hardwoods				Softwoods			
Specify in % (add to 100)												
Share domestic/exports												
	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay
Last five years	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Next five years	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Product no 2: (please, specify)_____

	Tropical hardwoods				Temperate hardwoods				Softwoods			
Specify in % (add to 100)												
Share domestic/exports												
	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay
Last five years	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Next five years	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

- Competition from raw material substitutes: Which? _____
- Decreasing/increasing? _____

Comments_____
_____

9. In what direction(s) do you think industrial production will develop in your business during the next five years in order to maintain or improve its competitiveness?

		Fully agree				Do not agree
a)	Increased product specialisation	☐	☐	☐	☐	☐
b)	Diversification of production	☐	☐	☐	☐	☐
c)	Increased production of semi-finished components for other branches	☐	☐	☐	☐	☐
d)	Increase in just-in-time and flexible production	☐	☐	☐	☐	☐
e)	Increased use of centralised marketing organisations for prom.	☐	☐	☐	☐	☐
f)	Increased price competitiveness	☐	☐	☐	☐	☐
g)	Increased price stability	☐	☐	☐	☐	☐
h)	Increased use of tropical logs	☐	☐	☐	☐	☐
i)	Increased use of tropical sawnwood	☐	☐	☐	☐	☐
j)	of tropical veneer	☐	☐	☐	☐	☐
k)	of tropical plywood	☐	☐	☐	☐	☐
l)	of tropical Secondary Processed Wood Products (SPWP)	☐	☐	☐	☐	☐

Specify the most important ones _____

Comments_____
_____

Appendix 2(4)

10. To what extent are the following issues regarding *tropical* raw materials seen as problems in your business?

		Large problem	Minor problem	Not a problem
a)	Quality consistency	☐	☐	☐
b)	Supply regularity	☐	☐	☐
c)	Promotional support	☐	☐	☐
d)	Price competitiveness and price stability of product no 1	☐	☐	☐
e)	of product no 2	☐	☐	☐
f)	Raw material acquisition – Import in general	☐	☐	☐
g)	– product no 1	☐	☐	☐
h)	– product no 2	☐	☐	☐

Specify the most important ones _____
Raw material substitution by other wooden goods Specify _____
Raw material substitution by non-wooden goods Specify _____
Other significant problem Specify _____

Comments_____
_____

11. What are your expectations regarding the development of the supply regions of tropical wood products?

	Up	Down	
Trends for Africa	☐	☐	☐
Asia	☐	☐	☐
Latin America	☐	☐	☐

Comments_____
_____

12. What is the most important support that you want to receive from Italian public institutions?
_____

13. Please, specify and rank the following items in terms of the most important instruments of market regulation for your business (tariffs, other trade obstacles, control measures, subsidies, certification)
1._____2._____

3._____

Other measures? _____

_____

14. Ought your interest organisation, in Your opinion, to work on the following tasks in order to advance the interests of your industrial branch and its member firms – *especially having in mind the promotion for the use of tropical timber and tropical wood-based SPWP*?

		No at all	Little more	Some more	Much more
a)	Lobbying	☐	☐	☐	☐
b)	Promotion	☐	☐	☐	☐
c)	Certification	☐	☐	☐	☐

Other activities? Please, specify _____
_____

Appendix 2(5)

15. To what extent are you receiving pressure from customers and NGO:s in relation to the issue of tropical resources?

	Not at all	Some	Much
Media	☐	☐	☐
Customers	☐	☐	☐
Environmental NGOs	☐	☐	☐
Others NGOs	☐	☐	☐
Other organisations	☐	☐	☐

16. a) Total number of permanent employees? _____

b) Annual turnover (in 1000 Euros)**?**

-250	250-500	500-1000	1000-5000	5000-
☐	☐	☐	☐	☐

Comments_____

_____

Thank you for your kind co-operation.

If you have any printed material concerning the activities of your organisation or industrial branch it would be gratefully received.

If you would like to receive a summary report of this investigation, please tick here ☐

Appendix 3(1). Questionnaire for Organisations

International Tropical Timber Organisation,
Yokohama, Japan
Economic Information and Market Intelligence
Project PP-A/36-149

QUESTIONNAIRE for Organisations

Name and address of organisation_____

Contact person _____ E-mail _____

Tel. _____ Fax _____

Branch of industry to which your answers of this questionnaire apply: _____

1. a) How many enterprises are operating in your industrial branch? *(including those not affiliated to your organisation*) _____

b) Please, estimate the proportion of small business _____% (Given the general size and structure of industries, in this investigation, small businesses are defined as firms with less than 20 employees).

Comments_____
_____

2. Where are the main markets for the products of your industrial branch, and how has the demand in those markets developed over the past five years?

	% of value	Increasing	No Change	Decreasing
Domestic market	_____	☐	☐	☐
EU market	_____	☐	☐	☐
World market (excl. EU)	_____	☐	☐	☐
	100			

Comments_____
_____

3. Have the demand conditions for customers of your branch changed over the past five years?

☐ More buyers
☐ No significant change in demand situation
☐ Fewer buyers

Comments_____
_____

4. To what extent are companies in your industrial branch changing localisation of your production units to other countries?

☐ No significant change _____
☐ There are significant changes over the last five years _____
☐ Will consider change the next five years _____

What countries are referred to? _____

Comments_____
_____

Appendix 3(2)

5. How have the supply-side conditions for raw materials of your industrial branch changed over the past five years? (please, mark with a sign in the table in each column)

	Domestic	All imported	Tropical imported
More suppliers			
No significant change			
Fewer suppliers			

Comments_____
_____

6. The situation regarding *wood products' demand.* *From* ***Import*** *sources and/or from* ***domestic*** *sources.*

How large share of the turnover in your branch is constituted by raw material cost? _____%

Below, products should be given as logs, sawnwood, veneer, plywood, builders joinery, flooring, mouldings, millwork, furniture/wooden parts for furniture or others.

Product no 1: (please, specify) _____

	Tropical hardwoods	Temperate hardwoods	Softwoods
Specify in % (add to 100)			
Share imports/domestic			

	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay
Last five years	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Next five years year	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Product no 2: (please, specify)_____

	Tropical hardwoods	Temperate hardwoods	Softwoods
Specify in % (add to 100)			
Share imports/domestic			

	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay
Last five years	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Next five years year	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

- Competition from raw material substitutes: Which? _____
- Decreasing/increasing?_____
- Other trends_____

Product no 3: (please, specify)_____

	Tropical hardwoods	Temperate hardwoods	Softwoods
Specify in % (add to 100)			
Share imports/domestic			

	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay
Last five years	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Next five years year	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

(Fill in with more products if necessary)

Comments _____
_____

Appendix 3(3)

7. The situation concerning markets for final products. *Product supply to the **domestic** market <u>and/or</u> **export** markets*

Product no 1: (please, specify) _____

	Based on tropical hardwoods	Based on temperate hardwoods	Based on softwoods
Specify in % (add to 100)			
Share domestic/exports			

	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay
Last five years	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Next five years year	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Product no 2: (please, specify)_____

	Based on tropical hardwoods	Based on temperate hardwoods	Based on softwoods
Specify in %			
Share domestic/exports			

	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay
Last five years	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Next five years year	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Product no 3: (please, specify)_____

	Based on tropical hardwoods	Based on temperate hardwoods	Based on softwoods
Specify in %			
Share domestic/exports			

	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay	Incr.	NoCh	Decr.	NoSay
Last five years	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Next five years year	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

(Fill in with more products if necessary)

- Competition from raw material substitutes: Which? _____
- Decreasing/increasing? _____

Comments _____
_____

8. In what direction(s) do you think industrial production will develop in your branch during the next five years?

		Fully agree				Do not agree
a)	Increased product specialisation	☐	☐	☐	☐	☐
b)	Diversification of production	☐	☐	☐	☐	☐
c)	Increased production of semi-finished components for other branches	☐	☐	☐	☐	☐
d)	Increase in just-in-time and flexible production	☐	☐	☐	☐	☐
e)	Increased use of centralised marketing organisations for prom.	☐	☐	☐	☐	☐
f)	Increased price competitiveness	☐	☐	☐	☐	☐
g)	Increased price instability	☐	☐	☐	☐	☐
h)	Increased use of tropical logs	☐	☐	☐	☐	☐
i)	Increased use of tropical sawnwood	☐	☐	☐	☐	☐
j)	of tropical veneer	☐	☐	☐	☐	☐
k)	of tropical plywood	☐	☐	☐	☐	☐

of tropical Secondary Processed ☐ ☐ ☐ ☐ ☐
Wood Products (SPWP)

Specify the most important ones _____
Other significant development _____

Appendix 3(4)

9. To what extent are the following issues regarding *tropical* raw materials seen as problems in businesses of your industrial branch?

		Large problem	Minor problem	Not a problem
a)	Quality consistency	☐	☐	☐
b)	Supply regularity	☐	☐	☐
c)	Promotional support	☐	☐	☐
d)	Price competitiveness and price stability of product no 1	☐	☐	☐
e)	of product no 2	☐	☐	☐
f)	of product no 3	☐	☐	☐
g)	Raw material acquisition – Import in general	☐	☐	☐
h)	– product no 1	☐	☐	☐
i)	– product no 2	☐	☐	☐
j)	– product no 3	☐	☐	☐

(Fill in with more products if necessary)

Specify the most important ones _____
Raw material substitution by other wooden goods Specify _____
Raw material substitution by non-wooden goods Specify _____
Other significant problem Specify _____
_____

Comments _____
_____

10. What are your expectations regarding the development of the supply regions of tropical wood products?

	Up		Down
Trends for Africa	☐	☐	☐
Asia	☐	☐	☐
Latin America	☐	☐	☐

Comments _____
_____

11. What is the most important support that members of your branch may want to receive from Italian public institutions? _____
_____

12. Please, specify and rank the following items in terms of the most important instruments of market regulation for your branch **(**tariffs, other trade obstacles, control measures, subsidies, certification**)**

1._____2._____

3._____

Other measures? _____

_____

Appendix 3(5)

13. Has your organisation worked on the following tasks in order to advance the interests of your industrial branch and its member firms – *especially having in mind the promotion for the use of tropical timber and tropical wood-based SPWP*?

		No at all	Little more	Some more	Much more
a)	Lobbying	☐	☐	☐	☐
b)	Promotion	☐	☐	☐	☐
c)	Certification	☐	☐	☐	☐

Other activities? Please, specify _____

_____

14. To what extent are you receiving pressure from organisations and customers in relation to the issue of tropical resources?

	Not at all	Some	Much
Media	☐	☐	☐
Customers	☐	☐	☐
Environmental NGOs	☐	☐	☐
Other NGOs	☐	☐	☐
Other organisations	☐	☐	☐

Thank you for your kind co-operation.

If you have any printed material concerning the activities of your organisation and the industrial branch it would be gratefully received.

If you would like to receive a summary report of this investigation, please tick here ☐

Any additional comments

_____
_____
_____
_____

Appendix 4: Import duty rates as of March 2005

Chapter 44 "Wood and Wood Products"

					Description	3rd coutr. Duty %	Tariff preference
4401					Fuel wood, in logs, in billets, in twigs, in faggots or in similar forms; wood in chips or particles; sawndust and wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms		
	1	0			- Fuel wood, in logs, billets, in twigs, in faggots or in smilar form	0	
	2	1			- Wood in chips or particles; -- Coniferous	0	
	2	2			- Wood in chips or particles; -- Non-coniferous	0	
	3	0	10		- Sawndust and wood waste and scrap, whether of not agglomerated in logs, briquettes, pellets of similar forms; -- Sawndust	0	
			90		- Sawndust and wood waste and scrap, whether of not agglomerated in logs, briquettes, pellets of similar forms; -- Other	0	
4402					Wood charcoal (incl. shell or nut charcoal), whether or not agglomerated	0	
4403					Wood in the rough; whether or not stripped of bark or sapwood, or roughly squared		
	2	0			- Other, coniferous		
			11		-- Spruce of the species"Picea abies Karst." or silver fir (Abies alba Mill.); --- Sawlogs	0	
			19		-- Spruce of the species"Picea abies Karst." or silver fir (Abies alba Mill.); -- Other	0	
			31		-- Pine of the species "Pinus sylvestris L."; --- Sawlogs	0	
			39		-- Pine of the species "Pinus sylvestris L."; --- Other	0	
			91		-- Other species; --- Sawlogs	0	
			99		--Other; ---Other	0	
	4	1			- Other, of tropical wood; -- Dark red meranti, light red meranti and meranti bakau	0	
	4	9			-- Other tropical	0	
			10		--- Sapelli, acajou d'Afrique and iroko	0	
			20		--- Okoumé	0	
			40		--- Sipo	0	
			95		--- Other	0	
	9	1			- Other	0	
			10		-- Of oak (Quercus spp.); --- Sawlogs	0	
			90		-- Of oak (Quercus spp.); --- Other	0	
	9	2			- Other	0	
			10		-- Of beech (Fagus spp.); --- Sawlogs	0	
			90		-- Of beech (Fagus spp.); --- Other	0	
	9	9			-- Other	0	
			10		--- Of poplar	0	

			30		--- Of eucalyptus	0	
			51		--- Of birch; Sawlogs	0	
			59		--- Of birch; Other	0	
			95		--- Other	0	
4404					Hoopwood; split poles; piles, pickets and stakes of wood, pointed but not sawn lengthwise; wooden sticks, roughly trimmed but not turned, bent or otherwise worked, suitable for the manufacture of walking sticks, umbrellas, tool handles or the like; chipwood and the like		
	1	0			- Coniferous	0	
	2	0			- Non-coniferous	0	
4405					Wood wool; wood flour	0	
4406					Railway or tramway sleepers (cross-ties) of wood		
	1	0			- Not impregnated	0	
	9	0			- Other	0	
4407					Wood sawn och chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness exceeding 6 mm		
	1	0			- Coniferous		
			15		-- Sanded; end-jointed, whether or not planed of sanded	0	
			31		-- Other --- Planed; ---- Spruce of the species “Picea abies Kars.” or silver fir (Abies alba Mill.)	0	
			33		-- Other --- Planed; ---- Pine of the species “Pinus sylvestris L.”	0	
			38		-- Other --- Planed; ---- Other species	0	
			91		-- Other --- Other than planed; ---- Spruce of the species “Picea abies Kars.” or silver fir (Abies alba Mill.)	0	
			93		-- Other --- Other than planed; ---- Pine of the species “Pinus sylvestris L.”	0	
			98		-- Other --- Other than planed; ---- Other	0	
	2	4			- Of tropical wood… -- Virola, mahogany (Swietenia spp.), Impula and balsa	0	
			15		--- Sanded, end-jointed, whether of not planed or sanded	2.5	
			30		--- Other ---- Planed	2	
			90		--- Other ---- Other	0	
	2	5			-- Dark red meranti, light red meranti and meranti bakau		
			10		--- End-jointed, whether or not planed or sanded	2.5	
			30		--- Other ---- Planed	2	
			50		--- Other ---- Sanded	2.5	
			90	10	--- Other ---- Dark red meranti and light red meranti	0	
				90	--- Other ---- Other	0	
	2	6			-- White lauan, white meranti,white seraya, yellow meranti and alan		
			10		--- End-jointed, whether or not planed of sanded	2.5	
			30		--- Other ---- Planed	2	
			50		--- Other ---- Sanded	2.5	
			90		--- Other ---- Other	0	
	2	9			-- Other		
			05		--- End-jointed, whether of not planed or sanded	2.5	

			20		--- Other ---- Keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, okoumé, obéché, sapelli, sipo, acajou d'Africa, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, palissandre de Rio, palissandre de Para and palissandre de Rose ----- Planned ------ Palissandre de Rio, de Para and de Rose	2	
			30		--- Other ---- Keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, okoumé, obéché, sapelli, sipo, acajou d'Africa, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, palissandre de Rio, palissandre de Para and palissandre de Rose ----- Planed ------ Other	2	
			50		--- Other ---- Keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, okoumé, obéché, sapelli, sipo, acajou d'Africa, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, palissandre de Rio, palissandre de Para and palissandre de Rose ----- Sanded	2.5	
			61		--- Other ---- Keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, okoumé, obéché, sapelli, sipo, acajou d'Africa, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, palissandre de Rio, palissandre de Para and palissandre de Rose ----- Other ------ Azobé	0	
			69		--- Other ---- Keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, okoumé, obéché, sapelli, sipo, acajou d'Africa, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, palissandre de Rio, palissandre de Para and palissandre de Rose ----- Other ------ Other	0	
			83		--- Other ---- Other ----- Planed	2	
			85		--- Other ---- Other ----- Sanded	2.5	
			95		--- Other ---- Other ----- Other	0	
	9	1			- Other -- Of oak (Quercus spp.)		
			15		--- Sanded; end-jointed,whether or not planed or sanded	0	
			31		--- Other ---- Planed ----- Blocks, strips and friezes for parquet of wood block flooring, not assembled	0	
			39		--- Other ---- Planed ----- Other	0	
			90		--- Other ---- Other	0	
	9	2			- Other -- Of beech (Fagus spp.)	0	
	9	9			- Other -- Other		
			10		--- End-jointed, whether of not planed or sanded	0	
			30		--- Other ---- Planed	0	
			50		--- Other ---- Sanded	2.5	
			91		--- Other ---- Other ----- of poplar	0	
			96		--- Other ---- Other ----- of tropical wood	0	
			97		--- Other ---- Other ----- Other	0	
4408					Sheets for veneering (incl. those obtained by slicing laminated wood), for plywood of for other similar laminated wood and other wood, sawn lenghtwise, sliced or peeled, whether or not planed, sanded, spliced or end-jointed, of a thickness not exceeding 6 mm		

	1	0			- Coniferous		
			15		-- Planed; sanded; end-jointed, whether or not paned or sanded	3	
			91		-- Other ---Small boards for the manufacture of pencils	0	
			93		-- Other --- Other ---- Of thickness not exceeding 1 mm	4	
			99		-- Other --- Other ---- Of thickness exceeding 1 mm	4	
	3	1			- Of tropical wood… -- Dark red meranti, light red meranti and meranti bakau		
			11		--- End-jointed, whether or not planed or sanded	4.9	
			21		--- Other ---- Planed	4	
			25		--- Other ---- Sanded	4.9	
			30		--- Other ---- Other	6	
	3	9			- Of tropical wood… -- Other		
			15		--- White lauan, sipo, limba, okoumé, obéché, acajou d'Africa, sapelli, virola, mahogany (Swietenia spp.), palissandre de Rio, palissandre de Para and palissandre de Rose ---- Sanded	4.9	
			21		--- White lauan etc. (as above) ---- Other ----- Planed	4	
			31		--- White lauan etc. (as above) ---- Other ----- Other ------ Of a thickness not exceeding 1 mm	6	
			35		--- White lauan etc. (as above) ---- Other ----- Other ------ Of a thickness exceeding 1 mm	6	
			55		--- Other ---- Planed; sanded; end-jointed, whether or not planed or sanded	3	
			70		--- Other ---- Other -----Small boards for the manufacture of pencils	0	
			85		--- Other ---- Other ----- Other ------ Of a thickness not exceeding 1 mm	4	
			95		--- Other ---- Other ----- Other ------ Of a thickness exceeding 1 mm	4	
	9	0			- Other		
			15		-- Planed; sanded; end-jointed, whether or not planed or sanded	3	
			35		-- Other --- Small boards for the manufacture of pencils	0	
			85		-- Other --- Other ---- Of a thickness not exceeding 1 mm	4	
			95		-- Other --- Other ---- Of a thickness not exceeding 1 mm	4	
4409					Wood (incl. 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, ends or faces, whether or not planed, sanded or end-jointed		
	1	0			- Coniferous		
			11		-- Mouldings for frames for paintings, photographs, mirrors of similar objects	0	
			18		-- Other	0	
	2	0			- Non-coniferous		
			11		-- Mouldings for frames for paintings, photographs, mirrors of similar objects	0	

			91		-- Other --- Blocks, strips and friezes for parquet or wood block flooring, not assembled	0	
			98		-- Other --- Other	0	
4412					Plywood, veneered panels and similar laminated wood		
	1	3			-Plywood consisting solely of sheets of wood, each ply not exceeding 6 mm thickness -- With at least one outer ply of tropical wood…		
			10	10	--- Of dark red meranti, light red meranti, white lauan, sipo, limba obéché, okoumé, acajou d'Africa, sapelli, virola, mahogany (Swietenia spp.) palissandre de Rio, palissandre de Para and palissandre de Rose ---- Of okoumé not coated by a permanent film of other materials	10	China 66,7 % (for some companies) 6.5 % SPGL-group 1.6 % Chile
			10	90	--- Of dark red meranti, light red meranti, white lauan, sipo, limba obéché, okoumé, acajou d'Africa, sapelli, virola, mahogany (Swietenia spp.) palissandre de Rio, palissandre de Para and palissandre de Rose ---- Other	10	6.5 % SPGL-group 1.6 % Chile
			90		-- Other	7	3.5 % SPGL-gr.
	1	4			-- Other, with at least one outer ply of non-coniferous wood	7	3.5 % SPGL-gr.
	1	9			-- Other		
			00	10	--- Plywood of coniferous species, without the addition of other substances, of a thickness greater than 18.5 mm when sanded, or of a thickness greater than 8.5 mm when the faces are not further prepared than the peeling process	7	3.5 % SPGL-group
			00	90	--- Other	7	3.5 % SPGL-gr.
	2	2			- Other, with at least one outer ply of non-coniferous wood -- With at least one ply of tropical wood…		
			10		--- Containing at least one layer of particle board	6	2.5 % SPGL-group
			91		--- Other ---- Blockboard, laminboard and battenboard	10	1.6 % Chile 6.5 % SPGL-gr.
			99		--- Other ---- Other	10	1.6 % Chile 6.5 % SPGL-gr.
	2	3			- Other, with at least one outer ply of non-coniferous wood -- Other, containing at least one layer of particle board	6	2.5 % SPGL-gr.
	2	9	20		-- Other, with at least one outer ply of non-coniferous wood --- Blockboard, laminboard and battenboard	10	1.6 % Chile 6.5 % SPGL-group
			80		-- Other, with at least one outer ply of non-coniferous wood --- Other	10	1.6 % Chile 6.5 % SPGL-group
	9	2			- Other -- With at least one ply of tropical wood…		
			10		--- Containing at least one layer of particle board	6	2.5 % SPGL-gr.
			91		--- Other ---- Blockboard, laminboard and battenboard	6	2.5 % SPGL-gr.
			99	10	--- Other ---- Other ----- Plywood of coniferous species, without the addition of other subsances , of a thickness greater than 18.5 mm when sanded, or of a thickness greater than 8.5 mm when the faces are not further prepared than the peeling process	10	1.6 % Chile 6.5 % SPGL-group
			99	90	--- Other ---- Other ----- Other	10	1.6 % for Chile and for SPGL-

							group 6.5 %
	9	3			- Other -- Other; containing at least one layer of particle board	6	6.5 % SPGL-group
	9	9	20		- Other -- Other --- Blockboard, laminboard and battenboard	6	
			80	10	- Other – Other --- Other ---- Plywood of coniferous species, without the addition of other subsances , of a thickness greater than 18.5 mm when sanded, or of a thickness greater than 8.5 mm when the faces are not further prepared than the peeling process	10	1.6 % Chile 6.5 % SPGL-group
			80	90	- Other – Other --- Other ---- Other	10	1.6 % Chile 6.5 % SPGL-gr.
4413					Densified wood, in blocks, plates, strips or profile shapes	0	
4414					Wooden frames for paintings, photographs, mirrors or similar objects		
	0	0	10		- Of tropical wood…	2.5	
			90		- Of other wood	0	
4415					Packing cases, boxes, crates, drums and similar packings; of wood, cable-drums of wood; pallets, box pallets and other load boards, of wood; pallet collars of wood		
	1	0	10		-- Cases, boxes, crates, drums and similar packing	4	
			90		-- Cable-drums	3	
	2	0	20		-- Flat pallets; pallet collars	3	
			90		-- Other	4	
4416					Casks, barrels, vats, tubs and other coopers' products and parts thereof, of wood, incl. staves	0	
4417					Tools, tool bodies, tool handles, broom or brush bodies and handles, of wood; boot or shoe lasts and trees, of wood	0	
4418					Builders joinery and carpentry of wood, incl. cellular wood panels, assembled parquet panels, shingles and shakes		
	1	0			- Windows, French-windows and their frames		
			10		-- Of tropical wood…	3	
			50		-- Coniferous	3	
			90		-- Other	3	
	2	0			- Doors and their frames and thresholds		
			10		-- Of tropical wood…	3	
			50		-- Coniferous	0	
			80		-- Other	0	
	3	0			- Parquet panels		
			10		-- For mosaic floors	3	
			91		-- Other --- Composed of two or more layers of wood	0	
			99		-- Other --- Other	0	
	4	0			- Shuttering for concrete constructional work	0	
	5	0			- Shingles and shakes	0	
	9	0	10		- Other -- Glue-laminated timber	0	
			90		- Other -- Other	0	

4419					Tableware and kitchenware, of wood		
	0	0	10		- Of tropical wood…	0	
			90		- Of other wood	0	
4420					Wood marquerity and inlaid wood; caskets and cases for jewellery or cutlery, and similar articles of wood; statuettes and other ornaments, of wood; wooden articles of furniture not falling in chanpter 94		
	1	0			- Statuettes and other ornaments, of wood		
			11	10	-- Of tropical wood… --- Hand-made	3	
			11	90	-- Of tropical wood… --- Other	3	
			19		-- Of other wood	0	
	9	0			- Other		
			10		-- Wood marquerity and inlaid wood	4	
			91	10	-- Other --- Of tropical wood… ---- Hand-made	3	
			91	90	-- Other --- Of tropical wood… ---- Other	3	
			99		-- Other --- Other	0	
4421					Other articles of wood		
	1	0			- Clothes hangers	0	
	9	0	91		- Other -- Of fibreboard	4	
			98		- Other -- Other	0	
Chap. *)	9	4					
9401	5	0	00		Seats of cane, osier, bamboo of similar materials	5.6	
9403	8	0	00		Furniture of cane, osier, bamboo of similar materials (excluding metal, wood and plastics)	5.6	
9403	9	0	10		Parts of furniture, of metal, NES (excl. seats)	2.7	
9403	4	0	10		Fitted kitchen units	2.7	
9403	4	0	90		Wooden furniture of a kind used in kitchen (excl. seats and fitted kitchen units)	2.7	
9401	9	0	30		Parts of seats, NES	2.7	
9403	9	0	30		Parts of furniture, NES	2.7	
9406	0	0	11		Prefabricated buildings, Mobile homes	2.7	
9406	0	0	20		Prefabricated buildings, Other, of wood	2.7	

*) Only those with duties included

Appendix 5. SPGL-group countries

Country:	Code:
United Arab Emirates	AE
Antigua and Barbuda	AG
Anquilla	AI
Armenia	AM
Netherlands Antilles	AN
Antarctica	AQ
Argentina	AR
American Samoa	AS
Aruba	AW
Azerbaijan	AZ
Barbados	BB
Bahrain	BH
Bermuda	BM
Brunei	BN
Brazil	BR
Bahamas	BS
Bouvet Island	BV
Botswana	BW
Belarus	BY
Belize	BZ
Cocos Island (or Keeling Isl)	CC
Congo (Republic of)	CG
Côte d'Ivoire	CI
Cook Islands	CK
Chile	CL
Cameroon	CM
China	CN
Cuba	CU
Christmas Island	CX
Dominica	DM
Dominican Republic	DO
Algeria	DZ
Egypt	EG
Fiji	FJ
Falkland Islands	FK
Micronesia, Federal States of	FM
Gabon	GA
Grenada	GD
Georgia	GE
Ghana	GH
Gibraltar	GI
Greenland	GL
South Georgia and South Sandwich Islands	GS
Guam	GU
Guyana	GY
Heard Island and McDonald Islands	HM
Indonesia	ID
India	IN
British Indian Ocean Territory	IO
Iraq	IQ
Iran	IR
Jamaica	JM
Jordan	JO
Kenya	KE
Kyrgyzstan	KG
St Kitts and Nevis	KN
Kuwait	KW
Cayman Islands	KY
Kazakhstan	KZ
Lebanon	LB
St. Lucia	LC
Sri Lanka	LK
Libya	LY
Morocco	MA
Moldova	MD
Rep. Of the Marshall Islands	MH
Mongolia	MN
Macao	MO
Northern Mariana Islands	MP
Montserrat	MS
Mauritius	MU
Mexico	MX
Malaysia	MY
Namibia	NA
New Caledonia and Dependencies	NC
Norfolk Island	NF
Nigeria	NG
Nauru	NR
Niue Island	NU
Oman	OM
French Polynesia	PF
Papua New Guinea	PG
Philippines	PH
St Pierre and Miquelon	PM
Pitcairn	PN
Palau	PW
Paraguay	PY
Qatar	QA
Russian Federation	RU
Saudi Arabia	SA
Seychelles and dependencies	SC
St Helena and dependencies	SH
Surinam	SR
Syria	SY
Swaziland	SZ
Turks and Caicos Islands	TC
French Southern Territories	TF
Thailand	TH
Tajikistan	TJ
Tokelau	TK
Turkmenistan	TM
Tunisia	TN
Tongua	TO
Trinidad and Tobago	TT
Ukraine	UA
United States Minor outlying islands	UM
Uruguay	UY
Uzbekistan	UZ
St Vincent and the Grenadines	VC
Brit. Virgin Is.	VG
Virgin Islands of U.S.	VI
Vietnam	VN
Wallis and Futuna Islands	WF
Mayotte	YT
South Africa	ZA
Zimbabwe	ZW

Appendix 6. Definition of export and import regions according to ISTAT

EU
France, Netherlands, Germany, United Kingdom, Ireland, Denmark, Greece, Portugal, Spain, Belgium, Luxembourg, Sweden, Finland, Austria.

CE Europe
Estonia, Latvia, Lithuania, Poland, Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Albania, Ukraine, Belarus, Moldova (Republic of), Russian Federation, Slovenia, Croatia, Bosnia – Herzegovina, Serbia and Montenegro, Former Yugoslav Republic of Macedonia.

Other Europe
Iceland, Norway, Liechtenstein, Switzerland, Faeroe Islands, Andorra, Gibraltar, Holy See, Malta, Turkey, Cyprus.

Africa
Ceuta, Melilla, Morocco, Algeria, Tunisia, Libyan Arab Jamahiriya, Egypt, Sudan, Mauritania, Mali, Burkina Faso, Niger, Chad, Cape Verde, Senegal, Gambia, Guinea-Bissau, Guinea, Sierra Leone, Liberia, Ivory Coast, Ghana, Togo, Benin, Nigeria, Cameroon, Central African Republic, Equatorial Guinea, Sao Tome and Principe, Gabon, Congo, Congo (Democratic Republic of), Rwanda, Burundi, Saint Helena, Angola, Ethiopia, Eritrea, Djibouti, Somalia, Kenya, Uganda, Tanzania (United Republic of), Seychelles, British Indian Ocean Territory, Mozambique, Madagascar, Mauritius, Comoros, Mayotte, Zambia, Zimbabwe, Malawi, South Africa, Namibia, Botswana, Swaziland, Lesotho.

N America
United States, Canada, Greenland, St Pierre and Miquelon.

CS America
Mexico, Bermuda, Guatemala, Belize, Honduras, El Salvador, Nicaragua, Costa Rica, Panama, Anguilla, Cuba, St Kitts and Nevis, Haiti, Bahamas, Turks and Caicos Islands, Dominican Republic, US Virgin Islands, Antigua and Barbuda, Dominica, Cayman Islands, Jamaica, St Lucia, St Vincent and the Grenadines, British Virgin Islands, Barbados, Montserrat, Trinidad and Tobago, Grenada, Aruba, Netherlands Antilles, Colombia, Venezuela, Guyana, Suriname, Ecuador, Peru, Brazil, Chile, Bolivia, Paraguay, Uruguay, Argentina, Falkland Islands.

Asia
Georgia, Armenia, Azerbaijan, Kazakhstan, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Lebanon, Syrian Arab Republic, Iraq, Iran (Islamic Republic of), Israel, Occupied Palestinian Territory, East Timor, Jordan, Saudi Arabia, Kuwait, Bahrain, Qatar, United Arab Emirates, Oman, Yemen, Afghanistan, Pakistan, India, Bangladesh, Maldives, Sri Lanka, Nepal, Bhutan, Myanmar, Thailand, Lao (People's Democratic Republic of), Viet Nam, Cambodia, Indonesia, Malaysia, Brunei, Singapore, Philippines, Mongolia, China, Korea (People's Democratic Republic of), South Korea, Japan, Taiwan, Hong Kong, Macao.

Other
World – [EU, CE Europe, Oth Europe, Africa, N America, CS America, Asia, Other].

World
EU, CE Europe, Oth Europe, Africa, N America, CS America, Asia, Other.

Appendix 7. Product definitions according to ISTAT CN8

Industrial roundwood 1999-2003

Industrial roundwood, coniferous

1999 – 2001

44 03 20 10 - Spruce of the kind "Picea abies Karst." or silver fir "Abies alba Mill.", in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood in the form of railway sleepers; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 20 30 - Pine of the kind "Pinus sylvestris L." in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood in the form of railway sleepers; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 20 90 - Coniferous wood in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood in the form of railway sleepers; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives; and spruce of the kind "Picea abies Karst.", silver fir "Abies alba Mill." and pine of the kind "Pinus sylvestris L.")

2002 – 2003

44 03 20 11 - Sawlogs of spruce of the kind "Picea abies Karst." or silver fir "Abies alba Mill.", whether or not stripped of bark or sapwood, or roughly squared

44 03 20 19 - Spruce of the kind "Picea abies Karst." or silver fir "Abies alba Mill.", in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. sawlogs; rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood in the form of railway sleepers; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 20 31 - Sawlogs of pine of the kind "Pinus sylvestris L.", whether or not stripped of bark or sapwood, or roughly squared

44 03 20 39 - Pine of the kind "Pinus sylvestris L." in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. sawlogs; rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood in the form of railway sleepers; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 20 91 - Sawlogs of coniferous wood, whether or not stripped of bark or sapwood, or roughly squared (excl. spruce of the kind "Picea abies Karst.", silver fir "Abies alba Mill." and pine of the kind "Pinus sylvestris L.")

44 03 20 99 - Coniferous wood in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. sawlogs; rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood in the form of railway sleepers; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives; and spruce of the kind "Picea abies Karst.", silver fir "Abies alba Mill." and pine of the kind "Pinus sylvestris L.")

Industrial roundwood, non-coniferous

1999 – 2001

44 03 91 00 - Oak "Quercus spp." in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood in the form of railway sleepers; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 92 00 - Beech "Fagus spp." in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood in the form of railway sleepers; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 99 10 - Poplar in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 99 30 - Eucalyptus wood in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 99 50 - Birch, in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 99 98 - Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives, tropical wood of Subheading Note 1 to this chapter and coniferous wood, oak, beech, poplar, eucalyptus and birch wood)

2002 – 2003
44 03 91 10 - Sawlogs of oak "Quercus spp.", whether or not stripped of bark or sapwood, or roughly squared

44 03 91 90 - Oak "Quercus spp." in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. sawlogs; rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood in the form of railway sleepers; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 92 10 - Sawlogs of beech "Fagus spp.", whether or not stripped of bark or sapwood, or roughly squared

44 03 92 90 - Beech "Fagus spp." in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. sawlogs; rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood in the form of railway sleepers; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 99 10 - Poplar in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 99 30 - Eucalyptus wood in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 99 51 - Sawlogs of birch, whether or not stripped of bark or sapwood, or roughly squared

44 03 99 59 - Birch, in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. sawlogs; rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 99 95 - Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives, tropical wood of Subheading Note 1 to this chapter and coniferous wood, oak, beech, poplar, eucalyptus and birch wood)

Industrial roundwood, tropical
1999 – 2001
44 03 41 00 - Dark red meranti, light red meranti and meranti bakau wood in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 49 10 - Sapele, acajou d'Afrique and iroke in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 49 20 - Okoumé, in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 49 40 - Sipo in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 49 80 - Abura, afrormosia, ako, alan, andiroba, aningré, avodiré, azobé, balau, balsa, bossé clair, bossé foncé, cativo, cedro, dabema, dibétou, doussié, framiré, freijo, fromager, fuma, geronggang, ilomba, imbua, ipé, jaboty, jelutong, jequitiba, jongkong, kapur, kempas, keruing, kosipo, kotibé, koto, limba, louro, maçaranduba, mahogany, makoré, mansonia, mengkulang, merawan, merbau, merpauh, mersawa, moabi, niangon, nyatoh, obéché, onzabili, orey, ovengkol, ozigo, padauk, paldao, palissandre de Guatemala, palissandre de Rio, palissandre de Para, palissandre de Rose, pau marfim, pulai, punah, ramin, saqui-saqui, sepetir, sucupira, suren, teak, tiama, tola, virola, white lauan, white meranti, white seraya and yellow meranti, in the rough, whether or not stripped of bark or sapwood, or roughly squared

2002 – 2003
44 03 41 00 - Dark red meranti, light red meranti and meranti bakau wood in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 49 10 - Sapele, acajou d'Afrique and iroke in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 49 20 - Okoumé, in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 49 40 - Sipo in the rough, whether or not stripped of bark or sapwood, or roughly squared (excl. rough-cut wood for walking sticks, umbrellas, tool shafts and the like; wood cut into boards or beams, etc.; wood treated with paint, stains, creosote or other preservatives)

44 03 49 95 - Abura, afrormosia, ako, alan, andiroba, aningré, avodiré, azobé, balau, balsa, bossé clair, bossé foncé, cativo, cedro, dabema, dibétou, doussié, framiré, freijo, fromager, fuma, geronggang, ilomba, imbua, ipé, jaboty, jelutong, jequitiba, jongkong, kapur, kempas, keruing, kosipo, kotibé, koto, limba, louro, maçaranduba, mahogany, makoré, mandioqueira, mansonia, mengkulang, merawan, merbau, merpauh, mersawa, moabi, niangon, nyatoh, obéché, onzabili, orey, ovengkol, ozigo, padauk, paldao, palissandre de Guatemala, palissandre de Rio, palissandre de Para, palissandre de Rose, pau Amarelo, pau marfim, pulai, punah, quaruba, ramin, saqui-saqui, sepetir, sucupira, suren, tauari, teak, tiama, tola, virola, white lauan, white meranti, white seraya and yellow meranti, in the rough, whether or not stripped of bark or sapwood, or roughly squared

Sawn wood 1999-2003

Sawn wood, coniferous
1999
44 07 10 10 - Legno segato o tagliato per il lungo, di spessore superiore a 6mm, di conifere, incollato con giunture a spina

44 07 10 50 - Legno segato o tagliato per il lungo, di spessore superiore a 6mm, di conifere, diverso da quello incollato con giunture a spina, levigato

2000 - 2003
44 07 10 15 - Coniferous wood sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, sanded, or finger-jointed, whether or not planed

1999 - 2003
44 07 10 31 - Spruce of the kind "Picea abies Karst." or silver fir "Abies alba Mill.", sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, planed (excl. finger-jointed)

44 07 10 33 - Pine of the kind "Pinus sylvestris L.", sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, planed (excl. finger-jointed)

44 07 10 38 - Coniferous wood sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, planed (excl. finger-jointed, spruce of the kind "Picea abies Karst.", silver fir "Abies alba Mill." and pine of the kind "Pinus sylvestris L.")

44 07 10 91 - Spruce "Picea abies Karst." or silver fir "Abies alba Mill.", sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm (excl. planed, sanded or finger-jointed; boards for the manufacture of pencils; wood with a length of <= 125 mm and a thickness of < 12,5 mm)

44 07 10 93 - Pine of the kind "Pinus silvestris L.", sawn or cut lengthwise, sliced or barked, with a thickness of > 6 mm (excl. planed, sanded or finger-jointed; boards for the manufacture of lead pencils, tracer pencils, colour pencils, slate pencils and other pencils with a wood casing; wood with a length of <=125 mm and a thickness of < 12,5 mm)

44 07 10 98 - Coniferous wood sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm (excl. planed or sanded, and spruce "Picea abies Karst.", silver fir "Abies alba Mill." and pine "Pinus sylvestris L.")

Sawn wood, non-coniferous
2000 - 2003
44 07 91 15 - Oak "Quercus spp.", sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, sanded, or finger-jointed, whether or not planed

44 07 91 39 - Oak "Quercus spp.", sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, planed (excl. finger-jointed and blocks, strips and friezes for parquet or wood block flooring)

44 07 91 90 - Oak "Quercus spp.", sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm (excl. planed, sanded or finger-jointed)

44 07 92 00 - Beech "Fagus spp.", sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or finger-jointed, of a thickness of > 6 mm

44 07 99 10 - Wood sawn or cut lengthwise, sliced or peeled, finger-jointed, of a thickness > 6 mm, finger-jointed, whether or not planed or sanded (excl. tropical wood specified in Subheading Note 1 to this chapter, coniferous wood, oak "Quercus spp." and beech "Fagus spp.")

44 07 99 30 - Wood sawn or cut lengthwise, sliced or peeled, planed, of a thickness of > 6 mm (excl. end-jointed; tropical wood specified in Subheading Note 1 to this chapter, coniferous wood, oak "Quercus spp." and beech "Fagus spp.")

44 07 99 50 - Wood sawn or cut lengthwise, sliced or peeled, sanded, of a thickness of > 6 mm (excl. end-jointed; tropical wood specified in Subheading Note 1 to this chapter, coniferous wood, oak "Quercus spp." and beech "Fagus spp.")

44 07 99 91 - Poplar, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm (excl. planed, sanded or finger-jointed)

44 07 99 97 - Wood, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm (excl. planed, sanded or finger-jointed, and tropical wood, coniferous wood, oak "Quercus spp.", beech "Fagus spp." and poplar)

Sawn wood, tropical
2001 - 2003
44 07 24 15 - Virola, mahogany "Swietenia spp.", imbuia and balsa, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, sanded, or finger-jointed, whether or not planed

44 07 24 30 - Virola, mahogany "Swietenia spp.", imbuia and balsa, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, planed (excl. finger-jointed)

44 07 24 90 - Virola, mahogany "Swietenia spp.", imbuia and balsa, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm (excl. planed, sanded or finger-jointed)

44 07 25 10 - Dark red meranti, light red meranti and meranti bakau, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, finger-jointed, whether or not planed or sanded

44 07 25 30 - Dark red meranti, light red meranti and meranti bakau, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, planed (excl finger-jointed)

44 07 25 50 - Dark red meranti, light red meranti and meranti bakau, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, sanded (excl. finger-jointed)

44 07 25 60 - Dark red meranti and light red meranti, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm (excl. such products planed, sanded or finger-jointed)

44 07 25 80 - Meranti bakau, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm (excl. such products planed, sanded or finger-jointed)

44 07 26 10 - White lauan, white meranti, white seraya, yellow meranti and alan, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, finger-jointed, whether or not planed or sanded

44 07 26 30 - White lauan, white meranti, white seraya, yellow meranti and alan, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, planed (excl. finger-jointed)

44 07 26 50 - White lauan, white meranti, white seraya, yellow meranti and alan, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, sanded (excl. finger-jointed)

44 07 26 90 - White lauan, white meranti, white seraya, yellow meranti and alan, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm (excl. planed, sanded or finger-jointed)

44 07 29 05 - Keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, okoumé, obéché, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, palissandre de Rio, palissandre de Para, palissandre de rose, abura, afrormosia, ako, andiroba, aningré, avodiré, balau, bossé clair, bossé foncé, cativo, cedro, dabema, doussié, framiré, freijo, fromager, fuma, geronggang, ipé, jaboty, jequitiba, kosipo, kotibé, koto, louro, maçaranduba, mahogany (excl. "Swietenia spp."), mengkulang, merawan, merpauh, mersawa, moabi, niangon, nyatoh, onzabili, orey, ovengkol, ozigo, padauk, paldao, palissandre de Guatemala, pau marfim, pulai, punah, saqui-saqui, sepetir, sucupira, suren and tola, sawn or chipped lengthwise, sliced or peeled, of a thickness > 6 mm, finger-jointed

44 07 29 20 - Palissandre de Rio, palissandre de Para and palissandre de rose, sawn or chipped lengthwise, sliced or peeled, planed, of a thickness of > 6 mm (excl. end-jointed)

44 07 29 30 - Keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, okoumé, obéché, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba and azobé, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, planed (excl. finger-jointed)

44 07 29 50 - Keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, okoumé, obéché, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, palissandre de Rio, palissandre de Para and palissandre de rose, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm, sanded (excl. finger-jointed)

44 07 29 61 - Azobé, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm (excl. such products planed, sanded or finger-jointed)

44 07 29 69 - Keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, okoumé, obéché, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, palissandre de Rio, palissandre de Para and palissandre de rose, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm (excl. such products planed, sanded or finger-jointed)

44 07 29 83 - Abura, afrormosia, ako, andiroba, aningré, avodiré, balau, bossé clair, bossé foncé, cativo, cedro, dabema, doussié, framiré, freijo, fromager, fuma, geronggang, ipé, jaboty, jequitiba, kosipo, kotibé, koto, louro, maçaranduba, mahogany (excl. "Swietenia spp."), mengkulang, merawan, merpauh, mersawa, moabi, niangon, nyatoh, onzabili, orey, ovengkol, ozigo, padauk, paldao, palissandre de Guatemala, pau marfim, pulai, punah, saqui-saqui, sepetir, sucupira, suren and tola, sawn or chipped lengthwise, sliced or peeled, of a thickness > 6 mm, planed (excl. finger-jointed)

44 07 29 85 - Abura, afrormosia, ako, andiroba, aningré, avodiré, balau, bossé clair, bossé foncé, cativo, cedro, dabema, doussié, framiré, freijo, fromager, fuma, geronggang, ipé, jaboty, jequitiba, kosipo, kotibé, koto, louro, maçaranduba, mahogany (excl. "Swietenia spp."), mengkulang, merawan, merpauh, mersawa, moabi, niangon,

nyatoh, onzabili, orey, ovengkol, ozigo, padauk, paldao, palissandre de Guatemala, pau marfim, pulai, punah, saqui-saqui, sepetir, sucupira, suren and tola, sawn or chipped lengthwise, sliced or peeled, of a thickness > 6 mm, sanded (excl. finger-jointed)

2001
44 07 29 99 - Abura, afrormosia, ako, andiroba, aningré, avodiré, balau, bossé clair, bossé foncé, cativo, cedro, dabema, doussié, framiré, freijo, fromager, fuma, geronggang, ipé, jaboty, jequitiba, kosipo, kotibé, koto, louro, maçaranduba, mahogany (excl. "Swietenia spp."), mengkulang, merawan, merpauh, mersawa, moabi, niangon, nyatoh, onzabili, orey, ovengkol, ozigo, padauk, paldao, palissandre de Guatemala, pau marfim, pulai, punah, saqui-saqui, sepetir, sucupira, suren and tola, sawn or chipped lengthwise, sliced or peeled, of a thickness > 6 mm (excl. finger-jointed, planed or sanded)

2002 - 2003
44 07 29 95 - Abura, afrormosia, ako, andiroba, aningré, avodiré, balau, bossé clair, bossé foncé, cativo, cedro, dabema, doussié, framiré, freijo, fromager, fuma, geronggang, ipé, jaboty, jequitiba, kosipo, kotibé, koto, louro, maçaranduba, mahogany (excl. "Swietenia spp."), mandioqueira, mengkulang, merawan, merpauh, mersawa, moabi, niangon, nyatoh, onzabili, orey, ovengkol, ozigo, padauk, paldao, palissandre de Guatemala, pau Amarelo, pau marfim, pulai, punah, quaruba, saqui-saqui, sepetir, sucupira, suren, tauari and tola, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm (excl. end-jointed, planed or sanded)

2001
44 07 99 94 - Tropical wood, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm (excl. planed, sanded or finger-jointed, and tropical wood specified in Subheading Note 1 to this chapter)

2002 - 2003
44 07 99 96 - Tropical wood, sawn or chipped lengthwise, sliced or peeled, of a thickness of > 6 mm (excl. planed, sanded or end-jointed, and tropical wood specified in Subheading Note 1 to this chapter)

Veneer 1999-2003

Veneer, non-tropical
1999 - 2003
44 08 10 15 - Veneer sheets and sheets for plywood, whether or not spliced, of coniferous wood and other coniferous wood, sawn lengthwise, sliced or peeled, of a thickness of <= 6 mm, planed, sanded or finger-jointed

44 08 10 91 - Small boards for the manufacture of pencils, of coniferous wood, of a thickness of <= 6 mm

44 08 10 93 - Veneer sheets and sheets for plywood, whether or not spliced, of coniferous wood and other coniferous wood, sawn lengthwise, sliced or peeled, of a thickness of <= 1 mm (excl. sanded)

44 08 10 99 - Veneer sheets and sheets for plywood, whether or not spliced, of coniferous wood and other coniferous wood, sawn lengthwise, sliced or peeled, of a thickness of <= 1 mm to 6 mm (excl. planed, sanded or finger-jointed, and small boards for the manufacture of pencils)

44 08 90 15 - Veneer sheets and sheets for plywood, whether or not spliced, and other wood, sawn lengthwise, sliced or peeled, of a thickness of <= 6 mm, planed, sanded or finger-jointed (excl. tropical wood of Subheading Note 1 to this chapter and coniferous wood)

44 08 90 35 - Small boards for the manufacture of pencils, of wood, of a thickness of <= 6 mm (excl. tropical wood of Subheading Note 1 to this chapter and coniferous wood)

1999 - 2001
44 08 90 81 - Veneer sheets and sheets for plywood, whether or not spliced, and other wood, sawn lengthwise, sliced or peeled, of a thickness of <= 1 mm (excl. sanded, and tropical wood of Subheading Note 1 to this chapter and coniferous wood)

44 08 90 89 - Veneer sheets and sheets for plywood, whether or not spliced, and other wood, sawn lengthwise, sliced or peeled, of a thickness of > 1 mm but <= 6 mm (excl. planed, sanded or finger-jointed, small boards for the manufacture of pencils, of tropical wood of Subheading Note 1 to this chapter and coniferous wood)

2002 – 2003
44 08 90 85 - Sheets for veneering, incl. those obtained by slicing laminated wood, for plywood or for other similar laminated wood and other wood, sawn lengthwise, sliced or peeled, whether or not spliced, of a thickness of <= 1 mm (excl. planed, sanded or end-jointed, and tropical wood of Subheading Note 1 to this chapter and coniferous wood)

44 08 90 95 - Sheets for veneering, incl. those obtained by slicing laminated wood, for plywood or for other similar laminated wood and other wood, sawn lengthwise, sliced or peeled, whether or not spliced, of a thickness of > 1 mm (excl. planed, sanded or end-jointed, and tropical wood of Subheading Note 1 to this chapter and coniferous wood)

Veneer, tropical
1999 - 2003
44 08 31 11 - Veneer sheets and sheets for plywood, whether or not spliced, and other wood, sawn lengthwise, sliced or peeled, of a thickness of <= 6 mm, finger-jointed, whether or not planed or sanded, of dark red meranti, light red meranti and meranti bakau

44 08 31 21 - Veneer sheets and sheets for plywood, whether or not spliced, and other wood, sawn lengthwise, sliced or peeled, of a thickness of <= 6 mm, planed, of dark red meranti, light red meranti and meranti bakau (excl. finger-jointed)

44 08 31 25 - Veneer sheets and sheets for plywood, whether or not spliced, and other wood, sawn lengthwise, sliced or peeled, of a thickness of <= 6 mm, sanded, of dark red meranti, light red meranti and meranti bakau (excl. finger-jointed)

44 08 31 30 - Veneer sheets and sheets for plywood, whether or not spliced, and other wood, sawn lengthwise, sliced or peeled, of a thickness of <= 6 mm, of dark red meranti, light red meranti and meranti bakau (excl. planed, sanded or finger-jointed)

44 08 39 15 - Veneer sheets and sheets for plywood, whether or not spliced, and other wood, sawn lengthwise, sliced or peeled, sanded, or finger-jointed, whether or not planed, of a thickness of <= 6 mm, of white lauan, sipo, limba, okoumé, obéché, acajou d'Afrique, sapelli, virola, mahogany "Swietenia spp.", palissandre de Rio, palissandre de Para and palissandre de Rose

44 08 39 21 - Veneer sheets and sheets for plywood, whether or not spliced, and other wood, sawn lengthwise, sliced or peeled, planed, of a thickness of <= 6 mm, of white lauan, sipo, limba, okoumé, obéché, acajou d'Afrique, sapelli, virola, mahogany "Swietenia spp.", palissandre de Rio, palissandre de Para and palissandre de Rose (excl. finger-jointed)

44 08 39 31 - Veneer sheets and sheets for plywood, whether or not spliced, and other wood, sawn lengthwise, sliced or peeled, of a thickness of <= 1 mm, of white lauan, sipo, limba, okoumé, obéché, acajou d'Afrique, sapelli, virola, mahogany "Swietenia spp.", palissandre de Rio, palissandre de Para and palissandre de Rose (excl. planed, sanded or finger-jointed)

44 08 39 35 - Veneer sheets and sheets for plywood, whether or not spliced, and other wood, sawn lengthwise, sliced or peeled, of a thickness of > 1 mm but <= 6 mm, of white lauan, sipo, limba, okoumé, obéché, acajou d'Afrique, sapelli, virola, mahogany "Swietenia spp.", palissandre de Rio, palissandre de Para and palissandre de Rose (excl. planed, sanded or finger-jointed)

44 08 39 55 - Veneer sheets and sheets for plywood, whether or not spliced, and other wood, sawn lengthwise, sliced or peeled, of a thickness of <= 6 mm, planed, sanded or finger-jointed, of abura, afrormosia, ako, alan, andiroba, aningré, avodiré, azobé, balau, balsa, bossé clair, bossé foncé, cativo, cedro, dabema, dibétou, doussié, framiré, freijo, fromager, fuma, geronggang, ilomba, imbuia, ipé, iroko, jaboty, jelutong, jequitiba, jongkong, kapur, kempas, keruing, kosipo, kotibé, koto, louro, maçaranduba, mahogany (excl. "Swietenia spp."), makoré, mansonia, merawan, mengkulang, merbau, merpauh, mersawa, moabi, niangon, nyatoh, onzabili, orey, ovengkol, ozigo, padauk, paldao, palissandre de Guatemala, pau marfim, pulai, punah, ramin, saqui-saqui, sepetir, sucupira, suren, teak, tiama, tola, white meranti, white seraya and yellow meranti

44 08 39 70 - Small boards for the manufacture of pencils, of wood, of a thickness of <= 6 mm, of abura, afrormosia, ako, alan, andiroba, aningré, avodiré, azobé, balau, balsa, bossé clair, bossé foncé, cativo, cedro, dabema, dibétou, doussié, framiré, freijo, fromager, fuma, geronggang, ilomba, imbuia, ipé, iroko, jaboty, jelutong, jequitiba, jongkong, kapur, kempas, keruing, kosipo, kotibé, koto, louro, maçaranduba, mahogany (excl. "Swietenia spp."), makoré, mansonia, mengkulang, merawan, merbau, merpauh, mersawa, moabi,

niangon, nyatoh, onzabili, orey, ovengkol, ozigo, padauk, paldao, palissandre de Guatemala, pau marfim, pulai, punah, ramin, saqui-saqui, sepetir, sucupira, suren, teak, tiama, tola, white meranti, white seraya and yellow meranti

1999 - 2001
44 08 39 80 - Veneer sheets and sheets for plywood, whether or not spliced, and other wood, sawn lengthwise, sliced or peeled, of a thickness of <= 1 mm, of abura, afrormosia, ako, alan, andiroba, aningré, avodiré, azobé, balau, balsa, bossé clair, bossé foncé, cativo, cedro, dabema, dibétou, doussié, framiré, freijo, fromager, fuma, geronggang, ilomba, imbuia, ipé, iroko, jaboty, jelutong, jequitiba, jongkong, kapur, kempas, keruing, kosipo, kotibé, koto, louro, maçaranduba, mahogany (excl. "Swietenia spp."), makoré, mansonia, merawan, mengkulang, merbau, merpauh, mersawa, moabi, niangon, nyatoh, onzabili, orey, ovengkol, ozigo, padauk, paldao, palissandre de Guatemala, pau marfim, pulai, punah, ramin, saqui-saqui, sepetir, sucupira, suren, teak, tiama, tola, white meranti, white seraya and yellow meranti

44 08 39 90 - Veneer sheets and sheets for plywood, whether or not spliced, and other wood, sawn lengthwise, sliced or peeled, of a thickness of > 1 mm but <= 6 mm, of abura, afrormosia, ako, alan, andiroba, aningré, avodiré, azobé, balau, balsa, bossé clair, bossé foncé, cativo, cedro, dabema, dibétou, doussié, framiré, freijo, fromager, fuma, geronggang, ilomba, imbuia, ipé, iroko, jaboty, jelutong, jequitiba, jongkong, kapur, kempas, keruing, kosipo, kotibé, koto, louro, maçaranduba, mahogany (excl. "Swietenia spp."), makoré, mansonia, mengkulang, merawan, merbau, merpauh, mersawa, moabi, niangon, nyatoh, onzabili, orey, ovengkol, ozigo, padauk, paldao, palissandre de Guatemala, pau marfim, pulai, punah, ramin, saqui-saqui, sepetir, sucupira, suren, teak, tiama, tola, white meranti, white seraya and yellow meranti

2002 – 2003
44 08 39 85 - Sheets for veneering, incl. those obtained by slicing laminated wood, for plywood or for other similar laminated wood and other wood, sawn lengthwise, sliced or peeled, whether or not spliced, of a thickness of <= 1 mm, of abura, afrormosia, ako, alan, andiroba, aningré, avodiré, azobé, balau, balsa, bossé clair, bossé foncé, cativo, cedro, dabema, dibétou, doussié, framiré, freijo, fromager, fuma, geronggang, ilomba, imbuia, ipé, iroko, jaboty, jelutong, jequitiba, jongkong, kapur, kempas, keruing, kosipo, kotibé, koto, louro, maçaranduba, mahogany (excl. "Swietenia spp."), makoré, mandioqueira, mansonia, merawan, mengkulang, merbau, merpauh, mersawa, moabi, niangon, nyatoh, onzabili, orey, ovengkol, ozigo, padauk, paldao, palissandre de Guatemala, pau Amarelo, pau marfim, pulai, punah, ramin, saqui-saqui, sepetir, sucupira, suren, teak, tiama, tola, white meranti, white seraya and yellow meranti

44 08 39 95 - Sheets for veneering, incl. those obtained by slicing laminated wood, for plywood or for other similar laminated wood and other wood, sawn lengthwise, sliced or peeled, whether or not spliced, of a thickness of > 1 mm, of abura, afrormosia, ako, alan, andiroba, aningré, avodiré, azobé, balau, balsa, bossé clair, bossé foncé, cativo, cedro, dabema, dibétou, doussié, framiré, freijo, fromager, fuma, geronggang, ilomba, imbuia, ipé, iroko, jaboty, jelutong, jequitiba, jongkong, kapur, kempas, keruing, kosipo, kotibé, koto, louro, maçaranduba, mahogany (excl. "Swietenia spp."), makoré, mandioqueira, mansonia, merawan, mengkulang, merbau, merpauh, mersawa, moabi, niangon, nyatoh, onzabili, orey, ovengkol, ozigo, padauk, paldao, palissandre de Guatemala, pau Amarelo, pau marfim, pulai, punah, ramin, saqui-saqui, sepetir, sucupira, suren, teak, tiama, tola, white meranti, white seraya and yellow meranti

Plywood 1999-2003

Plywood, non-tropical
1999 – 2003
44 12 14 00 - Plywood consisting solely of sheets of wood <= 6 mm thick, with at least one outer ply of non-coniferous wood or other tropical wood than specified in Subheading Note 1 to this chapter (excl. sheets of compressed wood, hollow-core composite panels, inlaid wood and sheets identifiable as furniture components)

44 12 19 00 - Plywood consisting solely of sheets of wood <= 6 mm thick (excl. plywood of subheading Nos 44 12 13 and 44 12 14; sheets of compressed wood, hollow-core composite panels, inlaid wood and sheets identifiable as furniture components)

44 12 23 00 - Veneered panels and similar laminated wood with at least one outer ply of non-coniferous wood or other tropical wood than specified in Subheading Note 1 to this chapter and containing at least one layer of particle board (excl. hollow-core composite panels and sheets identifiable as furniture components)

44 12 29 20 - Veneered panels and similar laminated wood with at least one outer ply of non-coniferous wood or a tropical wood specified in Subheading Note 1 to this chapter, and containing blockboard, laminboard or battenboard (excl. sheets of compressed wood, inlaid wood and sheets identifiable as furniture components)

44 12 29 80 - Veneered panels and similar laminated wood with at least one outer ply of non-coniferous wood or of a tropical wood specified in Subheading Note 1 to this chapter, not containing particle board and without blockboard, laminboard or battenboarde (excl. plywood, sheets of compressed wood, hollow-core composite panels, parquet panels or sheets, inlaid wood and sheets identifiable as furniture components)

44 12 93 00 - Veneered panels and similar laminated wood with at least one layer of particle board (excl. wood of subheading 44 12 23, hollow-core composite panels and sheets identifiable as furniture components)

44 12 99 20 - Veneered panels and similar laminated wood with blockboard, laminboard or battenboard (excl. wood of subheading Nos 44 12 29 20 and 44 12 92 91, sheets of compressed wood, hollow-core composite panels, inlaid wood and sheets identifiable as furniture components)

44 12 99 80 - Veneered panels and similar laminated wood not containing particle board and without blockboard, laminboard or battenboard (excl. wood of subheading Nos 44 12 29 80 and 44 12 92 99, plywood, sheets of compressed wood, hollow-core composite panels, parquet panels or sheets, inlaid wood and sheets identifiable as furniture components)

Plywood, tropical

1999

44 12 13 11 - Legno compensato costituito esclusivamente da fogli di legno di spessore =< 6 mm ciascuno, avente almeno uno strato esterno di okoumè (escl. tavole di legno detto "addensato", pannelli cellulari, legno intarsiato o incrostato nonchè pannelli riconoscibili come parti di mobili)

44 12 13 19 - Legno compensato costituito esclusivamente da fogli di legno, di spessore =< 6 mm ciascuno, avente almeno uno strato esterno di dark red meranti, light red meranti, white lauan, sipo, limba, obèchè, acajou d'afrique, sapelli, virola, mahogany (swietenia spp.), palissandro di rio, palissandro di para o palissandro di rosa (escl.tavole di legno detto "addensato", pannelli cellulari, legno intarsiato o incrostato nonchè pannelli riconoscibili come parti di mobili)

2000 – 2003

44 12 13 10 - Plywood consisting solely of sheets of wood <= 6 mm thick, with at least one outer ply of one the following: dark red meranti, light red meranti, white lauan, sipo, limba, obéché, okoumé, acajou d'Afrique, sapelli, virola, mahogany "Swietenia spp.", palisssandre de Rio, palissandre de Para or palissandre de rose (excl. sheets of compressed wood, hollow-core composite panels, inlaid wood and sheets identifiable as furniture components)

1999 - 2003

44 12 13 90 - Plywood consisting solely of sheets of wood <= 6 mm thick, with at least one outer ply of a tropical wood specified in Subheading Note 1 to this chapter (excl. okoumé, dark red meranti, light red meranti, white lauan, sipo, limba, obéché, acajou d'Afrique, sapelli, virola, mahogany "Swietenia spp.", palisssandre de Rio, palissandre de Para or palissandre de rose (excl. sheets of compressed wood, hollow-core composite panels, inlaid wood and sheets identifiable as furniture components)

44 12 22 10 - Veneered panels and similar laminated wood with at least one outer ply of a tropical wood specified in Subheading Note 1 to this chapter and containing at least one layer of particle board (excl. hollow-core composite panels and sheets identifiable as furniture components)

44 12 22 91 - Veneered panels and similar laminated wood with at least one outer ply of a wood specified in Subheading Note 1 to this chapter and a blockboard, laminboard or battenboard (excl. sheets of compressed wood, inlaid wood and sheets identifiable as furniture components)

44 12 22 99 - Veneered panels and similar laminated wood with at least one outer ply of a wood specified in Subheading Note 1 to this chapter, not containing particle board and without blockboard, laminboard or battenboard (excl. plywood, sheets of compressed wood, hollow-core composite panels, inlaid wood and sheets identifiable as furniture components)

44 12 92 10 - Veneered panels and similar laminated wood with at least one ply of a tropical wood specified in Subheading Note 1 to this chapter and containing at least one layer of particle board (excl. wood of subheading 44 12 22, hollow-core composite panels and sheets identifiable as furniture components)

44 12 92 91 - Veneered panels and similar laminated wood with at least one ply of a tropical wood specified in Subheading Note 1 to this chapter, and containing blockboard, laminboard or battenboard (excl. wood of heading 44 12 22 91, sheets of compressed wood, inlaid wood and sheets identifiable as furniture components)

44 12 92 99 - Veneered panels and similar laminated wood with at least one ply of a tropical wood specified in Subheading Note 1 to this chapter, not containing particle board and without blockboard, laminboard or battenboard (excl. wood of subheading 44 12 22 99, sheets of compressed wood, hollow-core composite panels, parquet panels or sheets, inlaid wood and sheets identifiable as furniture components)

Builders Joinery 1999-2003

Windows
44 18 10 10 – Windows and frenchwindows and their frames, of okoumé, obéché, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, linba, azobé, dark red meranti, light red meranti, meranti bakou, with lauan, white meranti, white serya, yellow merasnti, alan, kerung, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, virola, mahogany "Swienia spp.", imbuia, balsa palissandre de Rio, palissandre de Para and palissandre de rose, and coniferous wood

44 18 10 50 - Windows and frenchwindows and their frames, of coniferous wood

44 18 10 90 - Windows and frenchwindows and their frames, of wood (excl. okoumé, obéché, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, dark red meranti, light red meranti, meranti bakau, white lauan, white meranti, white serya, yellow merasnti, alan, kerung, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, virola, mahogany "Swienia spp.", imbuia, balsa palissandre de Rio, palissandre de Para and palissandre de rose, and coniferous wood)

Doors
44 18 20 10 - Doors and their frames and thresholds, of okoumé, obéché, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, dark red meranti, light red meranti, meranti bakau, white lauan, white meranti, white seraya, yellow merasnti, alan, kerung, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, virola, mahogany "Swienia spp.", imbuia, balsa palissandre de Rio, palissandre de Para and palissandre de rose, and coniferous wood

44 18 20 50 - Doors and their frames and thresholds, of coniferous wood

44 18 20 80 - Doors and their frames and thresholds, of wood (excl. okoumé, obéché, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, dark red meranti, light red meranti, meranti bakau, white lauan, white meranti, white seraya, yellow merasnti, alan, kerung, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, virola, mahogany "Swienia spp.", imbuia, balsa palissandre de Rio, palissandre de Para and palissandre de rose, and coniferous wood)

Other Builders Joinery
44 18 40 00 - Wooden shuttering for concrete constructional work (excl. plywood boarding)

44 18 50 00 – Shingles and shakes, of wood

44 18 90 10 - Builders' joinery and carpentry, of glue-laminated timber (excl. windows and frenchwindows and their frames, doors and their frames and thresholds, wooden shuttering for concrete constructional work, shingles, shakes and prefabricated buildings)

44 18 90 90 - Builders' joinery and carpentry, of wood, incl. cellular wood panels, of wood (excl. of glue-laminated timber, and windows and frenchwindows and their frames, doors and their frames and thresholds, parquet panels, blocks, strips and friezes, wooden shuttering for concrete constructional work, shingles, shakes and prefabricated buildings)

Flooring 1999-2003

44 07 91 31 - Blocks, strips and friezes of oak "Quercus spp." for parquet or wood block flooring, not assembled, of a thickness of > 6 mm, planed (excl. veneered or of plywood)

44 09 20 91 - Blocks, 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, ends or faces, whether or not planed, sanded or end-joint

44 18 30 10 - Parquet panels for mosaic floors, of wood (excl. blocks, strips and friezes for parquet flooring, not assembled)

44 18 30 91 - Parquet panels composed of two or more layers of wood (excl. parquet panels for mosaic floors, and blocks, strips and friezes for parquet flooring, not assembled)

44 18 30 99 - Parquet panels of wood (excl. panels composed of two or more layers of wood, parquet panels for mosaic floors, and blocks, strips and friezes for parquet flooring, not assembled)

Mouldings 1999-2003

44 09 10 11 – Mouldings for frames for paintings, photographs, mirrors or similar objects, of coniferous wood

44 09 20 11 - Mouldings for frames for paintings, photographs, mirrors or similar objects, of non-coniferous wood

44 14 00 10 - Wooden frames for paintings, photographs, mirrors or similar objects, of tropical wood "okoumé, obeche, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, dark red meranti, light red meranti, meranti bakau, white lauan, white merant, white seraya, yellow meranti, alan, kerung, ramin, kapur, teak, jongkong, merabau,jelutong, kempas, virola, mahogany “Swietenia spp.”, imbula, balsa, palissandre de Rio, palissandre du Brésil and palissandre de Rose

44 14 00 90 - Wooden frames for paintings, photographs, mirrors or similar objects (excl. of tropical wood "okoumé, obeche, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, dark red meranti, light red meranti, meranti bakau, white lauan, white merant, white seraya, yellow meranti, alan, kerung, ramin, kapur, teak, jongkong, merabau,jelutong, kempas, virola, mahogany “Swietenia spp.”, imbula, balsa, palissandre de Rio, palissandre du Brésil and palissandre de Rose

Millwork 1999-2003

Millwork, non-tropical
1999 – 2003
44 04 10 00 - Hoopwood; split poles; piles, pickets and stakes of wood, pointed but not sawn lengthwise; wooden sticks, roughly trimmed but not turned, bent or otherwise worked, suitable for the manufacture of walking-sticks, umbrellas, tool handles or the like; chipwood and the like, of coniferous wood (excl. hoopwood sawn lengthwise and carved or notched at the ends; brushmounts, lasts; coniferous wood in general)

44 04 20 00 - Hoopwood; split poles; piles, pickets and stakes of wood, pointed but not sawn lengthwise; wooden sticks, roughly trimmed but not turned, bent or otherwise worked, suitable for the manufacture of walking-sticks, umbrellas, tool handles and the like; chipwood and the like (excl. hoopwood sawn lengthwise and carved or notched at the ends; brushmounts, lasts; coniferous wood in general)

44 05 00 00 - Wood wool; wood flour, i.e. wood powder able to pass through a fine, 0,63 mm mesh, sieve with a residue of <= 8% by weight

44 13 00 00 - Metallized wood and other densified wood in blocks, plates, strips or profile shapes

44 15 10 10 - Cases, boxes, crates, drums and similar packings, of wood

44 15 10 90 - Cable drums of wood

44 15 20 20 - Pallets and pallet collars, of wood

44 15 20 90 - Box pallets and other load boards, of wood (excl. containers specially designed and equipped for one or more modes of transport; flat pallets and pallet collars)

44 16 00 00 - Casks, barrels, vats, tubs and other coopers' products parts thereof, of wood, incl. staves

44 17 00 00 - Tools, tool bodies, tool handles, broom or brush bodies and handles, of wood; boot or shoe lasts and shoetrees, of wood (excl. forms used in the manufacture of hats, forms of heading 8480, other machines and machine components, of wood)

44 19 00 90 - Tableware and kitchenware, of wood (excl. okoumé, obeche, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, dark red meranti, light red meranti, meranti bakau, white lauan, white meranti, white seraya, yellow meranti, alan, keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, virola, mahogany [Swietenia spp.], imbuia, balsa, palissandre de Rio, palissandre du Brésil and palissandre de Rose; objects for furniture, ornamental objects, cooper's products, parts for wooden tableware and kitchenware, brushes, paintbrushes, brooms and hand sieves)

44 20 10 19 - Statuettes and other ornaments, of wood (excl. okoumé, obeche, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, dark red meranti, light red meranti, meranti bakau, white lauan, white meranti, white seraya, yellow meranti, alan, keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, virola, mahogany [Swietenia spp.], imbuia, balsa, palissandre de Rio, palissandre du Brésil and palissandre de Rose; wood marquetry and inlaid wood)

1999
44 20 90 11 - Legno tropicale definito nella nota due di questo capitolo, intarsiato e incrostato

44 20 90 19 - Legno intarsiato e legno incrostato, diverso da quello della voce precedente

2000 – 2003
44 20 90 10 - Wood marquetry and inlaid wood (excl. statuettes and other ornaments, articles of furniture, lamps and lighting fittings and parts thereof)

1999 – 2003
44 20 90 99 - Caskets and cases for jewellery or cutlery, and similar articles and articles of furniture (excl. okoumé, obeche, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, dark red meranti, light red meranti, meranti bakau, white lauan, white meranti, white seraya, yellow meranti, alan, keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, virola, mahogany "Swietenia spp.", imbuia, balsa, palissandre de Rio, palissandre de Para and palissandre de Rose; statuettes and other ornaments, wood marquetry and inlaid wood, articles of furniture, lamps and lighting fittings and parts thereof)

44 21 10 00 - Clothes hangers of wood

44 21 90 91 - Articles of fibreboard, n.e.s.

1999
44 21 90 10 - Tubetti, spole, rocchetti e oggetti simili, di legno tornito

44 21 90 30 - Rulli per serrande avvolgibili, di legno, con o senza molle

44 21 90 50 - Legno preparato per fiammiferi; zeppe di legno per calzature

44 21 90 70 - Manici per posate, di legno

44 21 90 99 - Lavori di legno, n.n.a.

2000 – 2003
44 21 90 98 - Articles of wood, n.e.s.

1999 – 2003
94 06 00 10 - Prefabricated buildings made entirely or mainly of wood, whether or not complete or already assembled

Millwork, tropical
1999 – 2003
44 19 00 10 - Tableware and kitchenware, of okoumé, obéché, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, dark red meranti, light red meranti, meranti bakau, white lauan, white meranti, white seraya, yellow meranti, alan, keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, virola, mahogany "Swietenia spp.", imbuia, balsa, palissandre de Rio, palissandre de Para and palissandre de rose

44 20 10 11 - Statuettes and other ornaments, of okoumé, obéché, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, dark red meranti, light red meranti, meranti bakau, white lauan, white meranti, white seraya, yellow meranti, alan, keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, virola, mahogany "Swietenia spp.", imbuia, balsa, palissandre de Rio, palissandre de Para and palissandre de rose (excl. wood marquetry and inlaid wood)

44 20 90 91 - Caskets and cases for jewellery or cutlery, and similar articles and articles of furniture of okoumé, obeche, sapelli, sipo, acajou d'Afrique, makoré, iroko, tiama, mansonia, ilomba, dibétou, limba, azobé, dark red meranti, light red meranti, meranti bakau, white lauan, white meranti, white seraya, yellow meranti, alan, keruing, ramin, kapur, teak, jongkong, merbau, jelutong, kempas, virola, mahogany "Swietenia spp.", imbuia, balsa, palissandre de Rio, palissandre de Para and palissandre de Rose; statuettes and other ornaments, wood marquetry and inlaid wood, articles of furniture, lamps and lighting fittings and parts thereof

Furniture 1999-2003

Furniture (excluding vehicle furniture and mattresses)

Furniture in other materials than wood
1999 - 2003
94 01 30 10 – Swivel seats with variable height adjustments, upholstered, with backrest and fitted with castors or gliders (excl. medical, surgical and dental)

94 01 30 90 - Swivel seats with variable height adjustments (excl. upholstered, with backrest and fitted with castors or gliders, medical, surgical, dental or veterinary, and hairdressers' chairs)

94 01 40 00 – Seats, convertible into beds (excl. garden seats and camping equipment, and medical, dental or surgical furniture)

94 01 50 00 – Seats of cane, osier, bamboo or similar materials

94 01 71 00 – Upholstered seats, with metal frames (excl. seats for aircraft or motor vehicles, swivel seats with variable height adjustments and medical, dental or surgical furniture)

94 01 79 00 – Seats, with metal frames (excl. upholstered, swivel seats with variable height adjustments and medical, dental or surgical furniture)

94 01 80 00 - Seats, NES

94 01 90 80 – Parts of seats, not of wood, NES

94 02 10 00 – Dentists, barbers or similar chairs having rotating as well as both reclining and elevating movements, and parts thereof, NES

94 02 90 00 – Operating tables, examination tables, and other medical, dental, surgical or veterinary furniture (excl. dentists' or similar chairs, special tables for X-ray examination, and stretchers and litters, incl. trolley-stretchers)

94 03 10 10 – Drawing tables for offices, with metal frames (excl. tables with special fittings for drafting of heading 9017)

94 03 10 51 – Office desks, with metal frames

94 03 10 59 – Metal furniture for offices, of <= 80 cm in height (excl. desks and drawing tables)

94 03 10 91 – Metal cupboard with doors, shutters or flaps, for offices, of > 80 cm in height

94 03 10 93 – Metal filing, card-index and other cabinets, for offices, of > 80 cm in height

94 03 10 99 – Metal furniture for offices, of > 80 cm in height (excl. drawing tables, cupboards with doors, shutters or flaps, and seats)

94 03 20 91 – Metal beds (excl. for civil aircraft and hospital beds with mechanical fittings)

94 03 20 99 – Metal furniture (excl. for civil aircraft, for offices, medical, surgical, dental or veterinary furniture, beds and seats)

94 03 70 90 – Furniture of plastic (excl. for civil aircraft, medical, dental, surgical or veterinary, and seats)

94 03 80 00 – Furniture of cane, osier, bamboo or similar materials (excl. of metal, wood and plastics)

94 03 90 10 – Parts of furniture, of metal, NES (excl. seats)

94 03 90 90 – Parts of furniture, NES (excl. seats, and of metal and wood)

Wooden Furniture
1999 - 2003
Seats with Wooden Frame
94 01 61 00 – Upholstered seats, with wooden frames (excl. convertible into beds)

94 01 69 00 – Seats, with wooden frames (excl. upholstered)

Wooden Office Furniture
94 03 30 11 – Desks for offices, with wooden frames

94 03 30 19 – Wooden furniture for offices , of <= 80 cm in height (excl. desks and seats)

94 03 30 91 – Wooden cupboard for offices of > 80 cm in height

94 03 30 99 – Wooden furniture for offices of > 80 cm in height (excl. cupboards)

Wooden Kitchen Furniture
94 03 40 10 – Fitted kitchen units

94 03 40 90 – Wooden furniture of a kind used in kitchen (excl. seats and fitted kitchen units)

Wooden Bedroom Furniture
94 03 50 00 – Wooden furniture for bedrooms (excl. seats)

Wooden Furniture NES
94 03 60 10 – Wooden furniture for dining rooms and living rooms (excl. seats)

94 03 60 30 – Wooden furniture for shops (excl. seats)

94 03 60 90 – Wooden furniture (excl. for offices or shops , kitchens, dining roms, living rooms and seats)

Parts of Wooden Furniture, NES
94 01 90 30 – Parts of seats, NES.

94 03 90 30 – Parts of furniture, NES

Appendix 8

Trade statistics (ISTAT)

Statistics of Intra- and Extra-EU Trade Flows:
Statistics of foreign trade flows are focussed on value and amount of goods traded between Italy and other countries and are performed - as regards trade flows with non-EU Member States - in accordance with the criteria set out in EEC Council Regulations no. 1172/95 and Commission Regulations no. 1917/00, whilst trade flows with EU Member States are assessed in accordance with EEC Council Regulations no. 3330/91 and Commission Regulations no. 1901/00.

Data collection is performed differently depending on whether the information providers are economic operators carrying out commercial transactions with extra-EU countries or with EU countries. As regards trade flows with extra-EU countries, the information is derived from the Single Administrative Document (SAD) which is compiled by operators for each individual transaction. As to trade flows with EU countries, the need for simplified procedures to ensure free movement of goods in the internal market led to replacing collection via customs declarations by the Intrastat system. In the latter system, data collection is based on the recapitulative declarations of movements submitted by economic operators to the geographically competent customs offices. In particular, operators whose foreign trade flows for a given year are or are expected to be in excess of the thresholds laid down in the relevant decree (protocol no. 8703) of the Finance Ministry of 27.10.00 - making up about 27% of the total number of operators, though covering about 98% of trade flows - are required to compile the Intrastat form monthly; the remaining operators may provide information on a quarterly or yearly basis. The SAD as well as the Intrastat form serve both fiscal and statistical purposes.

Foreign trade information is based on the so-called special trade system, which includes:
a) on dispatch, national goods and goods released for free circulation that are:
- exported with final destination;
- on board foreign ships or aircrafts as stores or supplies;
- temporarily exported for manufacturing products to be re-imported, for finishing purposes or for repair.

Additionally, re-exports of foreign goods that have already been imported temporarily are regarded as exports.
b) on arrival, foreign goods and goods from customs warehouses that are:
- imported with final destination;
- temporarily imported for manufacturing products to be re-exported, for finishing purposes or for repair.
Additionally, re-imports of national goods that have already been exported temporarily are regarded as imports.

The special trade system does not include foreign goods placed in a customs warehouse and not released for consumption and/or temporary import, goods returned to a foreign country and those in transit on the national territory.
The following items are excluded from foreign trade statistics:
a) means of payment which are legal tender, and securities;
b) so-called monetary gold;
c) emergency aid for disaster areas;
d) because of the diplomatic or similar nature of their intended use:
1. goods benefiting from diplomatic and consular or similar immunity;
2. gifts to Heads of State or to members of a government or Parliament;
3. items being circulated within the framework of administrative mutual aid;
e) provided that they are not the subject of a commercial transaction:
1. decorations, honorary distinctions and prizes, commemorative badges and medals;

2. travel equipment, provisions and other items, including sports equipment, intended for personal use or consumption, which accompany, precede or follow the traveller;
3. bridal outfits, items involved in moving house, or heirlooms;
4. coffins, funerary urns, ornamental funerary articles and items for the upkeep of graves and funeral monuments;
5. printed advertising material, instructions for use, price lists and other advertising items;
6. goods which have become unusable, or which cannot be used for industrial purposes;
7. ballast;
8. postage stamps;
9. pharmaceutical products used at international sporting events;

f) products used as part of exceptional common measures for the protection of persons or the environment;

g) goods which are the subject of non-commercial traffic between persons resident in the adjacent zone of the Member States (frontier traffic); products obtained by agricultural producers on properties located outside, but adjacent to the statistical territory within which they have their principal undertaking;

h) provided that the trade is temporary, goods that are imported or exported for the repair of means of transport, containers and related transport equipment, without being subject to finishing, as well as the parts replaced during the repairs;

i) goods dispatched to national armed forces stationed outside the statistical territory as well as goods received which had been conveyed outside the statistical territory by the national armed forces, as well as goods acquired or disposed of on the statistical territory of a Member State by the armed forces of a foreign State which are stationed there;

j) goods used as carriers of information such as floppy disks, computer tapes, films, plans, audio- and video-tapes, CD-ROMs which are traded in order to provide information, where developed to order for a particular client or where they are not the subject of a commercial transaction; goods supplied to complement a good used as a carrier of information, for instance as an update, and for which the consignee is not invoiced;

k) satellite launchers:
— on dispatch and on arrival pending launching into space,
— at the time of launching into space.

In addition to value and quantity, the latter being expressed in Kgs and/or in any of the supplementary units of measurement specified by Eurostat, the main information included in the declaration forms for goods that are the subject of transaction concerns:
commodity code (t ex CN8)
country of origin
country of departure and final destination
administrative provinces of departure and final destination
mode of transport
terms of delivery
nature of the transaction

Periodicity: Yearly; monthly

Timeliness: one month; current year provisional

Appendix 9

Trade statistics (ISTAT)			1999	2000	2001	2002	2003
Industrial Roundwood	Value (1000 USD)	Exports	9300	10618	8368	7321	5282
		Imports	524140	504175	436621	419422	472822
	Volume (m3)	Exports	16553	22522	22747	16038	10631
		Imports	5128972	5626646	5195358	4702993	4484193
Industrial Roundwood, Coniferous	Value (1000 USD)	Exports	1197	1055	708	711	504
		Imports	179679	167898	149125	157723	187097
	Volume (m3)	Exports	4116	4013	2994	2959	2744
		Imports	2162163	2579785	2302378	2337303	2232865
Industrial Roundwood, Non-coniferous	Value (1000 USD)	Exports	7549	9298	7128	5883	4216
		Imports	263833	256473	213779	196664	211730
	Volume (m3)	Exports	11978	18185	18973	11930	7106
		Imports	2674634	2732465	2617055	2132961	2051407
Industrial Roundwood, Tropical	Value (1000 USD)	Exports	554	264	532	727	563
		Imports	80628	79804	73718	65035	73995
	Volume (m3)	Exports	459	324	780	1149	781
		Imports	292175	314396	275925	232729	199921
Sawn Wood	Value (1000 USD)	Exports			108070	111700	107263
		Imports			1473571	1566458	1856510
	Volume (m3)	Exports			209672	192004	164872
		Imports			7989139	7721863	7741404
Sawn Wood, Coniferous	Value (1000 USD)	Exports	12756	11539	12400	13704	12922
		Imports	1029437	971968	857789	943783	1142154
	Volume (m3)	Exports	33130	45067	53105	53117	40498
		Imports	6100187	6078679	5845290	6017581	6074503
Sawn Wood, Non-coniferous	Value (1000 USD)	Exports		114137	84253	83525	80241
		Imports		539128	449420	452515	504431
	Volume (m3)	Exports		162336	140013	120219	109880
		Imports		1618895	1757973	1325813	1280827
Sawn Wood, Tropical	Value (1000 USD)	Exports			11417	14471	14100
		Imports			166362	170160	209925
	Volume (m3)	Exports			16554	18668	14494
		Imports			385876	378469	386074
Veneer	Value (1000 USD)	Exports	81167	85840	86612	98192	116184
		Imports	220194	224626	212143	236571	279272
	Volume (Ton)	Exports	17650	20899	18376	20981	20904
		Imports	133332	150049	132282	138448	143903
Veneer, Non-Tropical	Value (1000 USD)	Exports	69241	72302	72220	77895	99210
		Imports	172686	171328	155126	180137	205657
	Volume (Ton)	Exports	13347	17114	13555	14452	16692
		Imports	103369	112835	93459	102311	97733
Veneer, Tropical	Value (1000 USD)	Exports	11926	13538	14391	20297	16974
		Imports	47508	53297	57017	56434	73615
	Volume (Ton)	Exports	4303	3785	4821	6529	4212
		Imports	29963	37214	38823	36137	46170
Plywood	Value (1000 USD)	Exports	129578	117780	125664	124033	144213

		Imports	197110	190281	192924	221866	250195

Appendix 9 cont.

	Volume (m3)	Exports	183573	284567	225853	203888	208473
		Imports	450812	464920	488220	558222	558470
Plywood, Non-Tropical	Value (1000 USD)	Exports	99354	87917	96022	94577	109614
		Imports	154300	150693	147831	170979	183549
	Volume (m3)	Exports	142469	236692	175833	154915	158324
		Imports	377019	388805	397840	459413	437360
Plywood, Tropical	Value (1000 USD)	Exports	30224	29863	29643	29456	34598
		Imports	42810	39588	45093	50886	66647
	Volume (m3)	Exports	41104	47875	50020	48973	50149
		Imports	73793	76115	90380	98809	121110
Builders Joinery	Value (1000 USD)	Exports	146796	149449	164857	175265	221168
		Imports	151167	159898	170336	211269	269229
	Volume (Ton)	Exports	36701	42096	46417	53805	52365
		Imports	121526	151941	163465	199922	236233
Flooring	Value (1000 USD)	Exports	44426	59462	52902	51919	53022
		Imports	124755	129729	127034	138763	188813
	Volume (Ton)	Exports	25160	38914	26009	21971	16666
		Imports	71593	82690	80817	83435	95772
Mouldings	Value (1000 USD)	Exports	212584	216321	208479	205176	214441
		Imports	11636	12615	12270	10668	13650
	Volume (Ton)	Exports	30792	37171	35808	34484	29727
		Imports	4012	5305	5392	5633	5311
Millwork	Value (1000 USD)	Exports	314928	285236	294230	288823	306239
		Imports	282521	315250	305410	330071	385386
	Volume (Ton)	Exports	193957	194629	235451	224678	178166
		Imports	508867	641529	639013	626834	632478
Wooden Furniture	Value (1000 USD)	Exports	5554148	5510245	5511335	5747038	6424960
		Imports	407323	415158	415503	471592	598827
	Volume (Ton)	Exports	1061859	1218294	1228251	1197360	1155646
		Imports	183972	218238	226602	248559	266176

Appendix 10

FAO Trade statistics			1999	2000	2001	2002	2003
Industrial Roundwood	Value (1000 USD)	Exports	2826	3269	2867	2509	1924
		Imports	517275	499511	434122	419077	462611
	Volume (m3)	Exports	15000	24000	23000	15959	10664
		Imports	4952000	5805000	5211000	4702993	4357573
Industrial Roundwood, Coniferous/Ind Rwd Wir, Coniferous	Value (1000 USD)	Exports	1406	1219	915	711	498
		Imports	179277	167233	149805	156656	182303
	Volume (m3)	Exports	3000	4000	3000	2959	2664
		Imports	2093000	2585000	2287000	2337303	2152660
Industrial Roundwood, Non-Coniferous/Ind Rwd Wir, Non-Coniferous, Other	Value (1000 USD)	Exports	911	1786	1420	1071	888
		Imports	257371	252618	210679	197374	206395
	Volume (m3)	Exports	11560	19680	19000	11851	7266
		Imports	2567000	2906000	2648000	2132961	2004937
Industrial Roundwood, Tropical/Ind Rwd Wir, Non-Coniferous, Tropical	Value (1000 USD)	Exports	509	264	532	727	538
		Imports	80627	79660	73638	65047	73913
	Volume (m3)	Exports	440	320	1000	1149	734
		Imports	292000	314000	276000	232729	199976
Sawn Wood	Value (1000 USD)	Exports	196761	135635	107424	111996	103726
		Imports	1754523	1651722	1452214	1564409	1791075
	Volume (m3)	Exports	212000	208000	197000	195553	143917
		Imports	7605000	8380000	7785000	7935707	7563099
Sawn Wood, Coniferous	Value (1000 USD)	Exports	40536	11425	12313	13708	11048
		Imports	993924	950202	836862	936368	1074953
	Volume (m3)	Exports	51000	41000	50000	53117	30369
		Imports	5551000	6304000	5948000	6017581	5700485
Sawn Wood, Non-coniferous	Value (1000 USD)	Exports	156225	124210	95111	98288	92678
		Imports	760599	701520	615352	628041	716122
	Volume (m3)	Exports	161000	167000	147000	142436	113548
		Imports	2054000	2076000	1837000	1918126	1862614
Veneer	Value (1000 USD)	Exports	77286	84253	84827	98020	107736
		Imports	215900	222092	209818	236027	271091
	Volume (m3)	Exports	22000	28000	25000	27911	26780
		Imports	175000	199000	174000	184142	189252
Plywood	Value (1000 USD)	Exports	127144	114454	122193	123770	132057
		Imports	193303	188140	191432	221496	244606
	Volume (m3)	Exports	139000	146000	125000	203888	194858
		Imports	367000	422000	425000	558222	550837

Appendix 11

EFI Trade statistics			1999	2000	2001	2002
Industrial Roundwood	Value (1000 USD)	Exports	9407	10396	9202	7671
		Imports	526159	426578	436297	419406
	Volume (m3)	Exports	118960	151230	171249	133713
		Imports	5480033	6235350	6343615	6077707
Industrial Roundwood, Coniferous	Value (1000 USD)	Exports	1243	1059	833	713
		Imports	180225	167811	147935	156550
	Volume (m3)	Exports	20408	17692	13977	10993
		Imports	2205952	2617361	2472636	2474059
Industrial Roundwood, Non-coniferous	Value (1000 USD)	Exports	8164	9337	8369	6958
		Imports	345934	258767	288362	262856
	Volume (m3)	Exports	98552	133538	157272	122720
		Imports	3274081	3617989	3870979	3603648
Sawn Wood	Value (1000 USD)	Exports	352418	337838	306957	313605
		Imports	1941326	1673010	1624879	1736319
	Volume (m3)	Exports	495083	576022	654948	578858
		Imports	8312273	8162777	7924044	8132799
Sawn Wood, Coniferous	Value (1000 USD)	Exports	76984	64960	61294	63742
		Imports	1085018	1001645	891678	980097
	Volume (m3)	Exports	107007	144816	164808	230008
		Imports	5944935	6032519	5727313	5987975
Sawn Wood, Non-coniferous	Value (1000 USD)	Exports	275434	272878	245663	249863
		Imports	856308	671365	733201	756222
	Volume (m3)	Exports	388076	431206	490140	348850
		Imports	2367338	2130258	2196731	2144824
Veneer	Value (1000 USD)	Exports	84124	85702	87168	98216
		Imports	220376	224016	211554	235923
	Volume (m3)	Exports	63158	77389	66001	40344
		Imports	153304	166915	155240	162907
Veneer, Non-tropical	Value (1000 USD)	Exports	73821	73054	72760	77908
		Imports	173106	171201	154626	179554
	Volume (m3)	Exports	31788	41796	37395	31487
		Imports	108742	111283	96818	110239
Veneer, Tropical	Value (1000 USD)	Exports	10303	12648	14408	20308
		Imports	47270	52815	56928	56369
	Volume (m3)	Exports	31370	35593	28606	8857
		Imports	44562	55632	58422	52668
Plywood	Value (1000 USD)	Exports	129762	118425	126977	126848
		Imports	196631	189797	192566	221378
	Volume (m3)	Exports	151163	162365	183049	176349
		Imports	374902	417081	428415	494187
Plywood, Non-tropical	Value (1000 USD)	Exports	99314	88479	97274	97263
		Imports	153906	150122	147517	170637
	Volume (m3)	Exports	120212	123102	145464	138475
		Imports	311014	352462	356258	414288
Plywood, Tropical	Value (1000 USD)	Exports	30448	29946	29703	29585

Appendix 11 cont.						
		Imports	42725	39675	45049	50741
	Volume (m3)	Exports	30951	39263	37585	37874
		Imports	63888	64619	72157	79899
Builders Joinery	Value (1000 USD)	Exports	177955	183287	194086	202260
		Imports	190110	198734	206804	247964
	Volume (ton)	Exports	75010	88922	84538	83754
		Imports	139117	172198	182881	215991
Wooden Furniture	Value (1000 USD)	Exports	4967576	4922199	4928878	5100581
		Imports	313903	324713	322245	364777
	Volume (ton)	Exports	903832	1017492	1021355	976696
		Imports	110837	135613	141133	155788

Appendix 12

Example of economic short-term indicators (ISTAT)

PRODUCER PRICES (monthly):
Manufacture of wood and wood products (raw data)
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials (raw data)
Sawmilling and planing of wood; impregnation of wood (raw data)
Manufacture of veneer sheets; manufacture of plywood, laminboard, particle board, fibre board and other panels and boards (raw data)
Manufacture of builders' carpentry and joinery (raw data)
Manufacture of wooden containers (raw data)
Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials (raw data)
Manufacture of furniture (raw data)

INDUSTRY (monthly):
Turnover (national turnover; foreign turnover; total turnover)
Manufacture of wood and wood products (raw data;)
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials (raw data)
Sawmilling and planing of wood; impregnation of wood (raw data)
Manufacture of veneer sheets; manufacture of plywood, laminboard, particle board, fibre board and other panels and boards (raw data)
Manufacture of builders' carpentry and joinery (raw data)
Manufacture of wooden containers (raw data)
Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials (raw data)
Manufacture of furniture (raw data)

New orders (national new orders; foreign new orders; total new orders)
Manufacture of wood and wood products (raw data;)
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials (raw data)
Sawmilling and planing of wood; impregnation of wood (raw data)
Manufacture of veneer sheets; manufacture of plywood, laminboard, particle board, fibre board and other panels and boards (raw data)
Manufacture of builders' carpentry and joinery (raw data)
Manufacture of wooden containers (raw data)
Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials (raw data)
Manufacture of furniture (raw data)

Industrial production
Manufacture of wood and wood products (raw data; working days adjusted)
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials (raw data; working days adjusted)
Sawmilling and planing of wood; impregnation of wood (raw data; working days adjusted)
Manufacture of veneer sheets; manufacture of plywood, laminboard, particle board, fibre board and other panels and boards (raw data; working days adjusted)
Manufacture of builders' carpentry and joinery (raw data; working days adjusted)
Manufacture of wooden containers (raw data; working days adjusted)

Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials (raw data; working days adjusted)
Manufacture of other products of wood (raw data; working days adjusted)
Manufacture of furniture (raw data; working days adjusted)
Manufacture of chairs and seats (raw data; working days adjusted)
Manufacture of other office and shop furniture (raw data; working days adjusted)
Manufacture of other kitchen furniture (raw data; working days adjusted)
Manufacture of other furniture (raw data; working days adjusted)

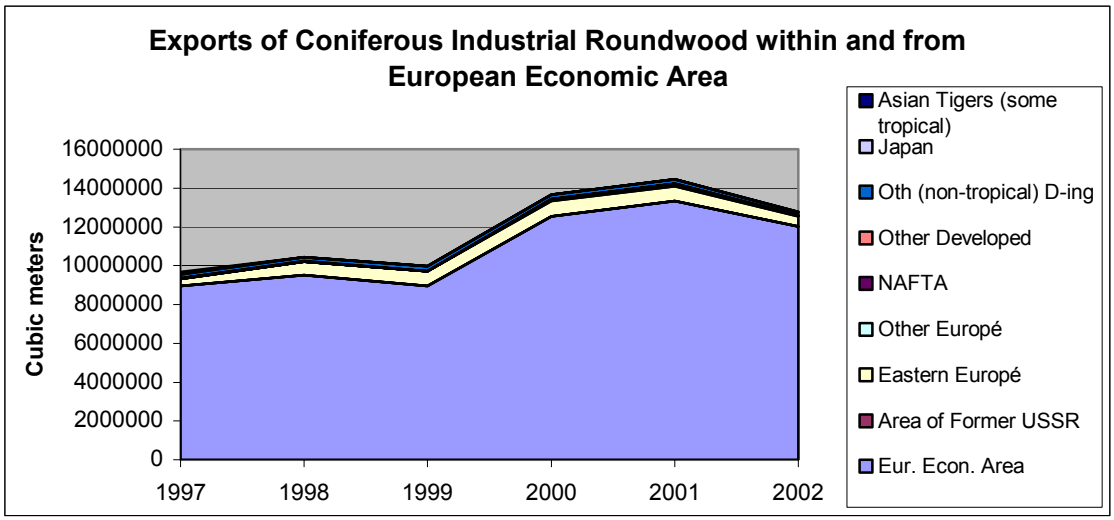
Order stock (national; order stock – foreign; order stock – total)
Manufacture of wood and wood products (raw data)
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials (raw data)
Sawmilling and planing of wood; impregnation of wood (raw data)
Manufacture of veneer sheets; manufacture of plywood, laminboard, particle board, fibre board and other panels and boards (raw data)
Manufacture of builders' carpentry and joinery (raw data)
Manufacture of wooden containers (raw data)
Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials (raw data)
Manufacture of furniture (raw data)

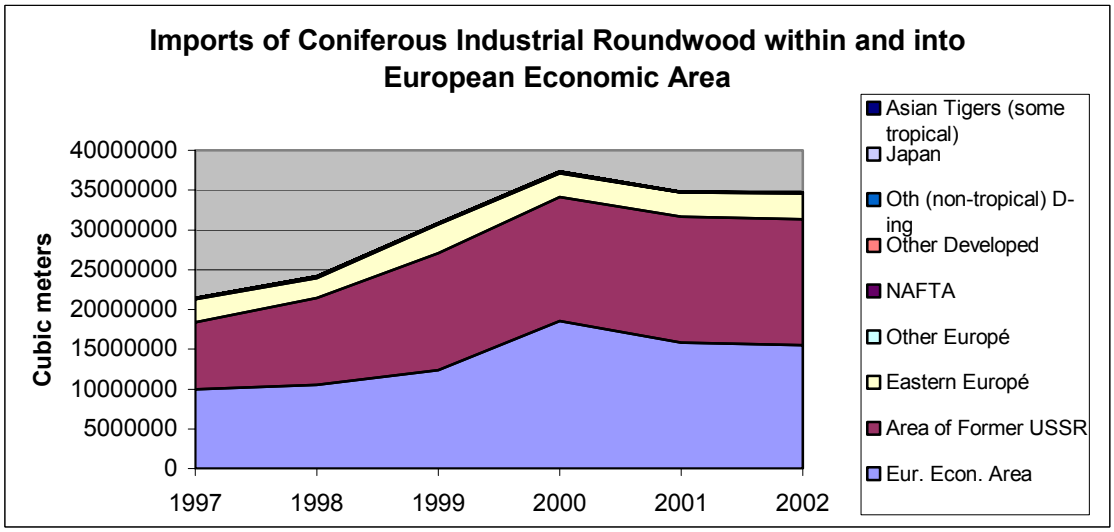
Wages (wages and hourly wages according to collective contracts indexes; white collar; blue collar; blue end white collar)
Manufacture of wood and wood products (raw data)
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials (raw data)
Sawmilling and planing of wood; impregnation of wood (raw data)
Manufacture of veneer sheets; manufacture of plywood, laminboard, particle board, fibre board and other panels and boards (raw data)
Manufacture of builders' carpentry and joinery (raw data)
Manufacture of wooden containers (raw data)
Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials (raw data)
Manufacture of furniture (raw data)

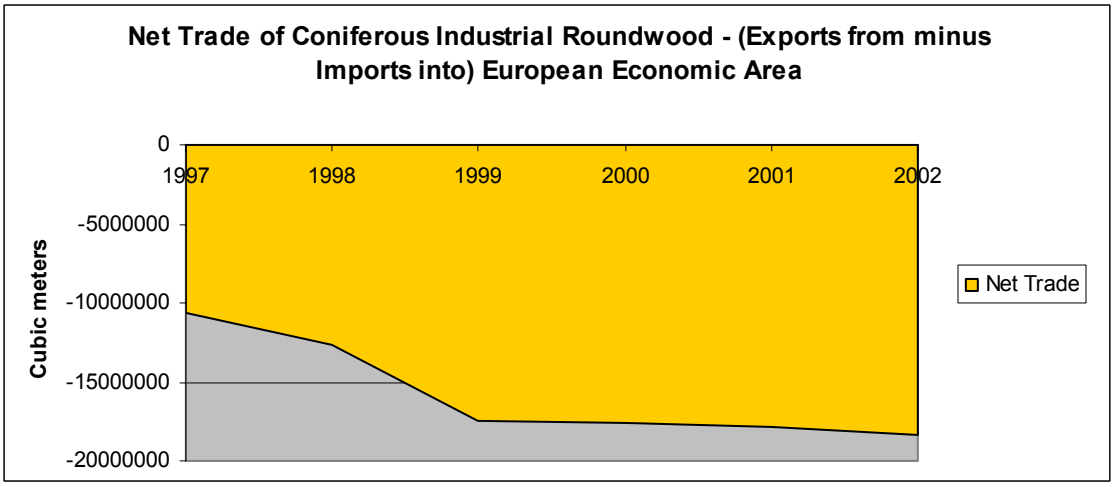
CONSTRUCTION (quarterly):
Production in construction (raw data, seasonally adjusted data; working day adjusted data)
Work cost per product unit (seasonally adjusted data)
Variable unit costs (seasonally adjusted data)
Gross wages (raw data; seasonally adjusted data)
Total labour units (raw data; seasonally adjusted data)
Current prices (raw data; seasonally adjusted data; working days and seasonally adjusted data)
Constant prices (raw data; seasonally adjusted data; working days adjusted data; working days and seasonally adjusted data)

Appendix 13 EU-wide review of wood and wood products trade
Appendix 13.1

Coniferous Industrial Roundwood 1997-2002

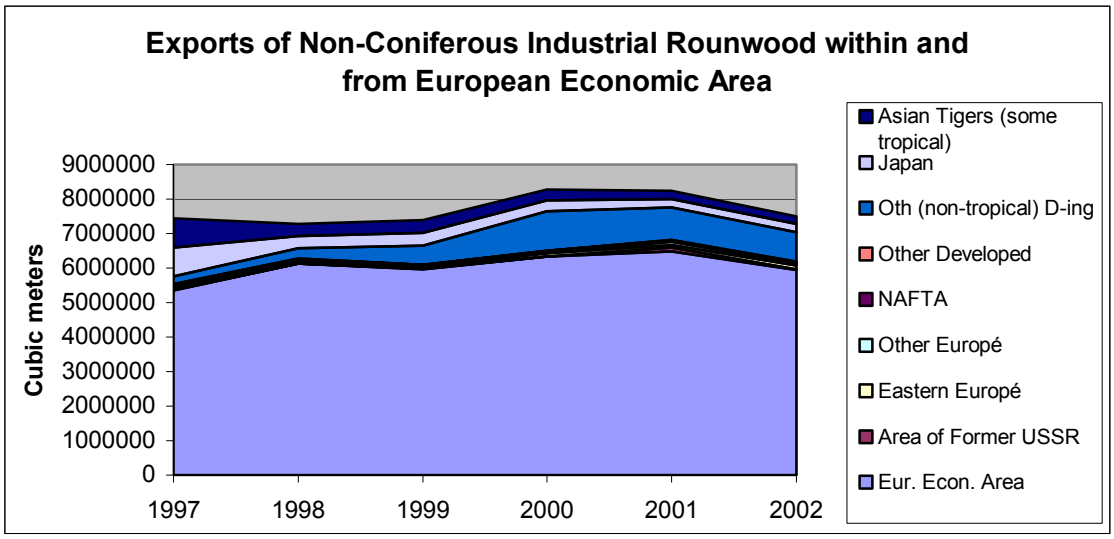


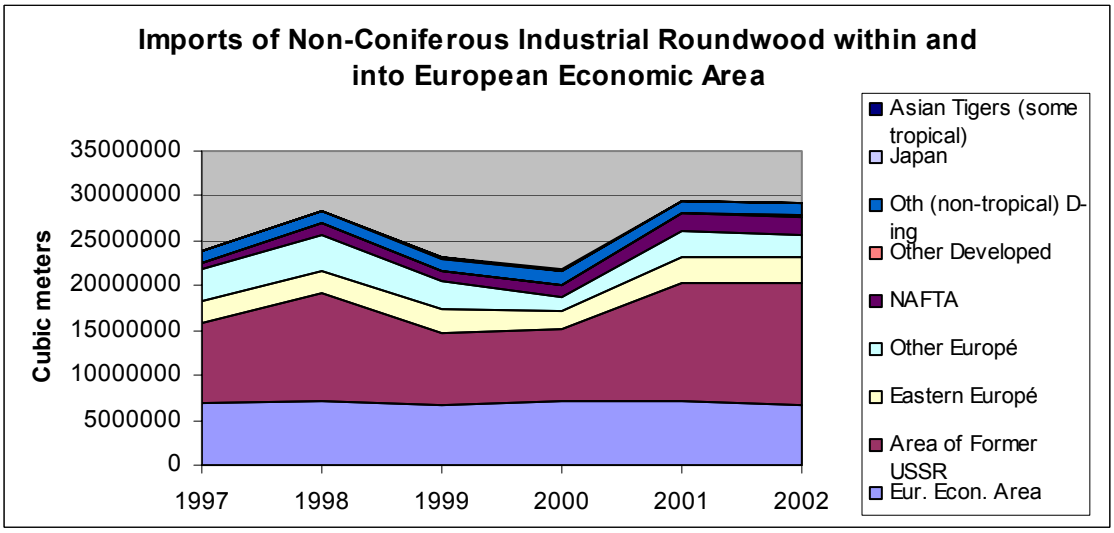


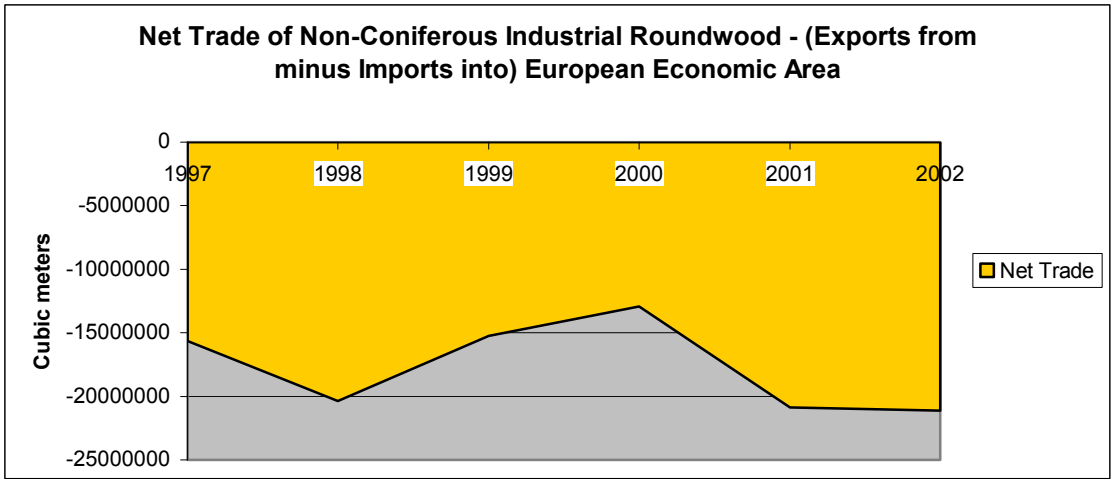


Appendix 13.2

Non-coniferous Industrial Roundwood

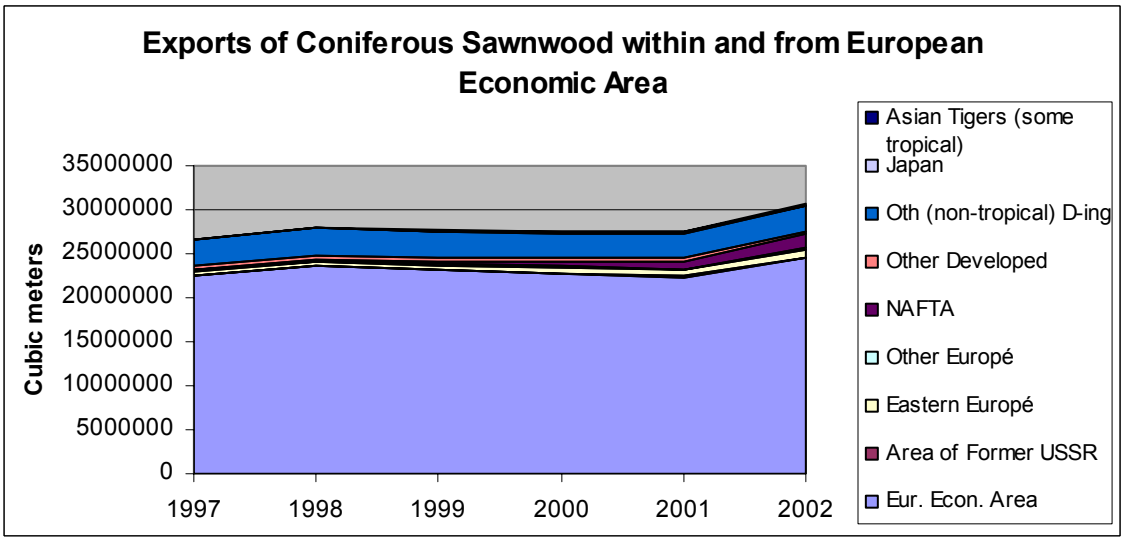


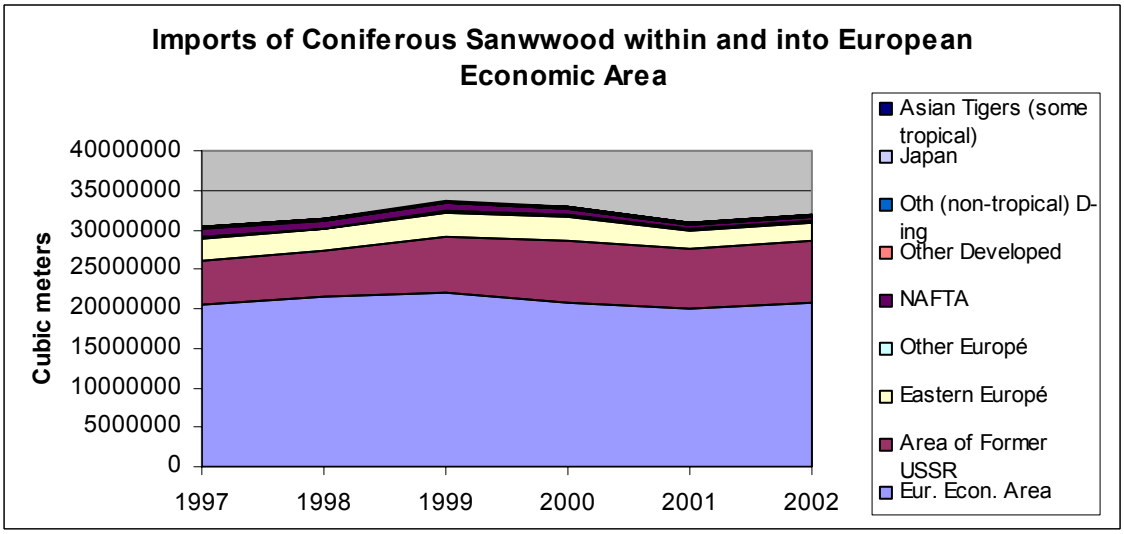


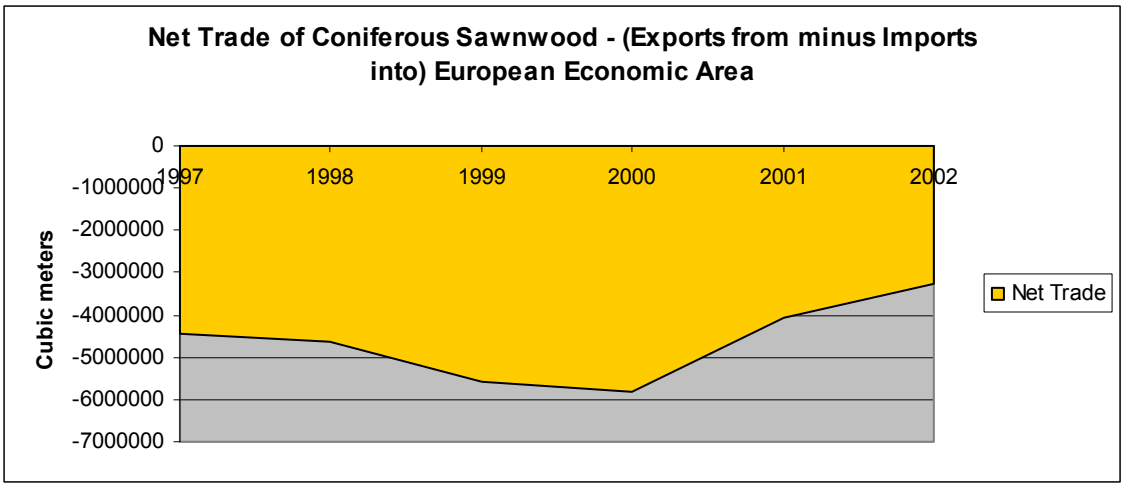


Appendix 13.3

Coniferous Sawnwood

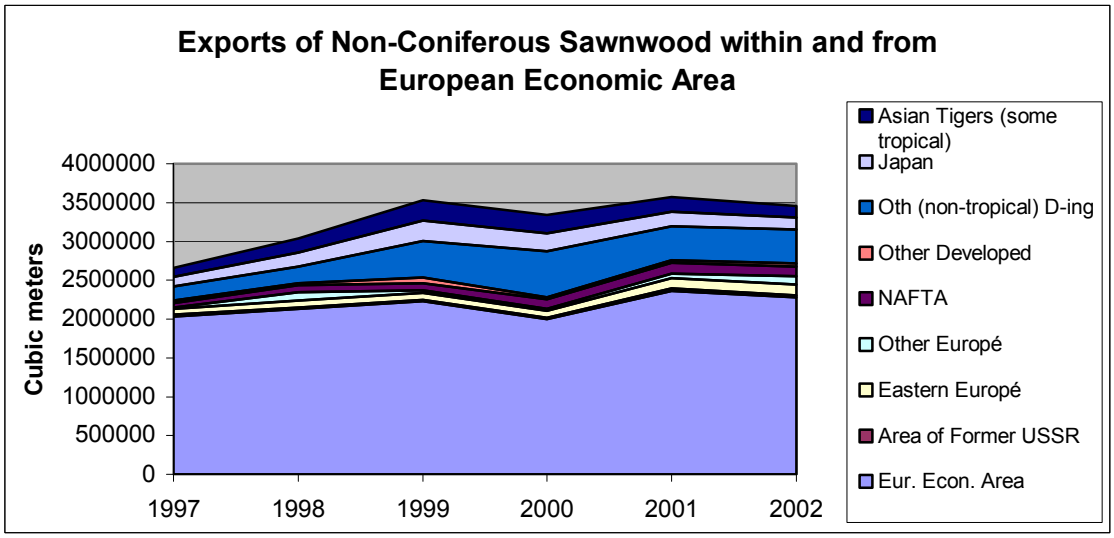


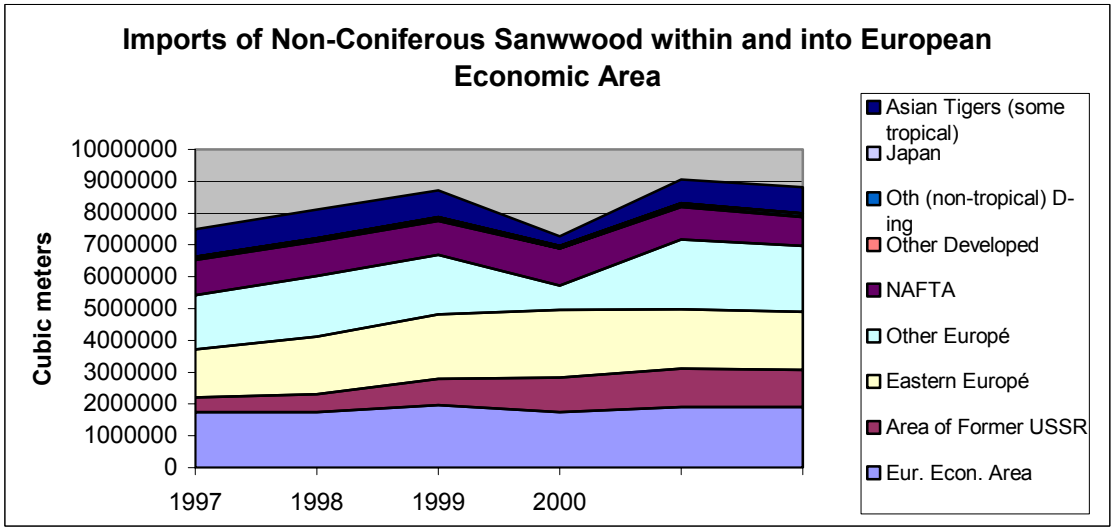


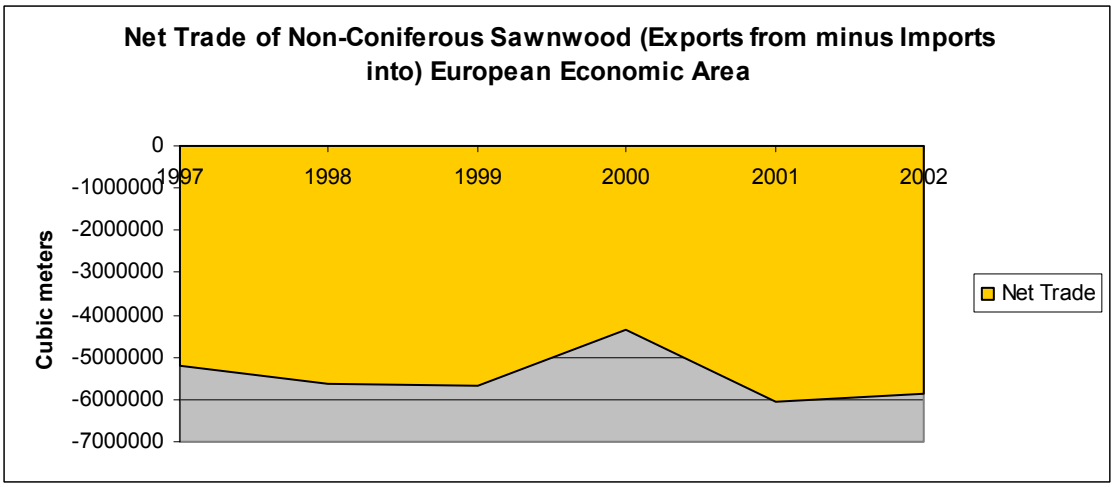


Appendix 13.4

Non-coniferous sawnwood

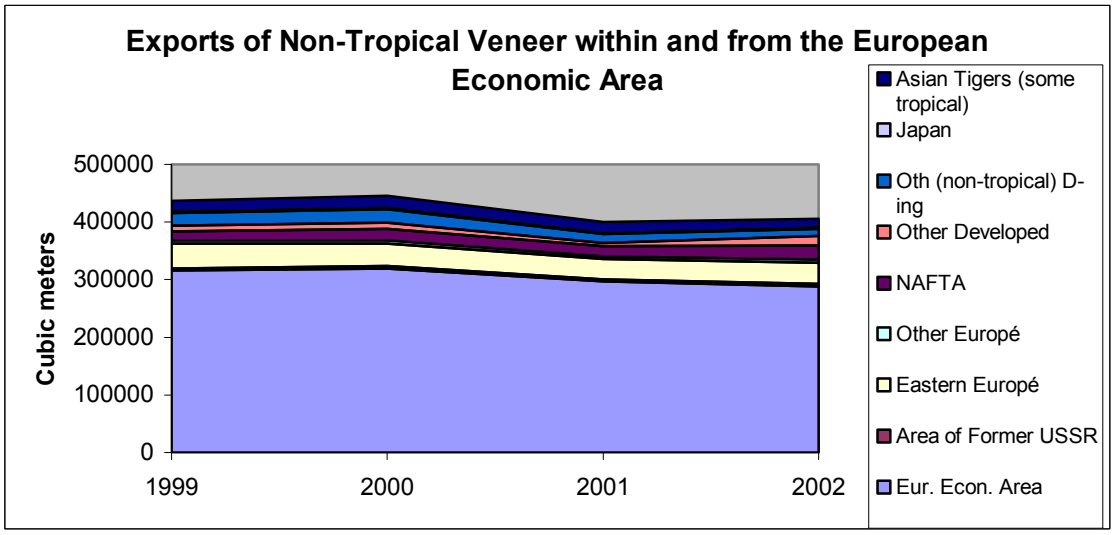


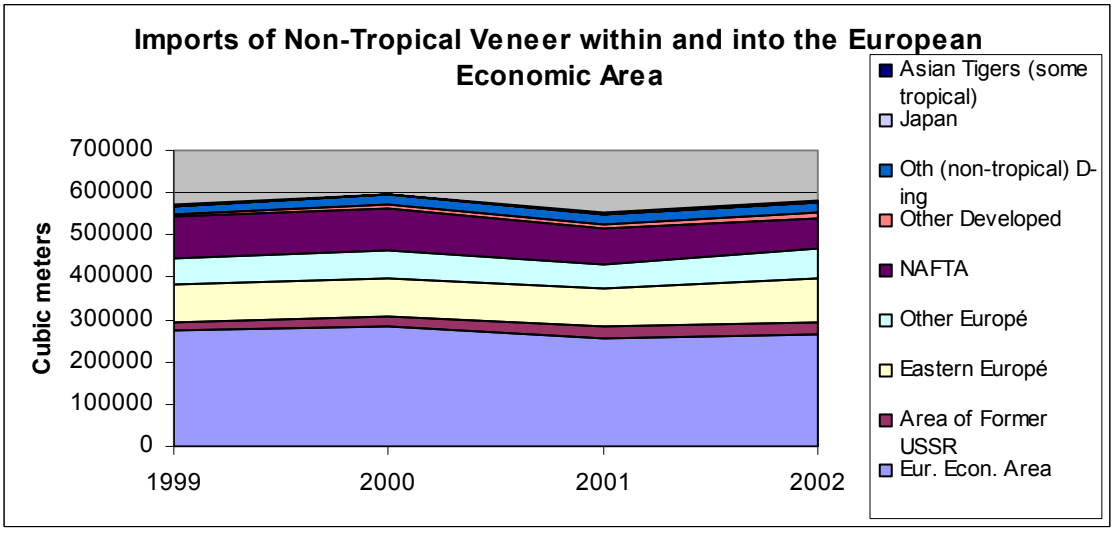


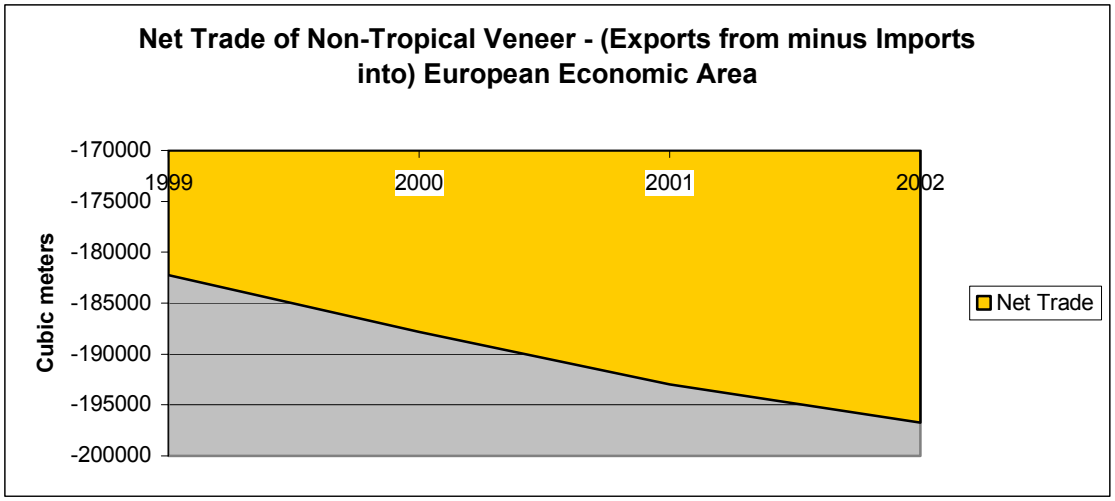


Appendix 13.5

Non-tropical veneer

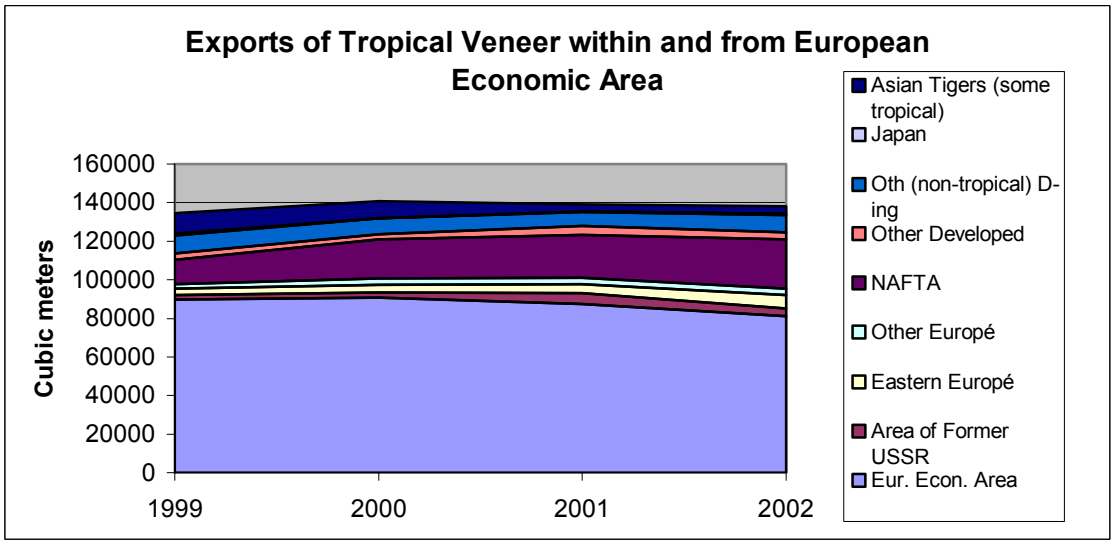


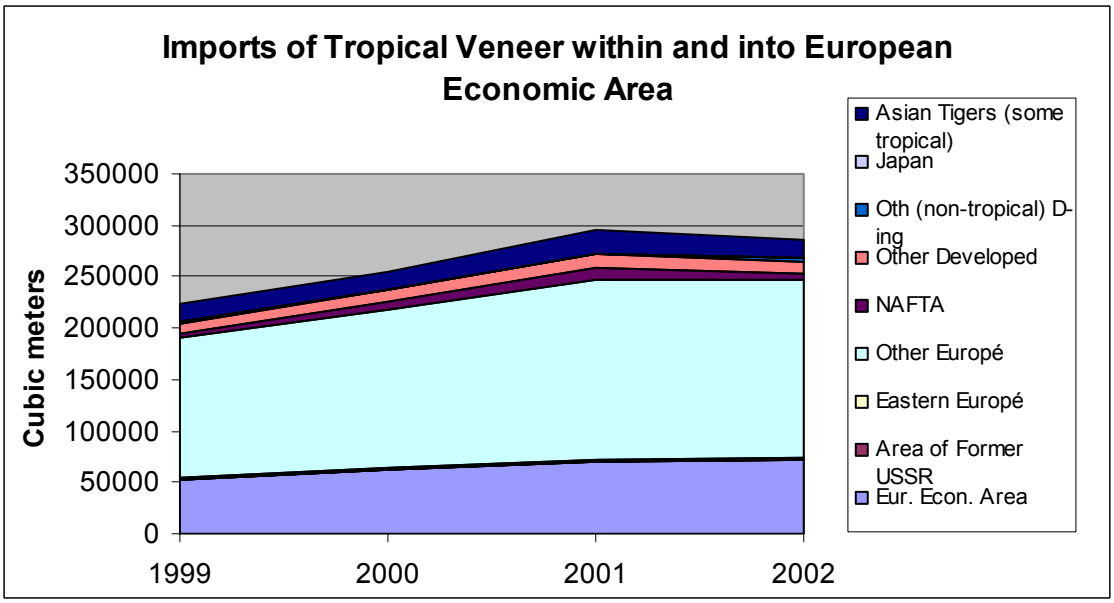


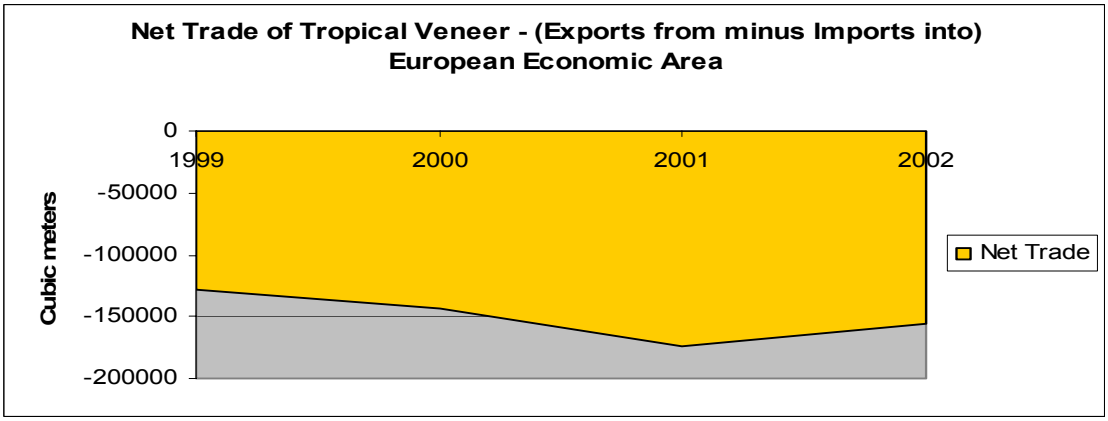


Appendix 13.6

Tropical veneer

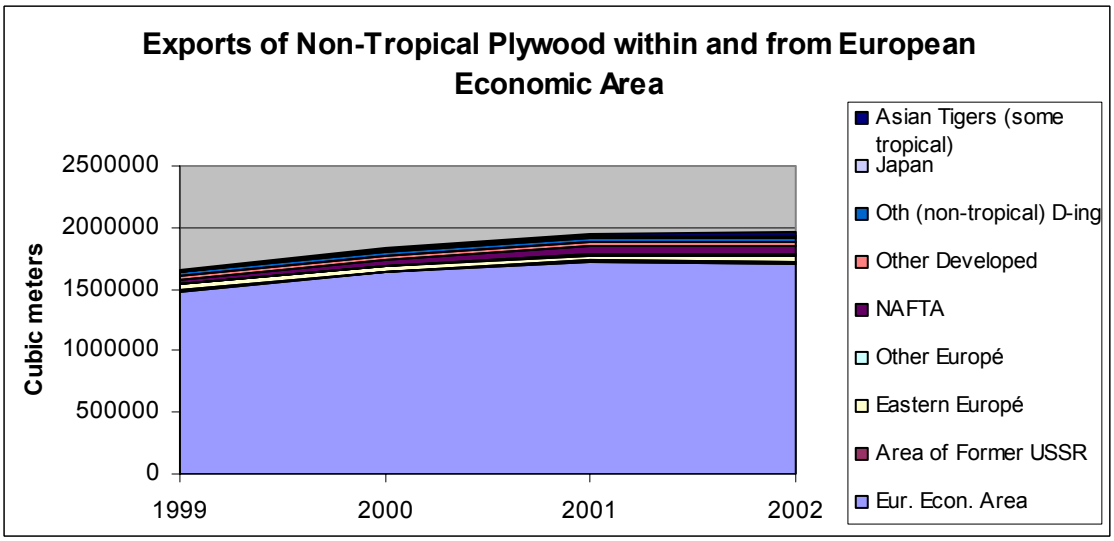


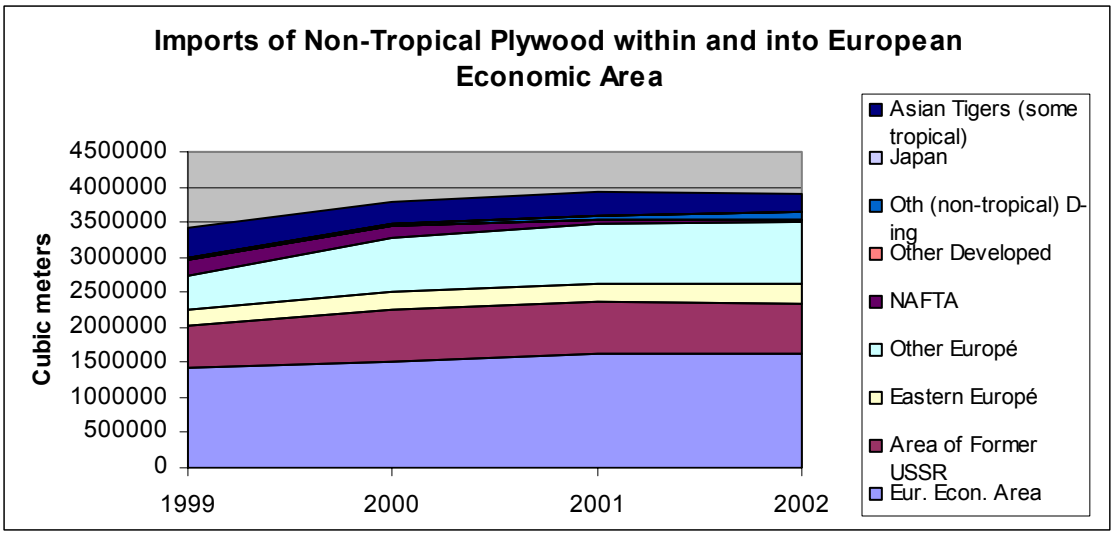


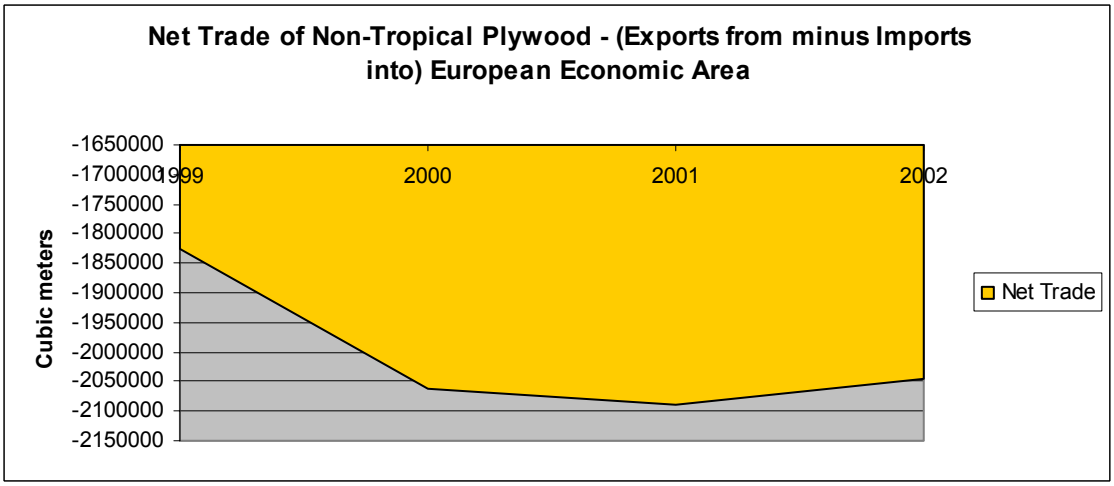


Appendix 13.7

Non-tropical plywood

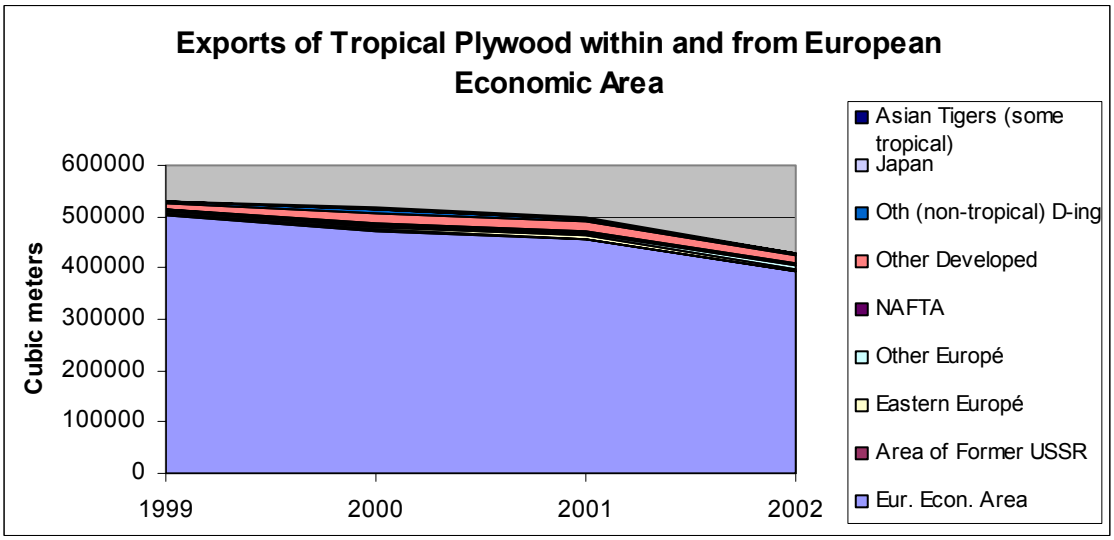


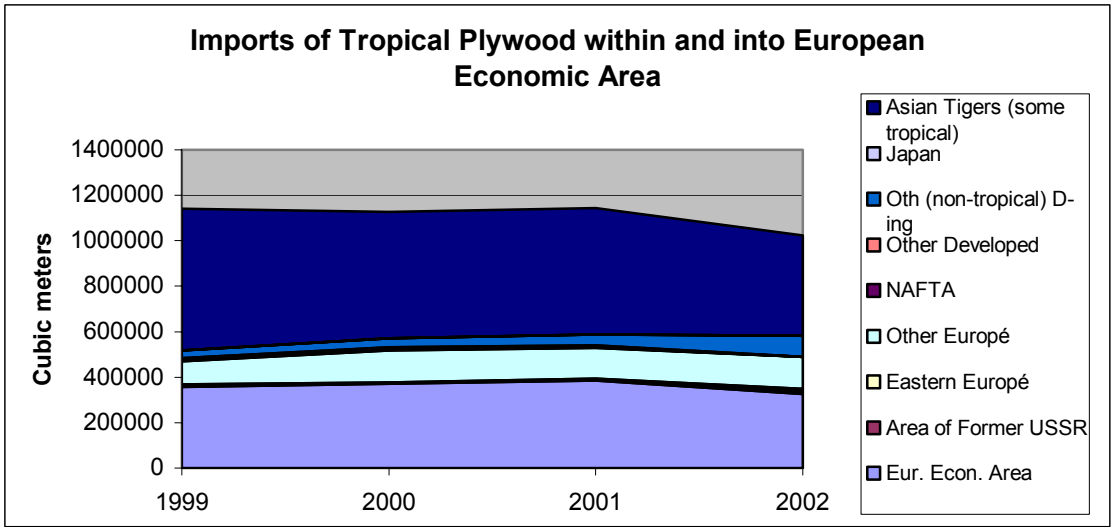


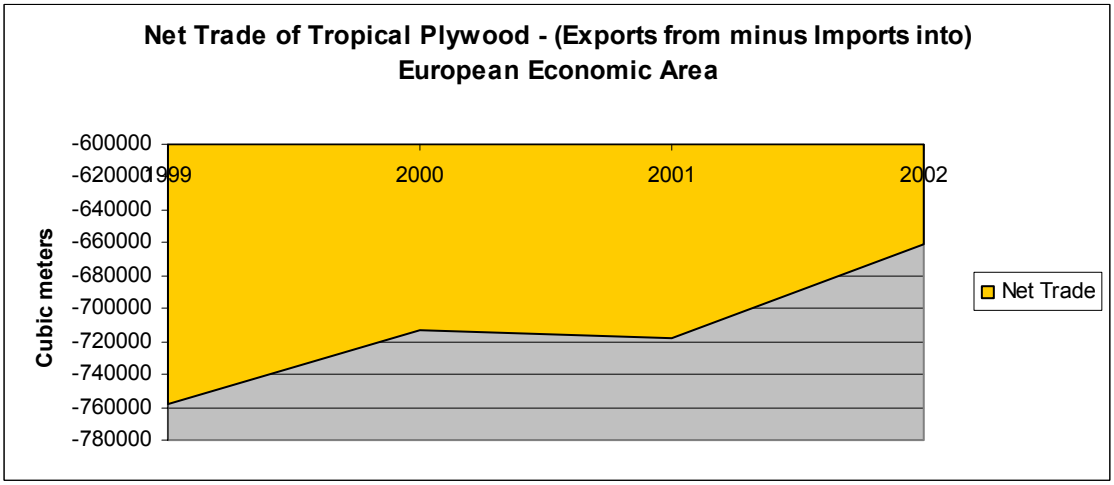


Appendix 13.8

Tropical plywood

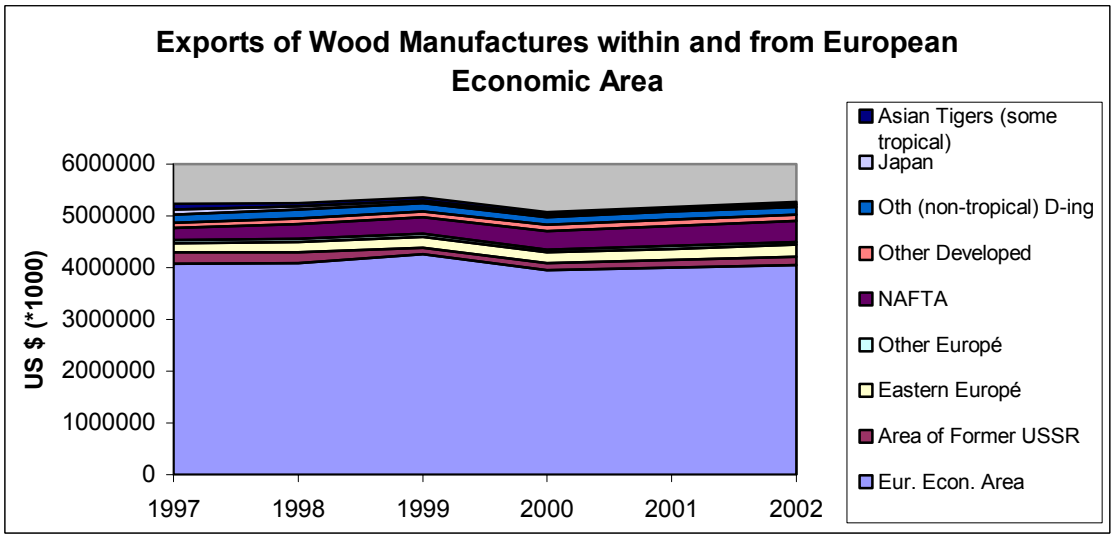


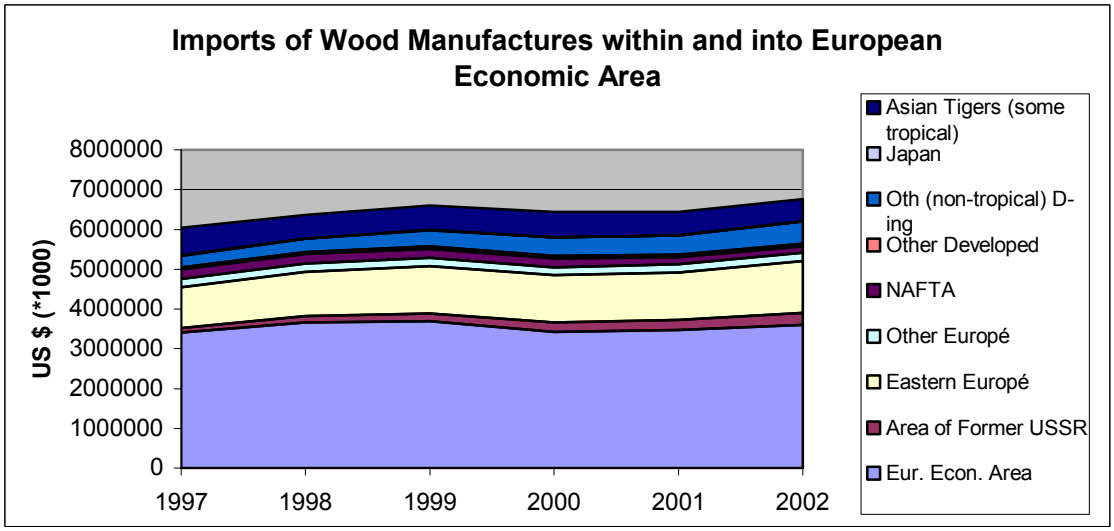


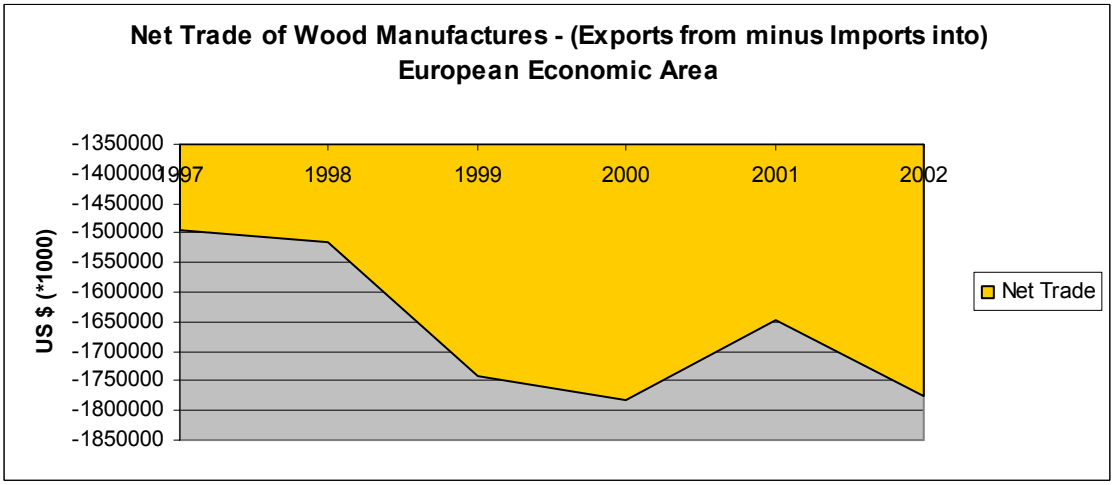


Appendix 13.9

Wooden manufacture (total)

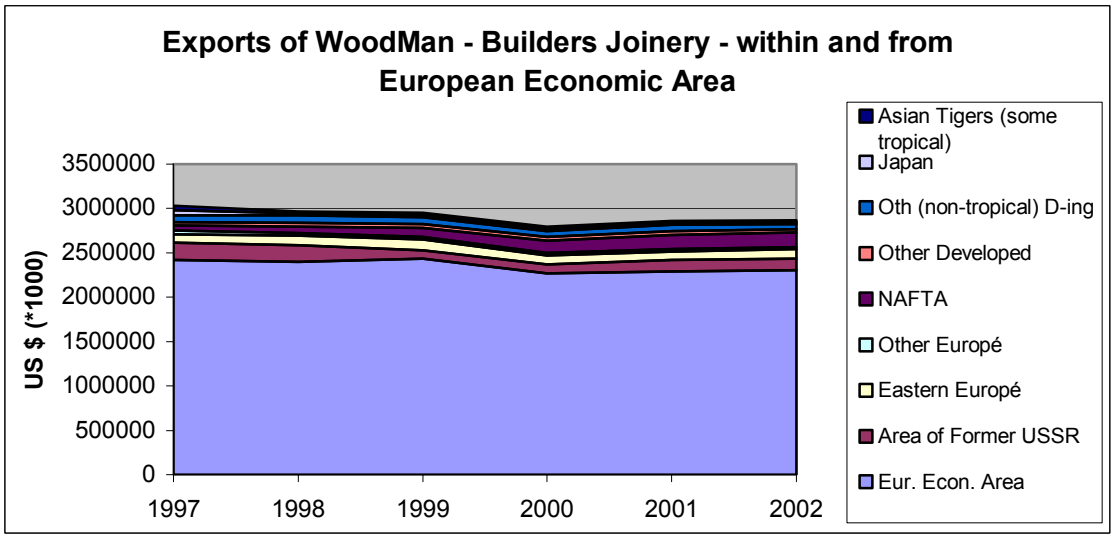


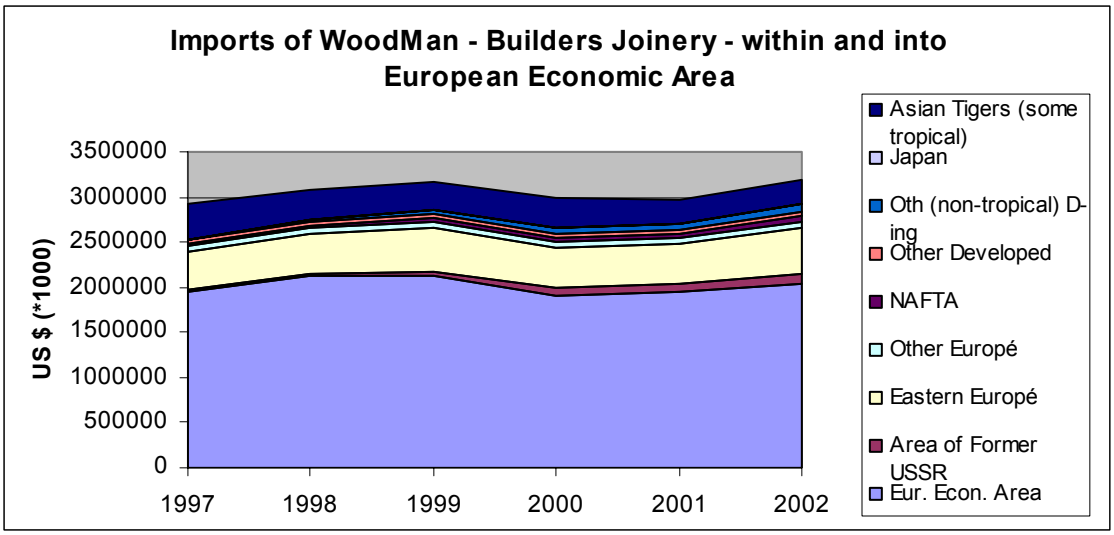


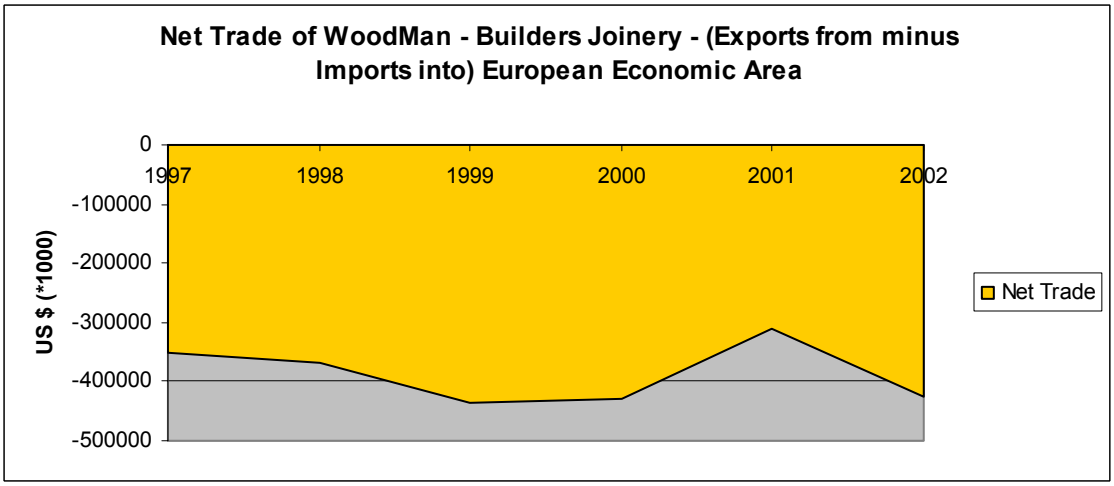


Appendix 13.10

Wood manufacture – Builders' joinery

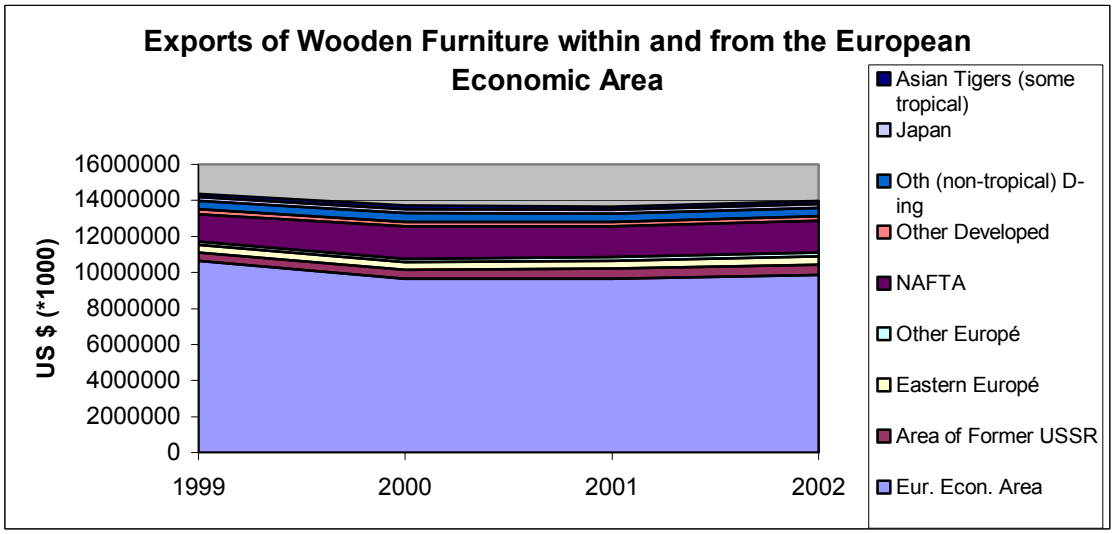


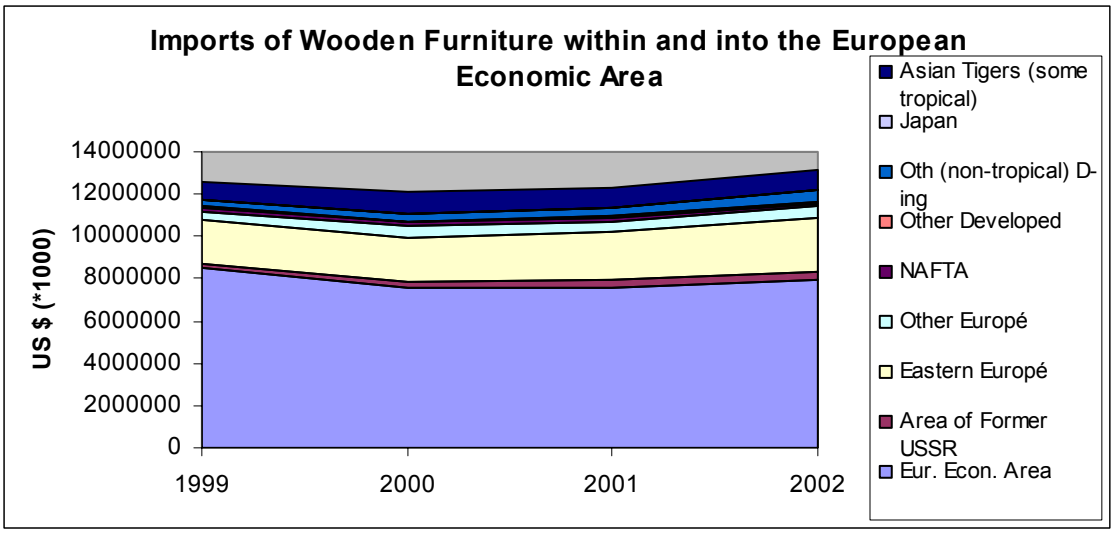


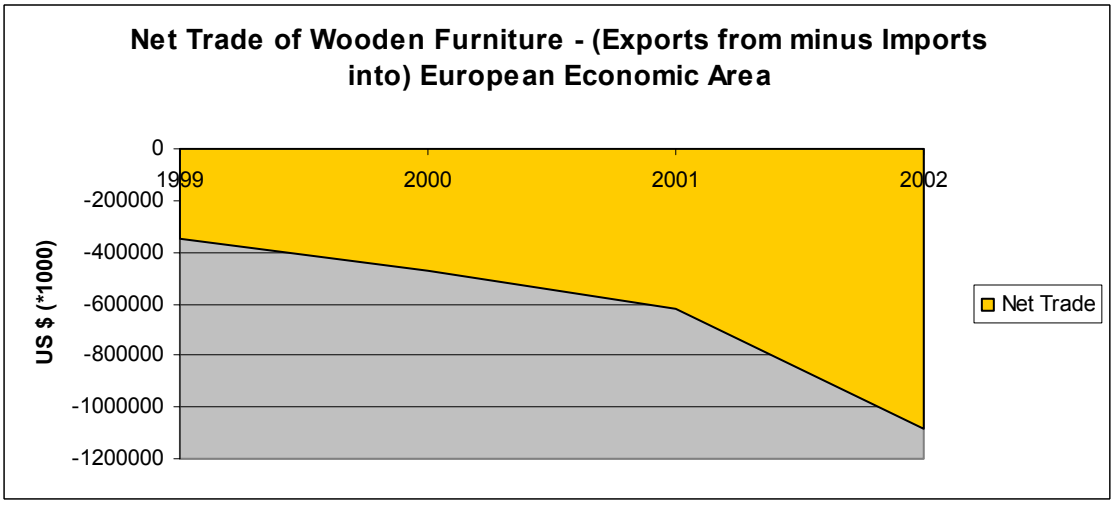


Appendix 13.11

Wooden furniture (total)

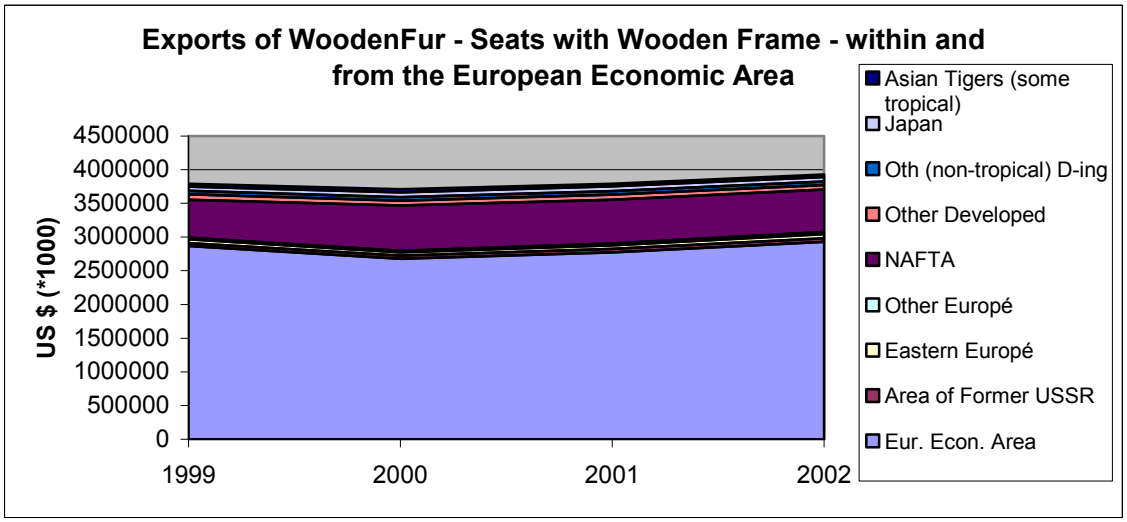


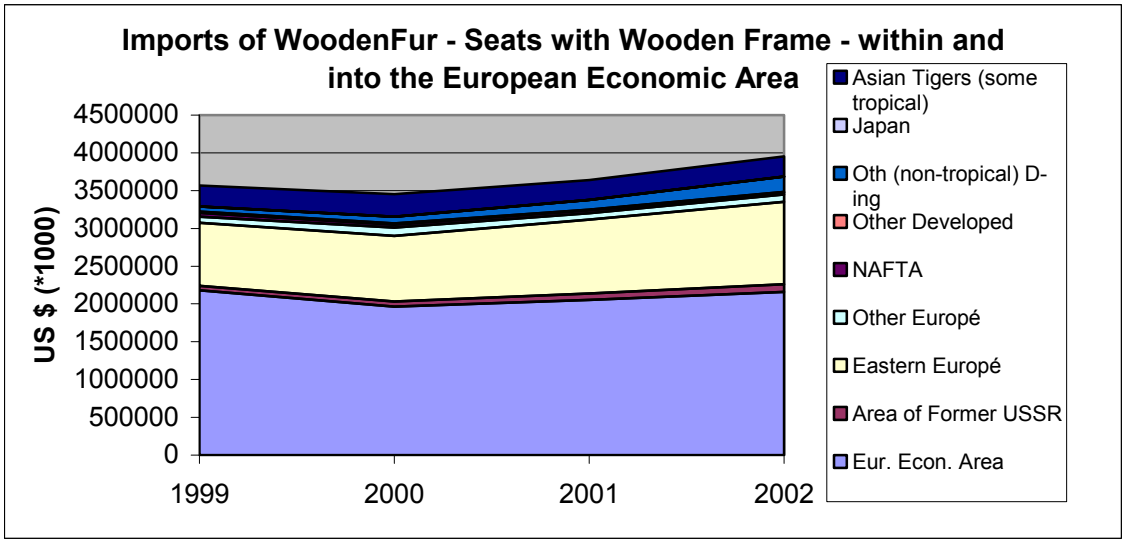


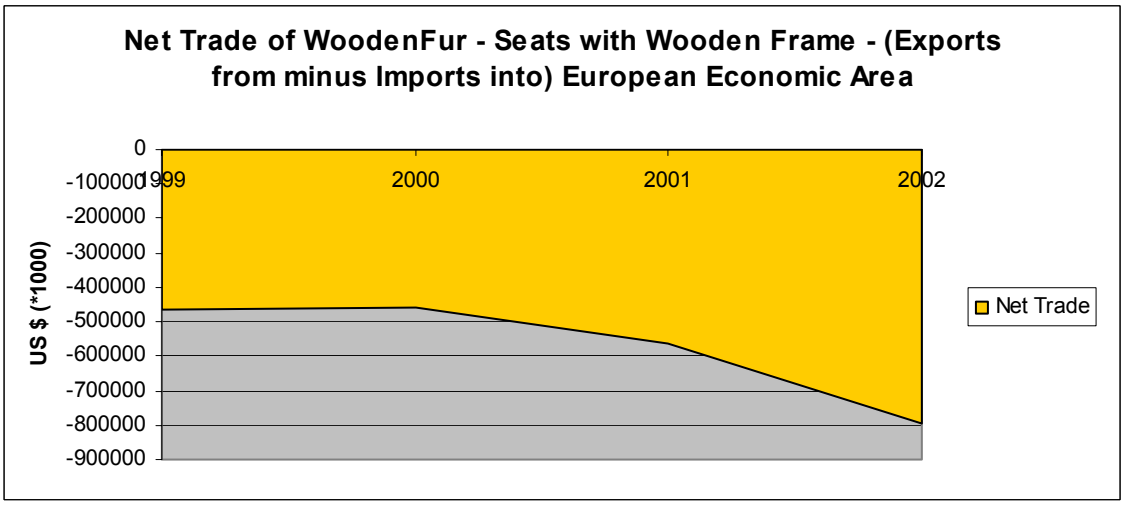


Appendix 13.12

Wooden furniture – Seats with wooden frame

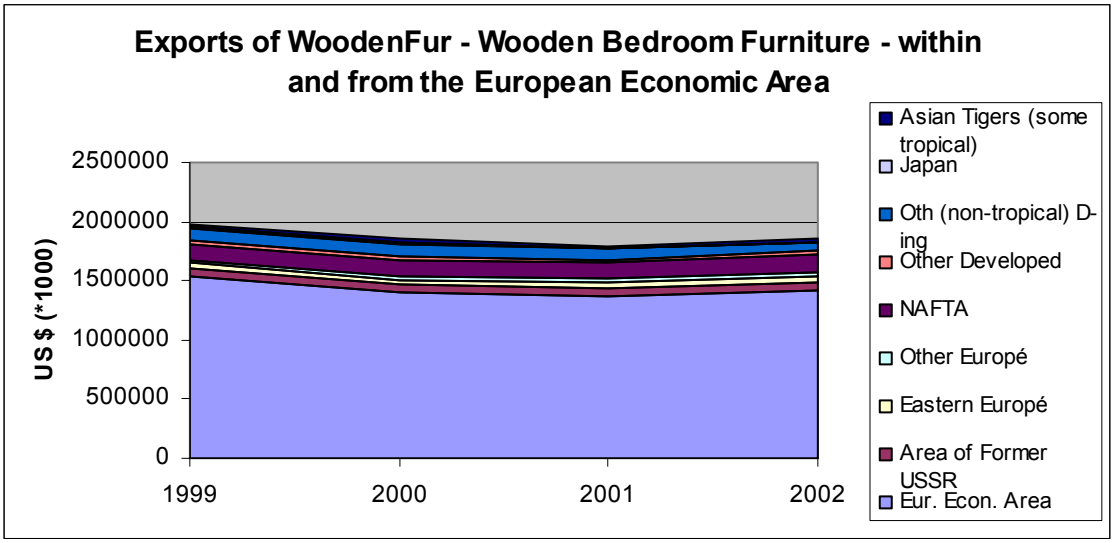


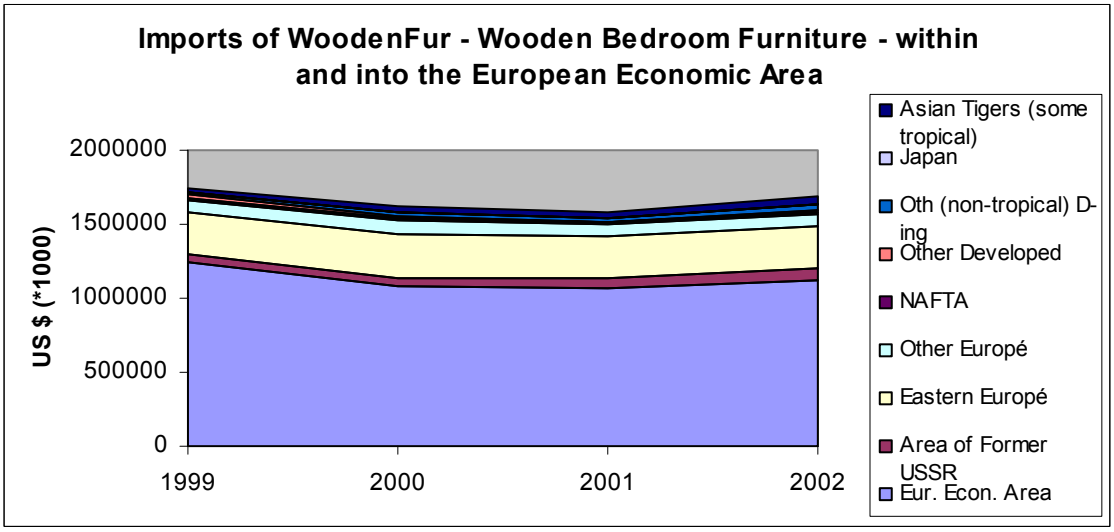

Imports of WoodenFur - Seats with Wooden Frame - within and into the European Economic Area
US $ (*1000)
4500000
4000000
3500000
3000000
2500000
2000000
1500000
1000000
500000
0
1999
2000
2001
2002
Asian Tigers (some tropical)
Japan
Oth (non-tropical) D-ing
Other Developed
NAFTA
Other Europé
Eastern Europé
Area of Former USSR
Eur. Econ. Area

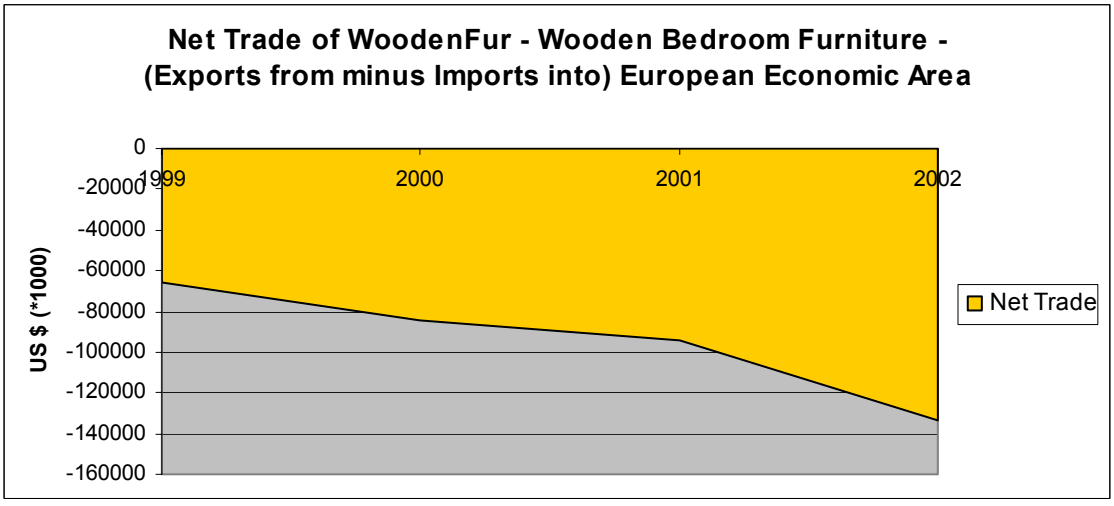

Net Trade of WoodenFur - Seats with Wooden Frame - (Exports from minus Imports into) European Economic Area
US $ (*1000)
0
-100000
-200000
-300000
-400000
-500000
-600000
-700000
-800000
-900000
1999
2000
2001
2002
Net Trade

Appendix 13.13

Wooden furniture – Wooden bedroom furniture

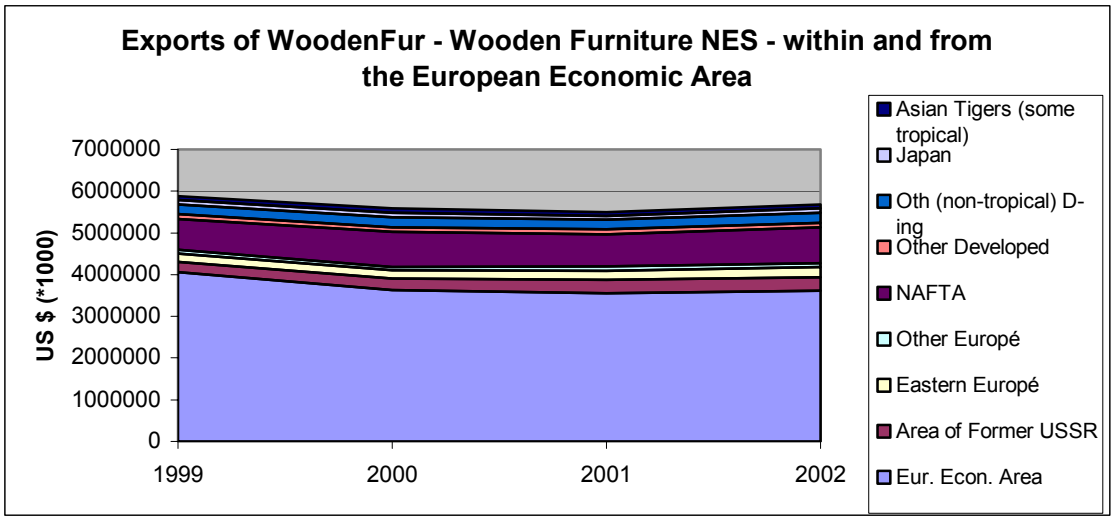


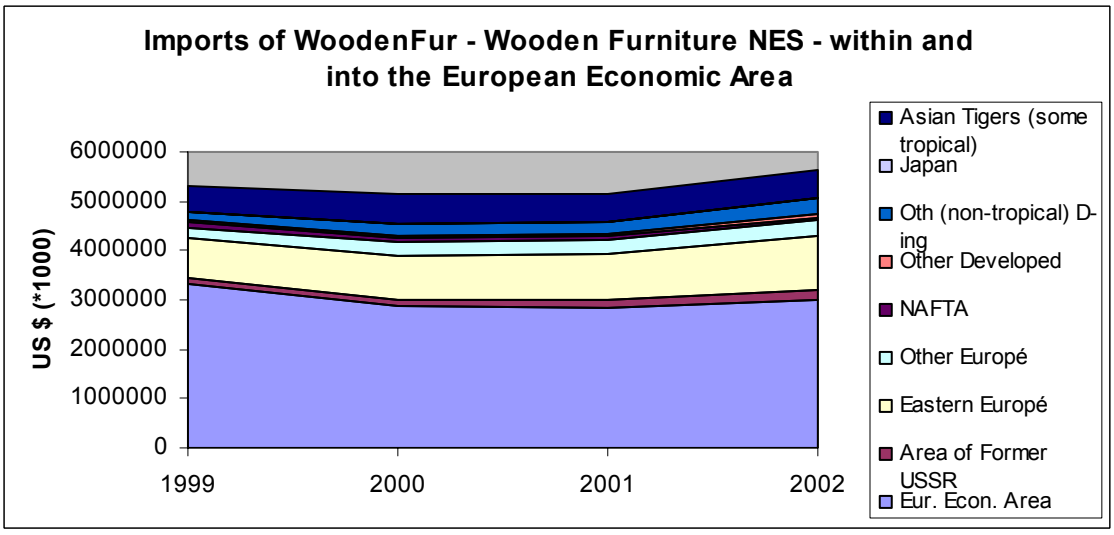


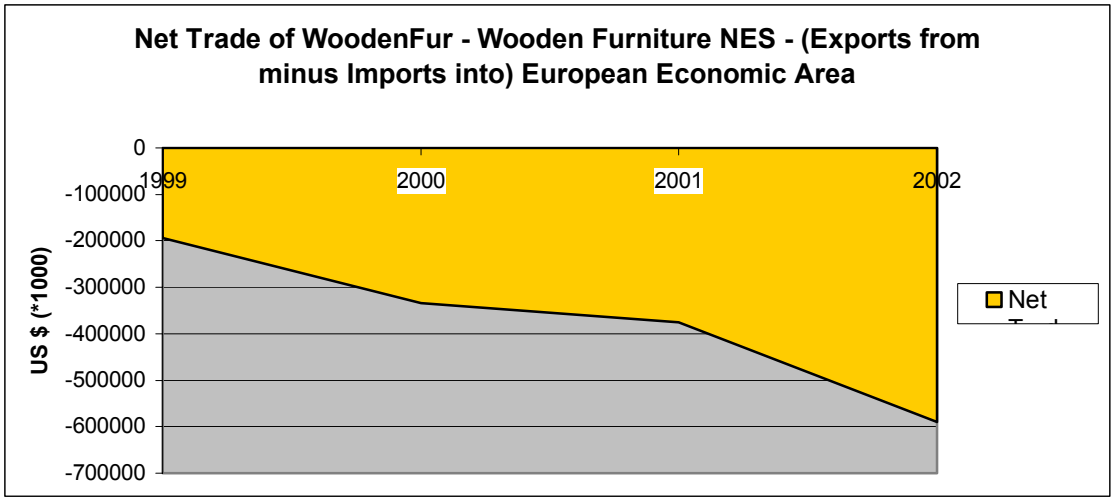


Appendix 13.14

Wooden furniture – Wooden furniture NES

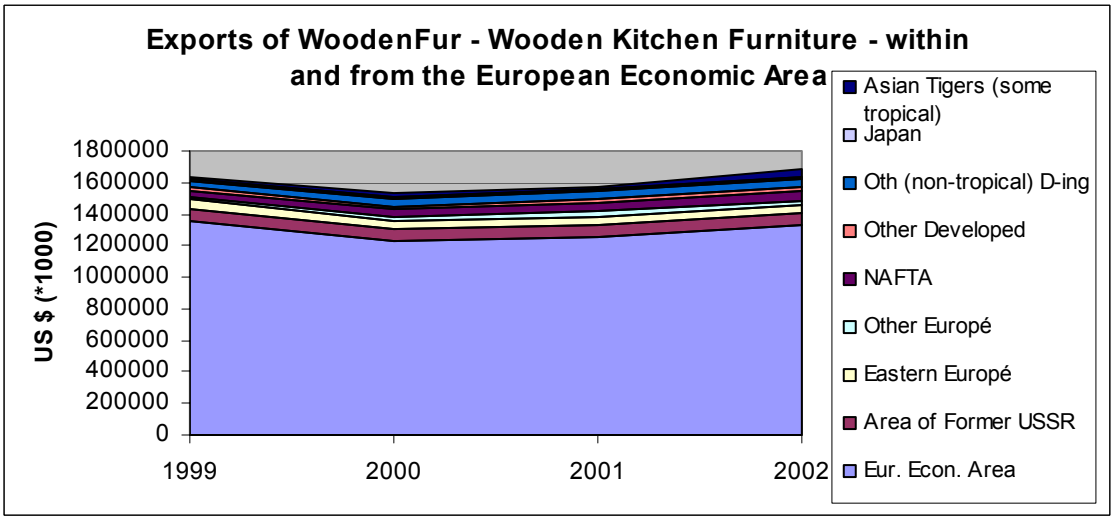


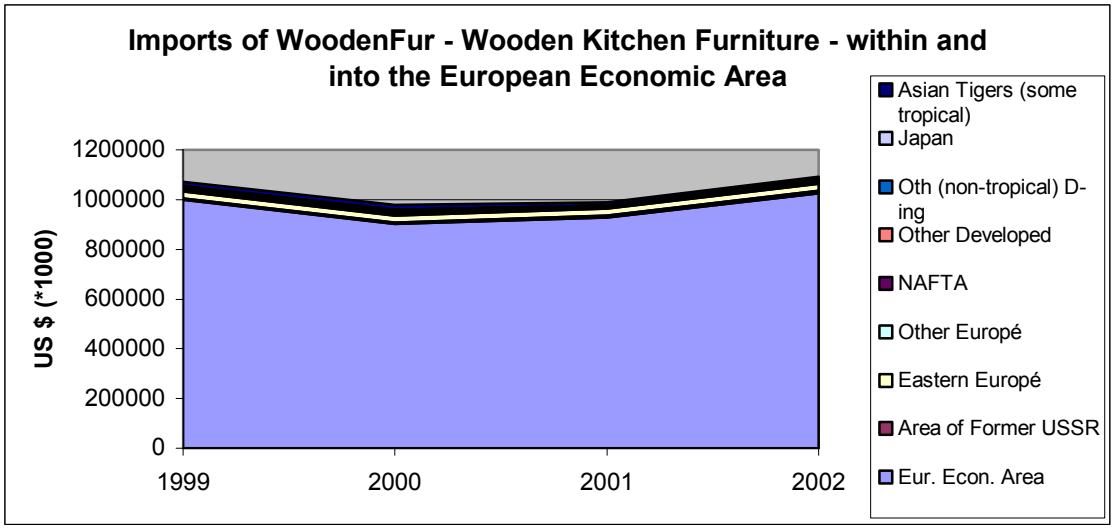


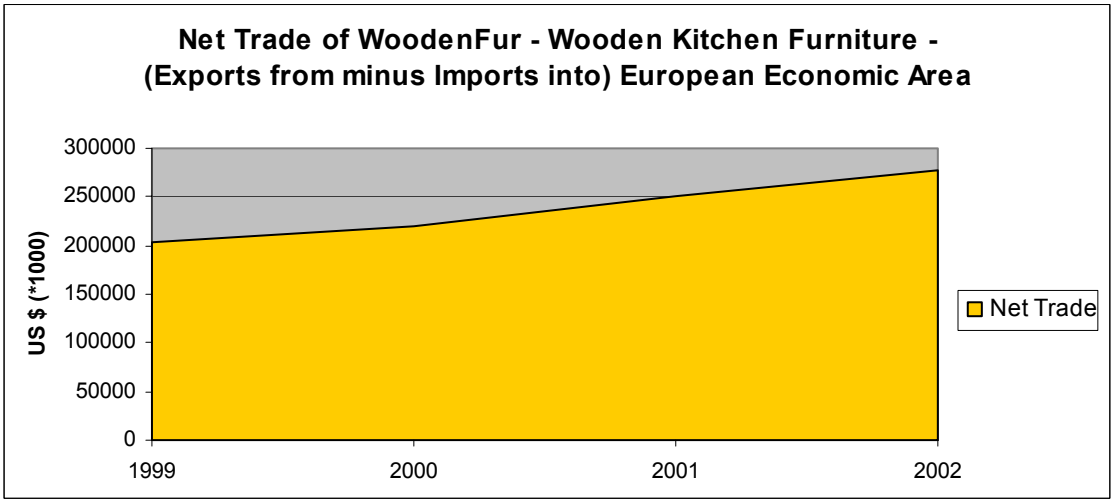


Appendix 13.15

Wooden furniture – Wooden kitchen furniture

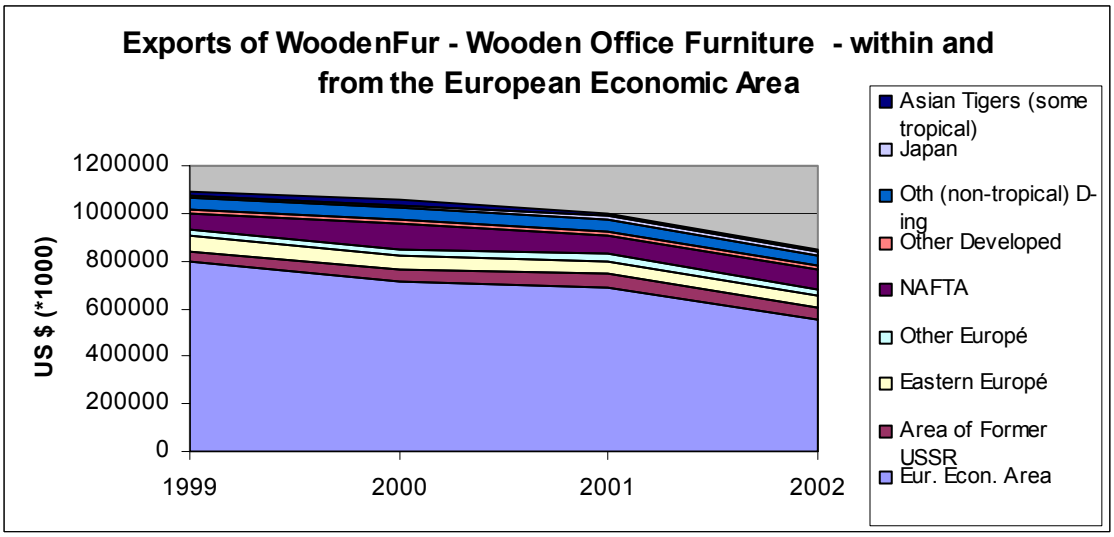


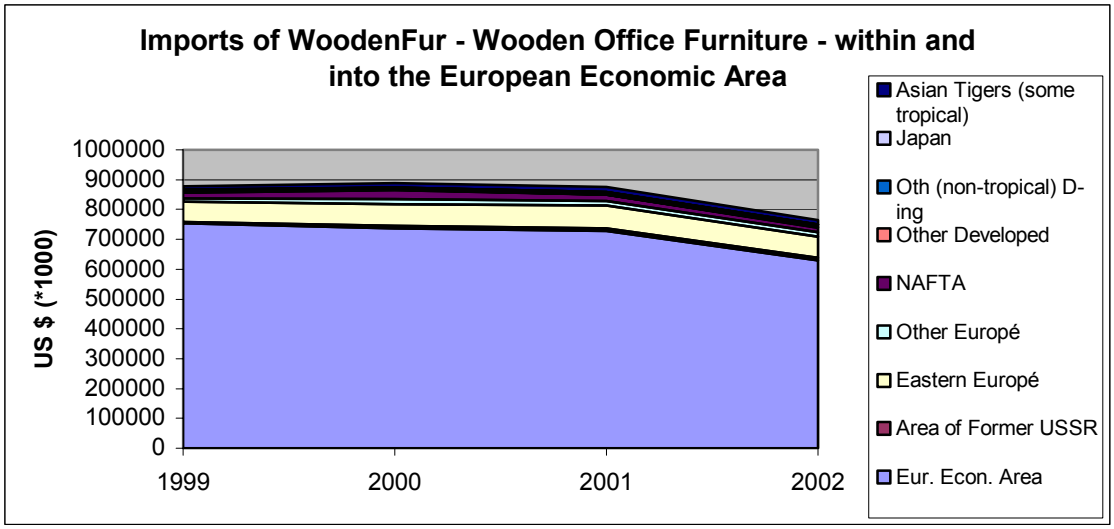


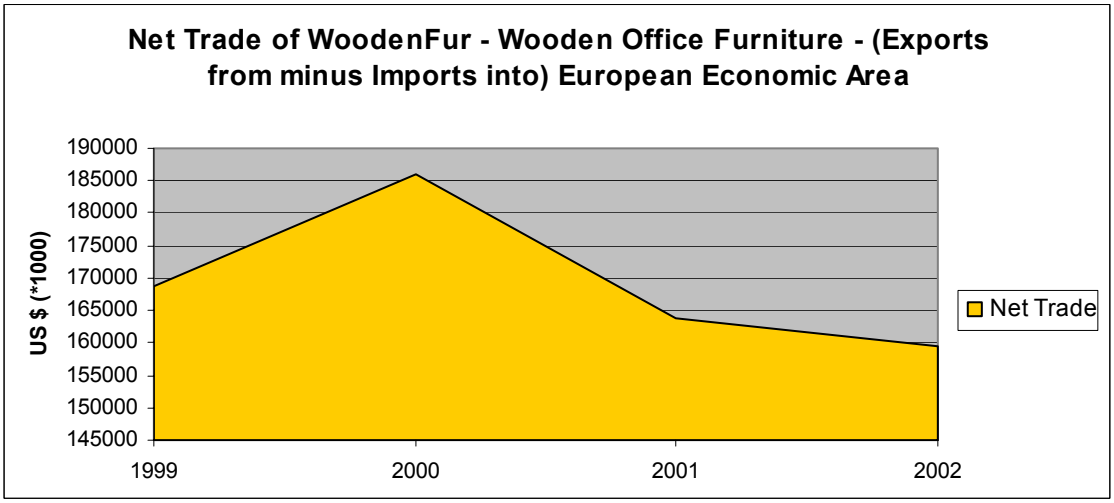


Appendix 13.16

Wooden furniture – Wooden office furniture




Imports of WoodenFur - Wooden Office Furniture - within and into the European Economic Area
US $ (*1000)
1000000
900000
800000
700000
600000
500000
400000
300000
200000
100000
0
1999
2000
2001
2002
Asian Tigers (some tropical)
Japan
Oth (non-tropical) D-ing
Other Developed
NAFTA
Other Europé
Eastern Europé
Area of Former USSR
Eur. Econ. Area


Net Trade of WoodenFur - Wooden Office Furniture - (Exports from minus Imports into) European Economic Area
US $ (*1000)
190000
185000
180000
175000
170000
165000
160000
155000
150000
145000
1999
2000
2001
2002
Net Trade

Appendix 14. To obtain production data – a proposed method

Having recognized the problem of getting reliable ISTAT data on Italian production of wood products following method is proposed. The problem essentially is that industrial units with less than 20 employed are not registered. The average number of employees in the Italian wood sector is however five with a large number of one person-companies. How to this problem be circumvented? A method is proposed that gives production data for a sector of the Italian wood industry based on sample survey data. The method is based on the fact that there are good data on the number of companies and number of employees by company in the records of Federlegno-Arredo. As an example take the door and window sector. From the records it can be seen that the number of companies with one person is 10,192 and 3,141 companies with two employed etc.

The basic idea is that we should aim at estimating output, turnover and input **per employed**. Let us estimate the production of one person companies. Take a sample and based on the data obtained calculate the average output per employed, the average turnover per employed and the average input of raw material per employed. Then it is simple to multiply with the number of companies and you will get the total output, turnover and input for one-person companies. Instead of repeating for each number one can make classes 1, 2, 3-5, 6-9, 10-19, 20-50, etc and take a sample from each of the groups (see Table 1).

Let us clarify by illustrating with data from the doors' and windows' industries.

Table 1. Production structures of the doors' and windows' industries in 2001.
Source: Federlegno-Arredo.

Number of employed	Number of Companies	Distribution (%)
1	7190	48.1
2	2859	19.1
3-5	2921	19.5
6-9	1121	7.5
10-15	553	3.7
16-19	126	.8
20-49	144	1.0
50-99	22	.1
100-199	11	.1
Total	**14947**	**100.0**

A sample from one-person companies would consequently represent almost half (48.1 per cent) of the population. Now, the total output, turnover and input in the Italian woodworking industry is obtained by summing over categories.

Furthermore, a sampling procedure over years could be designed such that the sample is revolving. This means, for instance, that each year 25% respondents are new, while the other ones are retained. This means that no one will have to answer the questionnaire more than four times. It is also essential to keep the questionnaire short - hopefully within one page to obtain a good response rate.

The procedure should not be a burden for the companies or for Federlegno-Arredo. If properly done, the results can be expected to be reliable. The sample size could be kept reasonable with respect to the classification. If later on the output etc per person is found to be quite uniform the classes could be made wider.