WWF GLOBAL FOREST & TRADE NETWORK

REDe IBÉRICA

Portuguese Woodworking and Cork Industries

Market Analysis Report

WWF Mediterranean Programme Office
Global Forest & Trade Network
Rede Ibérica

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Executive Summary

The Iberian Peninsula is the second largest region in the world in imports of Tropical Sawn Timber, with more than 550,000 m^3, accordingly with the 2007 edition of “ITTO – Annual review and assessment of the world timber situation” - China is first in ranking with more than 2 million m^3 of Tropical Sawn Timber.

Portugal and Spain, due to its cultural past and traditions became two of the countries known wide world, for their timber products – mainly furniture – made with tropical timber.
At the same time, Portugal is also the world’s leader producer of cork and cork products and one of the main producers of pulp and paper in Europe.

When taking a closer look at the analyses in a country with only 10 million people such as Portugal, it is easy to see the importance of the Forestry Industry for the national economy:

- 5.3% of the National GVA
- 12% of the industrial GDP
- 12% of the employment in the Industry
- 10% of the exports.

Accordingly with ITTO, in 2007 Portugal were 9th worldwide importer of Tropical Round Timber and 13th worldwide importer of Tropical Sawn Timber.
The Portuguese Tropical Round Hardwood imports are from the West African Coast – Congo Basin. Democratic Republic of Congo, Gabon, Cameroon and Republic of Congo are the country’s main suppliers. Portugal is the main customer of Democratic Republic of Congo and ranks as 3rd in the round timber exports from Gabon. There are Portuguese companies managing tropical timber plantations in Ivory Coast, Cameroon and Democratic Republic of Congo.
Portugal ranks as the 6th Brazilian Tropical Sawn Timber world customer, and 4th in Europe.

The Wood and Cork industries are responsible for processing important – and Portugal's rare - renewable natural resources, like maritime pine and cork.

The Sector is divided into seven large areas with distinctive final products:

- sawmilling
- wood-based panels
- carpentry and joinery
- furniture
- timber trade
- pulp and paper
- cork products.

The Wood and Cork manufacturing companies are located mainly in the north and centre of Portugal, mainly along the Atlantic coast line between Porto and Lisbon.

The Cork industry, along with the Pulp and Paper and the Wood-based Panel Industries are dominated by large groups.
The Woodworking Industry forms a cluster of small and medium-sized companies with a strong interdependence between them. Through the whole value chain, materials, components or even by-products are made available to be used within the wood-based industries, either by secondary processing

industries (such as carpentry and furniture), or by the sawmill industry (utilization of sawmills' by-products and recycling of residue and waste from the other industries).

In Portugal there are timber importing companies and timber agents.
The purchase of tropical round hardwood is focused in the countries of the West African Coast. The imports of sawn hardwood are made from Brazil (tropical species), France and USA (temperate species).

The equipment varies according to the size of the companies and production.
The industry is satisfactorily equipped (their equipment suits the operational needs), with many companies having equipment at their disposal which makes use of Numeric Control and CAD/CAM production control information systems.

The main products of the Portuguese woodworking industry are:

- pallets and packaging, made from softwood, mainly maritime pine,
- wood based panels (particleboard and medium density fibre boards, mainly made from softwood, maritime pine),
- doors, made from soft- and hardwoods,
- parquet and flooring, mainly from hardwoods, including eucalyptus.
- furniture components and replica, contemporary, box type, kitchen and office furniture, employing softwood, hardwood and wood-based panels.

The sawmill industry has a long experience in co-operation, since in the second half of the 1960s the companies joined efforts to export their products (pallets, packaging and fencing) to north Europe, creating their own export trading companies.

The wood based panel industry has quite high productivity and exports the majority of the production (MDF, particleboard and plywood).

The carpentry and furniture industries are co-operating in export efforts, working together to participate in exhibitions in North Africa, Middle East, North America, and Europe.

The Cork and the Pulp and Paper industries are making large investments upgrading production lines, developing and promoting new products. Their main products are:

- cork stoppers
- flooring and wall coverings made with cork
- composite cork
- insulation cork
- pulp, and
- paper.

However they are facing different market realities.
The Pulp and Paper Industry market prices are dropping, but the orders are increasing.
The Cork Stoppers manufacturers are facing losses due to a drop in a wine consumption worldwide and have a severe competition from other materials such as plastic and metal.

The Sector aims to increase exports, find and consolidate international markets, with the support of the Portuguese Government and Associations.

Environment and Certification

Forests have a critical role to play in the fight against global warming. They are the largest storehouse of carbon on earth and, after coal and oil, are the third biggest source of carbon emissions.

Deforestation, particularly in the tropics, contributes about 20% of global carbon emissions, and has negative impacts on biodiversity and sustainable long-term economic growth.

Portugal is in the Top 10 of Tropical Timber importers in the world. The country plays an important role in the world Tropical Timber Trade, as a consumer.

Consumer countries, such as Portugal, have a role to play in stopping deforestation, by avoiding forest products from illegal logging.
The development of a responsible market for forest products helps to eliminate products from unwanted sources, such as illegal logging, while encourages forest managers to adopt best management practices. Certified products assure to the consumer, the product was responsibly produced.

The importance of the Forestry Industry is proclaimed by every level of the Portuguese Government.
Portugal signed all the main international protocols related with Environment and Forests Preservation and approved a National Forestry Strategic Plan. Portugal subscribed to the FLEGT and CITES but is not an active country.

The Portuguese Authorities do a phytosanitary control and verify the origin certificates of the timber and related products; however the Customs Officers are not experts in wood species or products. They believe in the contents of the declarations. In recent years, mistakes occurred when traders and importers fill the customs declarations forms mixing plywood, veneer and flooring nomenclature codes.

Despite the fact of Portugal being one of the European major Timber importers, the Government and the Public Administration does not show any concern about the development and implementation of measures and practices on responsible public procurement and consumption of forest products aiming the use of certified timber in public works.

There is no legislation regarding controlling the source of the wood, aiming to eliminate unwanted sources, such as illegal logging, neither regarding stimulus for the use of certified wood products.

Conclusions

- The Iberian Peninsula is first European region and second region in the world in imports of Tropical Sawn Timber.

- Portugal is one of the most relevant Tropical Timber importers in the world, being the main customer of Democratic Republic of Congo and the 6^{th} Brazilian Tropical Sawn Timber customer.

- There is no effective legislation regarding the imports of wood products for eliminates unwanted sources, such as illegal logging, and stimulus to certified wood.

- There is not national or local polity of Public Procurement aiming the use of certified wood and wood products in public works.

- Portugal is the world's leader producer of cork and cork products.

- The Portuguese exports on Forestry products are mainly to Spain, France and Germany – markets where the recovery from the actual economic and financial crises is expected to take longer.

- The Portuguese Forest and Cork Industries will need to search for other new markets, where credible Certification can be an "access door".

- The distribution companies do have a role to play in Certification divulgation – they are closer to producers and consumers.

Recommendations

- The European Parliament and EU Member countries Governments, should agree on timber legislation and regulation, currently being discussed by the European Parliament and Council of Ministers to be voted in the coming months, which gives all players in the timber supply chain more clear indications about what they need to do to prove the legality of their timber.

- The Portuguese Government and the Public Administration should recognize the importance of the Sustainable Forestry Management, and introduce a public procurement policy that promotes the use of certified forestry products in public works.

- The Portuguese Government should motivate the market and cooperation initiatives with the West African Countries ("Congo Basin") and Brazilian markets to increase Certification and the Control of Origin of Timber and Wood products exported.

- The Portuguese Forestry and Cork Industry should invest in the most relevant and new markets, where credible Certification can be an "access door" and added value.

Part One

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1.1 Introduction

Data Sources

For the Market Analysis have been taken into account the existing studies and statistics made by national and international organizations such as AIMMP, CELPA, APCOR, AFN, INE, ITTO, UNECE, COMTRADE, EUROSTAT, and FAO.

At this time, there is not any available data on certified timber trade in Portugal.

The sources are identified in the Annexes and the latest data was reported.

Market Analysis Structure

The Market Analysis is divided in three parts, preceded by an Executive Summary with Conclusions and Recommendations.

In order to place the country in the world timber trade, the trade between Portugal and its suppliers of tropical timber, including Spain, is reported.

A brief description of the Portuguese economy, industry and trade structure is presented in Part One.

Specific analysis is in Part Two, considering the importance for future wood and cork consumption. In order to place Portugal in the regional context, the European data is reported for the main species and products.

In Part Two, species, volumes (production, trade and consumption), countries of origin, end users, market drivers and competition are identified and briefly described.

The study of reports, analysis, statistics, telephone interviews and e-mails exchanged, was combined with visits to companies, industrial associations, organizations and others with helpful information for the Market Analysis.

1.2 Global Forest & Trade Network

Global Forest & Trade Network (GFTN) is WWF's initiative to eliminate illegal logging and transform the global marketplace into a force for saving the world's valuable and threatened forests. By facilitating trade links between companies committed to achieving and supporting responsible forestry, the GFTN creates market conditions that help conserve the world's forests while providing economic and social benefits for the businesses and people that depend on them.

Global Forest & Trade Network – Rede Ibérica (GFTN-Iberia) is a regional arm of GFTN aimed to stop illegal logging and deficient forestry by improving the sound management of valuable and threatened forests through Portuguese and Spanish markets.

GFTN-Iberia mission is to transform the Portuguese and Spanish market place into a force for saving the world's valuable and threatened forests, while providing economic and social benefits for businesses and people that depend on them.

Through this mission, GFTN-Iberia aims to mainstream responsible forest management and trade as the standard practice in the global forest products industry.

By co-ordinating WWF efforts and strategies in Portugal and Spain, GFTN-Iberia will better address forest conservation in the following three key areas which are shared by both countries: Credible certification (pine & eucalyptus plantations and cork oak forests); illegal logging (mainly tropical forest product coming from Amazon and Congo basins and to less extend but increasing Asian furniture and flooring); Public and private procurement, as key actors on responsible consumption.

GFTN Figures

- Represent 16% of all forest products traded internationally every year, with combined annual sales of $62 billion.
- Manage over 20.5 million ha of certified forests and 18.6 million ha in progress to certification.
- Trade 16% of the volume of internationally trade timber and fibre.
- Employ over 2.4 million people globally.

1.3 The Portuguese economy

The international economic crisis that was felt in 2008 should have a strong impact in Portugal during 2009.

The Bank of Portugal and the Government indicators, presented earlier this year, provide a negative growth of Gross Domestic Product (-1.8%) and a significant increase in unemployment in more than 0.5% for 2008.

Following the growth period throughout the 80s of last century which finished with the Expo 98 in Lisbon, the Portuguese economy has been fluctuating between growth and reduction.

The outlooks for the period 2009-2010 are marked by a strong influence of an unprecedented crisis in international financial markets and a sharp slowdown in economic activity globally. All forecasts point to a period of recession in most of the economies of developed countries and low growth in emerging market economies.

Current projections for the Portuguese economy points to a reduction in economic activity in 2009, followed by a moderate recovery in 2010, in a context where the persistence of a number of such structural weaknesses continue to constrain the performance of the economy (Table 1.3.1).

Table 1.3.1:
Portugal: Economic Indicators from 2005 to 2010

%	2005	2006	2007	Estimate 2008	Forecast 2009	Forecast 2010
GDP	0.9	1.3	1.9	0.3	-0.8	0.3
Inflation (RPI)	2.1	3.0	2.4	2.7	1.0	
Private Consumption	2.0	1.1	1.5	1.4	0.4	0.6
Government Consumption	3.2	-1.2	-0.1	0.2	-0.1	-0.2
Gross Fixed Capital Formation	-0.9	-1.0	3.2	-0.8	-1.7	-0.3
Exports	2.0	9.2	7.7	0.6	-3.6	1.8
Imports	3.5	4.6	6.1	2.4	-1.0	1.5
Unemployment	7.7	7.8	8.1	7.9	8.5	8.2

Source: INE; Ministério das Finanças e da Administração Pública; OCDE

1.4 The Forestry Industries in Portugal

The Forestry Industry is present everywhere in Portugal. The transformation industries are located in the north region of Tagus River, and along the coast line from Braga to Lisbon:

- Sawmills, in the interior regions of north and centre, close to the maritime pine forests;
- Wood-based panels, near Viseu and Porto;
- Builder's Joinery producers, around the main consumer areas of Lisbon, Porto, Braga, and Aveiro;
- Furniture manufacturers, near Porto, Leiria and Braga;
- Cork products, in the north of the Aveiro district; and,
- Pulp & Paper, Viana do Castelo, Aveiro, Figueira da Foz, Castelo Branco, and Setúbal, close to the ports or to the eucalyptus plantations.

Table 1.4.1
The Portuguese Woodworking Industry in 2007: Facts and Figures

	Companies	Employees	Production value	Imports in value	Exports in value	Consumption
			million euro			
Sawmilling	250	4,500	295	265	192	368
Wood based panels	12	2,000	346	62.3	210	198.3
Joinery and carpentry	2,000	14,000	280	64.9	93.7	251.2
Furniture	2,500	37,000	645	178	187	636
Pulp & Paper	193	3,222	2,204	1,145.1	1,565.3	1,783.8
Cork	800	12,000	1,311	131.8	853.8	589

Source: AIMMP, Celpa, AIEC, INE, Eurostat

Woodworking Industries – different realities

The performance of the Woodworking Industries is highly dependent on the performance of the Construction Industry, because the vast majority of the products manufactured – doors, flooring, wall coverings, windows, skirting stripes, or furniture – find their way into construction sector, both for structural and non-structural applications, as well as for decorative purposes.

The year 2008 was not positive for Portuguese Woodworking Industries, due to their main customers being located in markets such as Spain, France and Germany; countries with the highest reduction in the Construction activity.

Despite the negative situation in Real Estate and the Construction Sector, the Portuguese Woodworking Industries are now facing different reality; depending on raw material used.

The first transformation industries - sawmilling and wood-based panels - raw material is essentially maritime pine – roundwood and residues – from the Portuguese forest.
Throughout the last quarter of 2008, the exports of "pine wood" industry started to feel the toll effect of the nematode plague, which is now going towards the countryside and may cause economic

instability in the country's central region. The restriction to untreated wood exports imposed by the European Union is generating a negative signal between the small wood producers.

The sawmill owners are investing in kiln drying, but others are closing their doors, unable to get Government financial support or having enough capital to make technological investments in a critical and difficult time as the one the world currently facing.

To important markets such as Spain, Morocco and England, the exporters of packaging and fencing are facing product costs increase and potential market loss, due to the need of add more value to an already competitive product, with low profit margin.

The Wood-based panels industries – particleboard, MDF and plywood – main products users are the construction and furniture industries which are also facing market losses – its main external market is Spain once again.

Hardwoods, temperate and tropical, imported from Central Europe, North America, Africa and Brazil, are the main raw material all the other Woodworking Industries.

After a decade of investments in technology, (partially supported by European funds) the Builder's Joinery and Furniture industries are more specialized and have increased their productions.

Two examples: Portugal is one of the European leading manufacturers of interior doors ("Vicaima"), exporting to Spain, Germany and England; "IKEA" and is building two more plants (by the end of 2010, there will be a total of three plants near the city of Oporto), that will a boost for the Portuguese furniture exports.

The timber trade is a complementary activity to the Builders' Joinery and Furniture industries, providing hardwood species that those industries use as raw material.
It is carried out by importing companies and timber agents.

A number of big importers also have industrial plants mainly producing doors and flooring. Some also have their own retail distribution.

The West African countries located in the Congo Basin, are the main suppliers of Tropical Round Hardwoods, and from Brazil come the most importance amount of Tropical Sawn Hardwoods.

Temperate hardwoods, such as oak and beech, come to Portugal from USA and France.
There are as well export agents for the softwood products – pallets, boxes and fencing – with a huge experience in market trading. They are not producers; they just know how to the "office" (street smart), buying goods to small saw millers and selling them in the North African markets (were the Portuguese softwoods are used and well appreciated for fruit boxes) or to England.

In 2009, it is expected a drop in Woodworking Industry despite the efforts that are being made, by the Sector Associations, the companies and the Government to find and reach new markets, in northern African and eastern European countries, as well as the former Portuguese colonies. In this particular situation, Angola, Cape Verde and Mozambique, are very good examples, seeing as the Portuguese exports of wood products to these markets have increased in the last two years.

Cork Industry – facing the challenge of the new raw materials

The largest cork tree plantations are located in the south region of Tagus River, but the 800 companies that produce the product are located 300km north, near Porto and near some of the most remarkable wine producing regions and cellars in the country, not to mention close to the port of Leixões.
For many years, cork stoppers were the only product manufactured; used for customer in Portugal and exported to the main foreign wine markets: France, Spain, South Africa, Argentina, USA, Australia, Germany, and the United Kingdom.

All over the world, the drop in wine consumption and synthetic wine makers gaining market share, combined with the consumption increase in plastic and aluminum stoppers, (particularly in Australia, New Zealand and Latin America) making very tough for nationwide exporters in cork stoppers.
New products were developed, such wall partitions and flooring, taking advantage of the insulation cork properties.
However, since the second quarter of 2008, sales to international markets are starting to drop and some national companies are dealing with serious difficulties.
Some of the main National cork exporters are in risk of closing their doors.

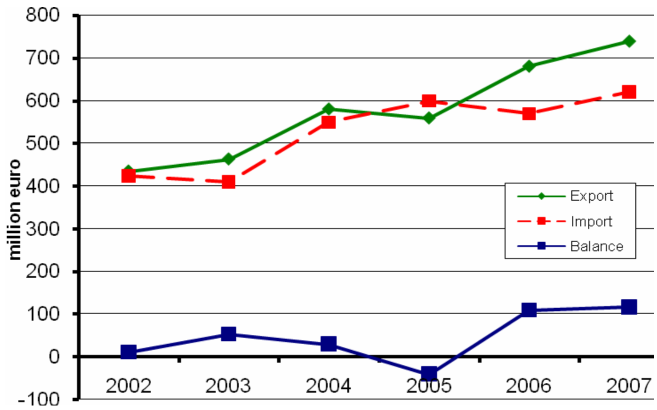
Pulp and Paper Industry – No problems!

In spite of the whole crisis situation there is good news for the Pulp and Paper Industry sector.
The 10 companies operating in Portugal all have a good outlook for the upcoming years.
International market prices are dropping, but orders are increasing.
In this particular sector of economic activity, there is no suggestion of stopping neither production nor layoffs.
More important, there is a 2 million euro investment program for this particular sector, and the paper making industry was not abandoned by any company in this particular sector moreover, it was considered to be one of the most modern and dynamic at the European level.
In order to save domestic prices and harvest production the imports of raw material from South America – wood chips and particles – will continue in 2009.

Portuguese Forestry Industry Trade

The balance of external trade of the Portuguese Woodworking Industries has registered a positive variation in the last two years.
The sawmill industry, producing pallets, boxes and wood for construction from maritime pine, and the Builders' Joinery products, like doors and flooring, together with the wood-based panels are the products that contributed most to this.

Figure 1.4.1: Portuguese Woodworking Industries Trade from 2002 to 2007 (Furniture, Cork and Pulp Industries excluded)



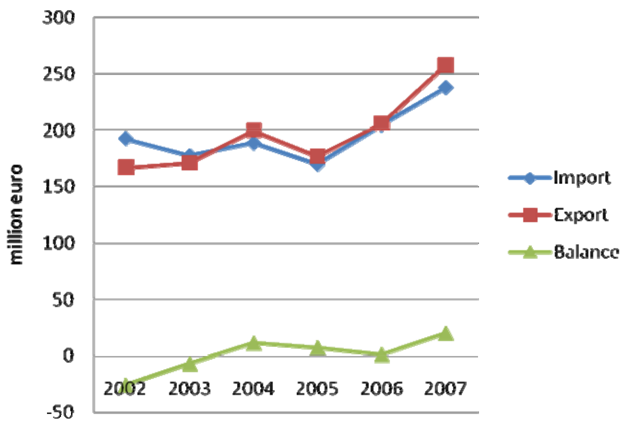
Source: INE

The furniture industry in Portugal has benefited from a series of initiatives promoted by the Portuguese Government in partnership with the industry associations that aim to increase exports through the consolidation of existing markets and the approach and development of new markets.

Following the technological investment occurred in the 90s of last century, manufacturers of furniture began to make regular attendance at trade fairs and trade assignments, to promote their products.

Spain, France and Germany have over the past 10 years been the industry of traditional Portuguese furniture. However, some companies already marked presence of success role markets in countries such as different as the USA, Angola, Russia, Italy, United Arab Emirates, Hungary and the United Kingdom.

Figure 1.4.2: Furniture Trade Balance from 2002 to 2007

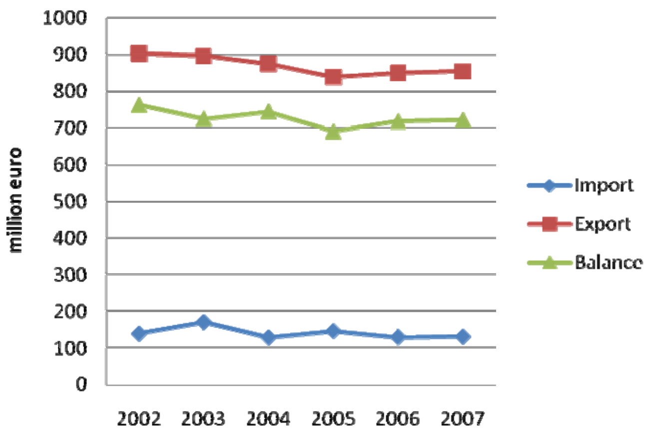


Source: INE, Comext

Portugal is the largest producer of cork in the world and this is clearly visible in the trade balance of the economic activity, which contributes significantly to the Portuguese exports.
The challenge in developing new products and applications in cork, it is assumed as one of the main

challenges for this sector, since the market for cork stoppers, as well as highly competitive, facing a situation of stagnation and even some reduction of consumption.
Spain, France, Italy, Germany, USA, Argentina, Australia, South Africa and Chile, are some of the countries where the largest customers of the Portuguese cork industry are.

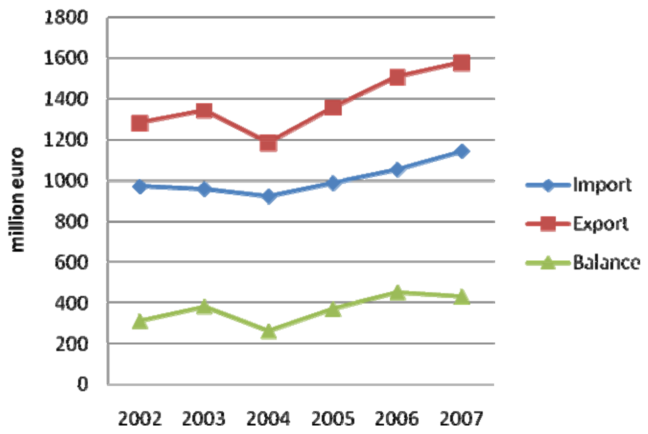
Figure 1.4.3: Cork and Articles of Cork Trade Balance from 2002 to 2007



Source: INE, Comext

Like the other sectors of forest products, Pulp and Paper Industry also presents a positive trade balance. Germany and Spain are the main destinations of the Pulp. The main foreign markets for the Paper produced in Portugal are Spain, Germany, France and Italy.

Table 1.4.4: Pulp & Paper Trade Balance from 2002 to 2007



Source: INE, Comext

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1.5 The Forestry Products trade between Portugal and Spain

In 2007, Portugal exported about 37 billion euro of products.
The wood, cork, pulp and paper products contribute positively for the Portuguese trade balance representing 9% of exports and 3.7% of total imports of the country.

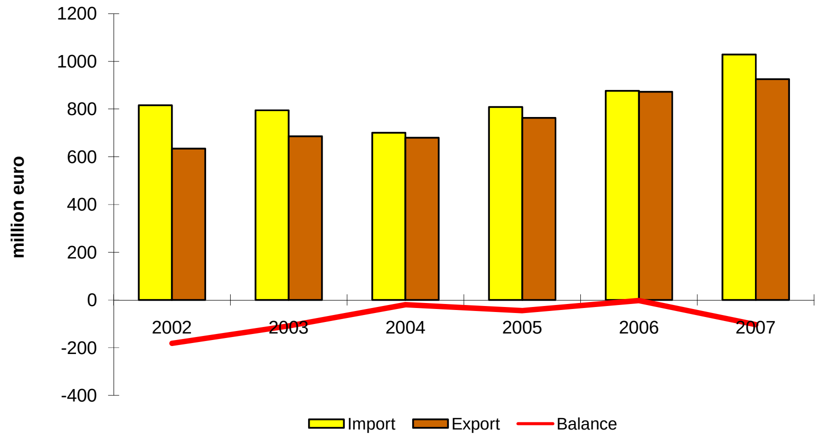
According to statistical data released by Eurostat, in 2007, Spain is the main trading partner of Portugal, representing 26.7% of total exports and 34.9% of Portuguese Intra-EU27 trade.
From his neighbor, Portugal got 29.5% of the total value in imported product, which is equivalent to 39.1% of Intra-EU27 purchases.

Among the products most exchange by the two Iberian countries in 2007, are the wood and wood products, including cork, pulp and paper, which represented as a whole together 950 million euros.

Between 2002 and 2007 Portuguese exports to Spain of wood and derived products register a constant increase. This is not the case with the purchases of Portugal to Spain, which decreased from 2002 to 2004, increasing the following three years.
This fact is not unrelated that many companies have and Iberian perspective of their business, managing the production and marketing of goods in a way that does not take into account political boundaries, but the European economic space in which the two countries fall.

The products with highest growth variation in Portuguese exports to Spain were the doors.
A special remark goes to the Portuguese exports in Eucalyptus roundwood, representing in 2007, 1.2 million m^3, 99.8% of total temperate hardwood exported.

Figure 1.5.1: Portuguese Forestry Products Global Trade with Spain



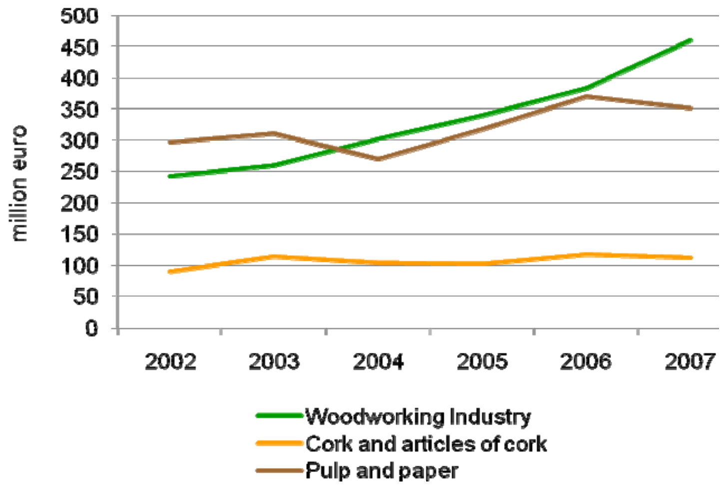
Source: INE, Comext

Portuguese Forestry Products Exports to Spain

Since 2004 the group of woodworking products is the main exported group, reaching in 2007 more than 461 million euro representing a growth of 77% in just three years.

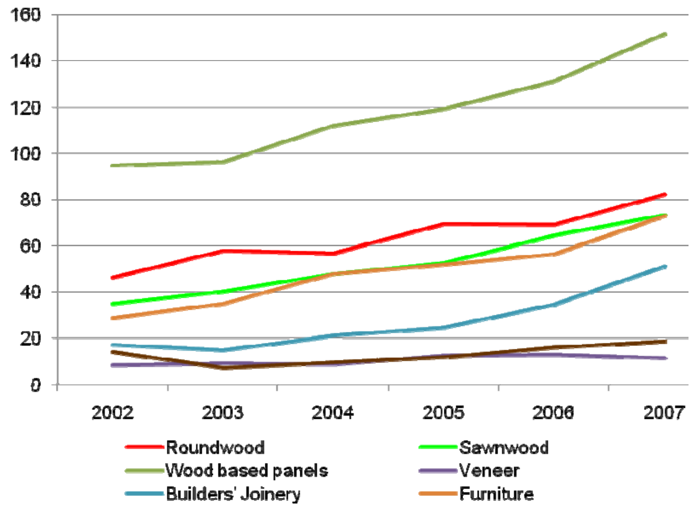
Definitely contributing for that was the significantly growth confirmed by the exports of eucalyptus roundwood, maritime pine sawnwood, particleboard, MDF, doors, bedroom furniture, and upholstered seats.

Figure 1.5.2: Portuguese Forestry Products Exported to Spain



Source: INE, Comext

Figure 1.5.3: Portuguese Woodworking Products Exported to Spain



Source: INE, Comext

Table 1.5.1
Portuguese Exports to Spain:
Products with more increment growth from 2002 to 2007

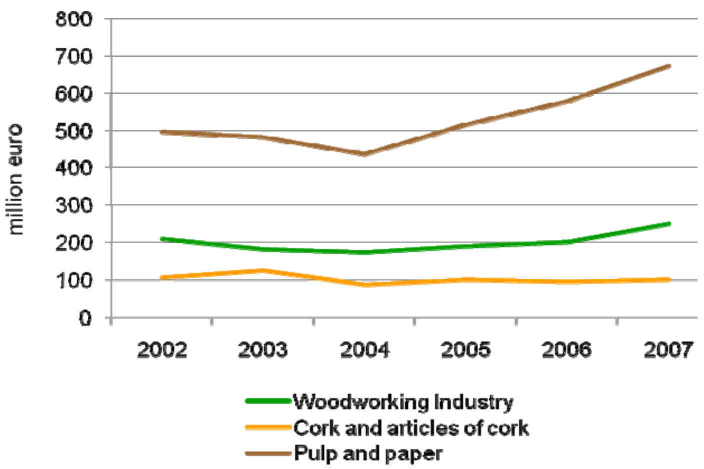
x1000 euro	2002	2003	2004	2005	2006	2007
Eucalyptus Roundwood	38,061	49,971	48,704	60,249	58,814	72,332
Maritime pine Sawnwood	864	1,185	1,217	1,659	2,143	3,176
Particleboard	34,023	35,853	47,489	51,382	56,390	63,964
MDF	57,166	57,445	62,727	65,888	72,964	86,837
Doors	12,531	12,551	10,984	13,803	21,652	37,453
Bedroom Furniture	5,742	7,231	10,148	13,598	15,901	18,069
Upholstered seats	708	1,682	2,240	4,751	5,248	12,322

Source: INE, Comext

Portuguese Forestry Products Imports from Spain

The Portuguese imports from Spain are mainly Pulp and Paper.

Figure 1.5.4: Portuguese Forestry Products Imported from Spain

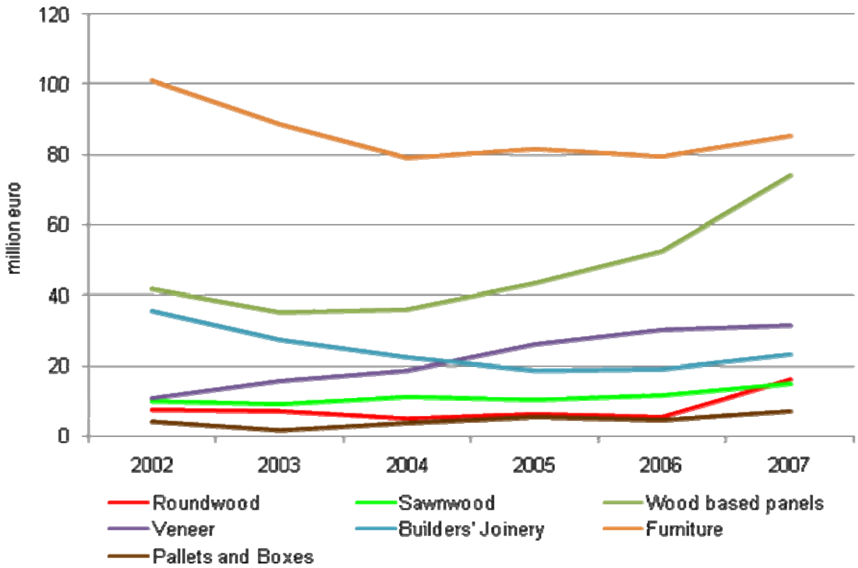


Source: INE, Comext

The closure of plywood and veneer sheets plants in Portugal after 2001, led to increase imports from Spain. In a matter of 6 years, the imports increase from 10.7 to 31.5 million euro. For this increment

contributed the good performance of the Portuguese Builders' Joinery (door) and Furniture manufacturers, which are large consumers of veneer sheets.
At the same time, was recorded an increased in imports of fiberboard and plywood.
In 2003, Portugal imported 17 million euro of doors from Spain, and the trade balance was negative in 4.5 million euro; four years later, the Portuguese manufacturers exported 37.5 million euro of doors, and the balance became positive in 31 million euro.

Figure 1.5.5: Portuguese Woodworking Products Imported from Spain



Source: INE, Comext

Table 1.5.2
Portuguese Imports from Spain:
Products with more increment growth from 2002 to 2007

x1000 euro	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Plywood	8,273	6,884	6,373	5,758	7,982	12,409
MDF	23,124	20,602	21,277	27,738	32,288	45,681
Particleboard	13,376	7,570	8,045	9,981	12,238	16,073
Veneer	10,785	15,837	18,726	26,060	30,168	31,535

Source: INE, Comext

1.6 Logistics

The fact of being located on a Peninsula facilitates trade with third countries of Portugal through the sea and land routes.
The Portuguese ports management is being restructured by the Government, and it is expected to be concluded before 2012.
The country is making substantial investments to develop its infrastructure and logistics capacity with a view to increasing the volume of sea trade.
The country is involved in the EU27 project "Sea Highways" to connect two main ports of Portugal, to specific European destinations: Sines (Portugal) to La Spezia (Italy), and Leixões (Portugal) to Rotterdam (Netherlands), via Liverpool (UK). These "Sea Highways" have been operational since January 2008, with the necessary infrastructure and logistic support.
In the last decade has been an effort to develop the country's road infrastructure particularly through the construction of roads, improving the links with Europe and between Portuguese major cities and regions. New investments were recently announced by the Government.
In the next two years, for instance there will be better road link to the ports of Sines and Viana do Castelo as well as the port of Aveiro will have a railway terminal.
Platforms / logistics interfaces began to emerge near the main urban areas in order to facilitate the transportation and distribution of goods.
Concerning the wood and cork international trade, it is relevant notice that:

- **Tropical hardwoods**

The imported tropical hardwoods reach Portugal mainly by cargo vessels.
The main receiving ports are Leixões and Viana do Castelo, as they are close to the woodworking industry and have the needed infrastructures.
In 2007, the Port of Leixões received more than 196,000 tons of wood (bulk and containerized).
In the same year, the port of Viana do Castelo received 137,000 tonnes in break-bulk wood cargo. The ports of Sines and Aveiro, received 18,000 and 12,000 tonnes, respectively. Figueira da Foz, Lisbon and Setúbal are also used for wood shipments, but they have no regular service for tropical timber and there is no information available related with wood trade.
Aveiro and Figueira da Foz are mostly used for export in bulk vessels of coniferous sawn wood and pallets, Setúbal for import of eucalyptus logs and chips, also in bulk; Lisbon is mainly a general cargo port.

- **Cork**

The imported cork arrives in Portugal mainly by truck and cargo vessels. The amounts of imported cork are significantly low if compared with wood imports. Leixões is the main receiving port, once is located near the transformation industry; in 2007, received 7,500 tonnes of cork.

- **Pulp & Paper**

Accordingly with the statistics published by the Portuguese Port Authorities, Leixões, Viana do Castelo, Setúbal and Lisbon are the main receiving ports used by the Portuguese Pulp and Paper industry.
Over the last decade, the companies imported logs and wood chips from South America that are transported by truck and train to the plants.

1.7 Trade - Timber Importing Agents and Companies

In Portugal there are about 30 timber importing companies and 20 timber agents, located in the north and center regions of Portugal.

The agents play an important role when it comes to tropical wood, whether trading with the African or South American exporters.
The Portuguese main supplier of tropical wood in South America is Brazil, where the language is Portuguese, making it easy to establish communication.

The majority of African suppliers speak French, which is a communication barrier for many companies. More over the trips to Africa are not as attractive as the ones to South America. Because of this, agents perform their selling activities through communication between appraiser and supplier.

Some of the larger Portuguese companies also own production plants, and usually establish contact directly with the suppliers and the trading companies' wide world, using the agents only sporadically.

In the next years, it is expected an increase in the exports of semi-manufactured wood products from Africa and South America. Agents and importing companies will keep their roles in the timber trade, upgrading their functions and skills to the new market demands, being the connection between the producing countries and the industrial companies.

The Cork and the Pulp and Paper Industries do not use timber importing agents or companies due to their characteristics.

Part Two

2.1 Tropical Timber

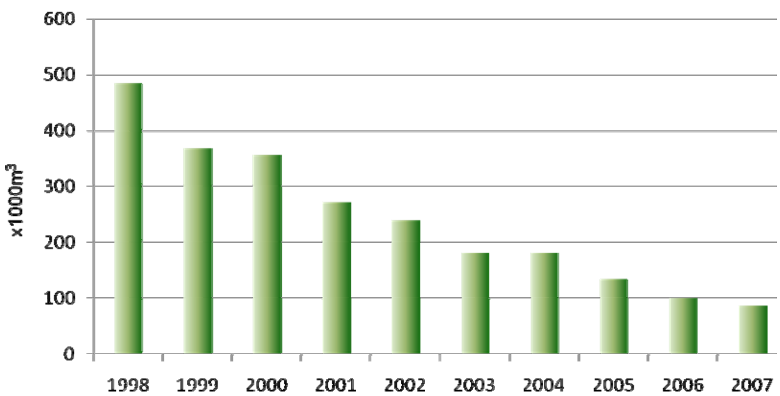
ROUNDWOOD

In 2007, the Portuguese imports of roundwood reached 528,000 m^3 of which 16% were tropical hardwoods:

- softwoods: 172,000m^3, of which 162,000m^3 from Spain (maritime pine is the main specie imported;
- tropical hardwoods: 86,000m^3;
- temperate hardwoods: 270,000m^3, of which 20,000 m^3 of oak, and, 11,000 m^3 of beech.

To mention that the 270,000m^3 of imported temperate Hardwoods, 113,000m^3 were declared by importers as "Other", so it is difficult to assess which species of wood are in question[1].
According to the analysis of statistics from Eurostat, it is possible to verify that these 113,000m^3, about 14,000m^3, were imported from countries that are known as exporters of tropical timber, such as Cameroon (2,000m^3), Central African Republic (1,200m^3), Congo (1,700m^3), Democratic Republic of Congo (3,200m^3) and Gabon (7,000m^3)!

Figure 2.1.1 – Portuguese Tropical Roundwood Imports



Source: Eurostat

Over the past 10 years, it is clear that the decrease in imports of Tropical Round Hardwood, has contributed to the fact that the national importers are purchasing more lumber and less roundwood; at the same time, the importing companies are in the process of decommissioning technology of sawmills and running ever more as commercial warehouses or manufacturers.

Presently, there are less than 6 Tropical Round Hardwood sawmills in activity in Portugal.

[1] Due to excessive use of the description "others" – which was intended by the World Customs Organization in the Harmonized Commodity Description and Coding System (also known as Harmonized System) to aggregate goods traded in small amounts – in some situations it is not easy to get the proper values for a specific item of goods. Importers around the world, in their customs declarations, will often report all species under one grouping, namely "others". Customs authorities tend to control the reliability of the product groups, but usually they do not control whether the identification of species is correct.

To reduce transportation costs and due to international laws, the Portuguese Tropical Sawmillers are minimizing their activity. However, the import of Tropical logs is still being made for the production of specific sizes and quality grades, veneer and plywood manufacturers.

Figure 2.1.2: Production, Trade and Consumption of Tropical Round Hardwood in Portugal

Source: Eurostat

The main imported species are: sapelli (most common species to sawmill and veneer, with subsequent use in carpentry and furniture), acajou and iroko/cambala (most common species in exterior applications). Others species, imported in lower quantities: bubinga, kotibé, pao rosa, sipo, tiama, afzelia, izombé, niove, movingui, mutene, niangon, samba, padouk, tali, and tola.
Considering the production capacity, about 30,000m^3 of the 86,000 m^3 of Tropical logs imported will end up manufactured as veneer sheets.

Table 2.1.1
Portugal - Tropical Roundwood Imports by country

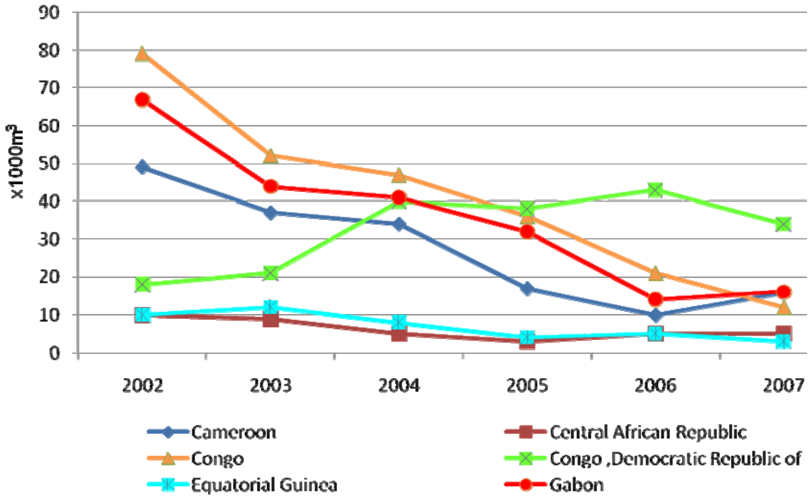
m^3	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Cameroon	48,688	37,467	33,821	17,377	10,377	15,813
Central African Republic	10,060	9,437	5,077	2,937	5,060	4,994
Congo	78,968	51,957	47,402	35,686	21,294	12,267
Dem. Republic of Congo	18,374	21,463	39,966	38,358	43,480	33,556
Equatorial Guinea	9,667	12,319	7,519	4,475	4,535	2,766
Gabon	67,094	44,209	41,455	32,396	13,648	15,634
Other	5,010	1,273	1,359	2,012	130	443
Total Extra-EU27	237,861	178,125	176,599	133,241	98,524	85,473
France	1,916	2,963	2,246	506	1,293	92
Spain	208	300	1,242	335	351	542
Other	0	1	651	90	0	68
Total Intra-EU27[2]	2,124	3,264	4,139	931	1,644	702
Total	**239,985**	**181,389**	**180,738**	**134,172**	**100,168**	**86,175**

Source: Eurostat

[2] The Intra EU27 trade represents transhipments via European ports, mainly from South America and Africa.

Portugal bases the purchase of tropical round hardwood in the West African Coast, also known as Congo Basin region.
In 2007, the Democratic Republic of Congo, Cameroon and Gabon supplied 76% of the Portuguese needs.

Figure 2.1.3:
Portugal – Tropical Roundwood Imports by country, 2002 - 2007



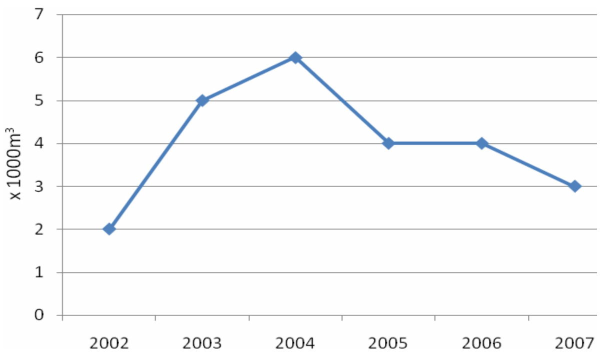
Source: Eurostat

Table 2.1.2:
Portugal - Tropical Roundwood Import by Species

m^3	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Sapeli, Iroko, Acajou d'Afrique	131,937	89,662	90,491	65,784	53,072	48,609
Okoumé	926	692	94	0	0	975
Sipo	4,665	4,874	2,374	813	1,213	1,114
Other	102,457	86,161	87,779	67,575	45,883	35,477
Total	**239,985**	**181,389**	**180,738**	**134,172**	**100,168**	**86,175**

Source: Eurostat, Comtrade

Figure 2.1.4:
Portugal - Tropical Industrial Roundwood Exports



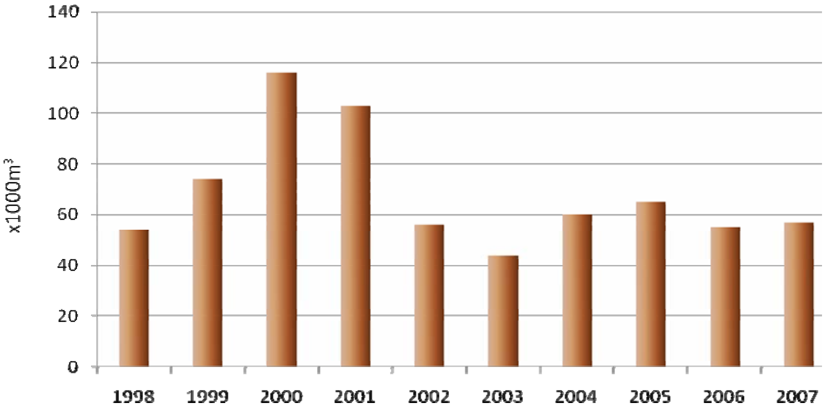
Source: Faostat

The Portuguese exports values are insignificant and they report sales to Spain.

SAWNWOOD

The growth in imports of tropical sawnwood is evident from the mid-90s, when the construction activity in Portugal was in development, driven by the completion of Expo 98 in Lisbon.

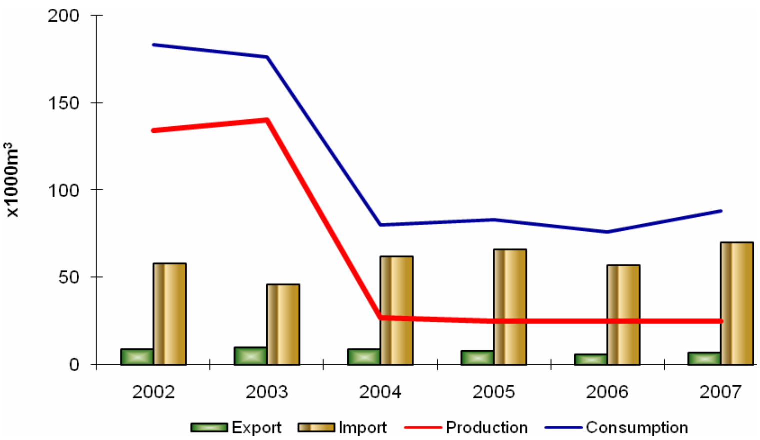
Figure 2.1.5:
Portugal - Tropical Sawn Hardwood Imports



Source: Faostat

The fluctuations observed in recent years, not only have to do with the rotation of stock, but with market conditions and changes in price and trend. It should be noted that the American Hardwoods implemented in the Portuguese market in the 90s, the result of a strong campaign developed by the American Hardwood Export Council, taking as a serious alternative to tropical hardwoods.

Figure 2.1.6:
Production, Trade and Consumption of Tropical Round Hardwood in Portugal



Source: Eurostat, ITTO

The statistic do not mention directly which of the main species are imported, since that the majority is named by “Others”. Through the consult of the bibliography of various organizations it is possible to conclude that the main sawn tropical species imported are:

- from Africa: Afzelia/doussie, sapelli, iroko, tali and wenge;
- from South America: ipe, cerejeira, sucupira,garapa,jatoba, cumaru and massaranduba;
- from Asia: teak and merbau.

Other species, imported in lower quantities: niangon, acajou, izombe, tola, badi, bosse, bubiga, kotibe, afromosia, padouk, movingui,mutene,okoume, pau rosa,sipo,niove,tiama, dibetou,samba yatandza and zebrano(from Africa); tatajuba,tauari,amapa,angelim pedra, androba, pau amarelo, jacaranda, louro vermelho and muiracatiara (from South America).
The imported wood is mostly always kiln dry.

Table 2.1.3:
Portugal - Tropical Sawnwood Import by Species

m^3	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Mahogany, virola, inbuia and balsa	61	57	17	88	1,444	425
Dark red meranti, light red meranti and meranti bakau			57	5		50
White lauan, white meranti, white seraya, yellow meranti and alan	1,026	1,013	1,204	961	443	1,192
Sapelli						7,648
Iroko						2,992
Other	56,918	44,936	60,391	65,014	55,699	57,221
Total	**58,005**	**46,006**	**61,669**	**66,068**	**57,586**	**69,528**

Source: Eurostat, Comtrade

Sapelli and iroko were not part of the Harmonized System product description before 2007; they were named as “Other”. From now on sapelli and iroko will appear in the statistics, and will be possible to evaluate their influence in the exports of African producing countries.

The Tropical Hardwoods lost almost 20% market share in the first seven years of this century.
Lower prices, availability and fashion contributed for the increase of the light colored woods market share.

Brazil is by far the main supplier of Tropical Sawn Hardwood, taking market share from African countries. In the next years, this trend will go on, due to the reduction in the construction activity.
In Portugal, the Tropical Sawnwood is used for joinery products, such as decking, flooring, doors, staircases and windows.

Table 2.1.4:
Sawnwood imports: Market Shares in Portugal

	2000	2007
Softwood	15%	33%
Temperate Hardwoods	31%	32%
Tropical Hardwoods	54%	35%
	100%	100%

Source: Eurostat

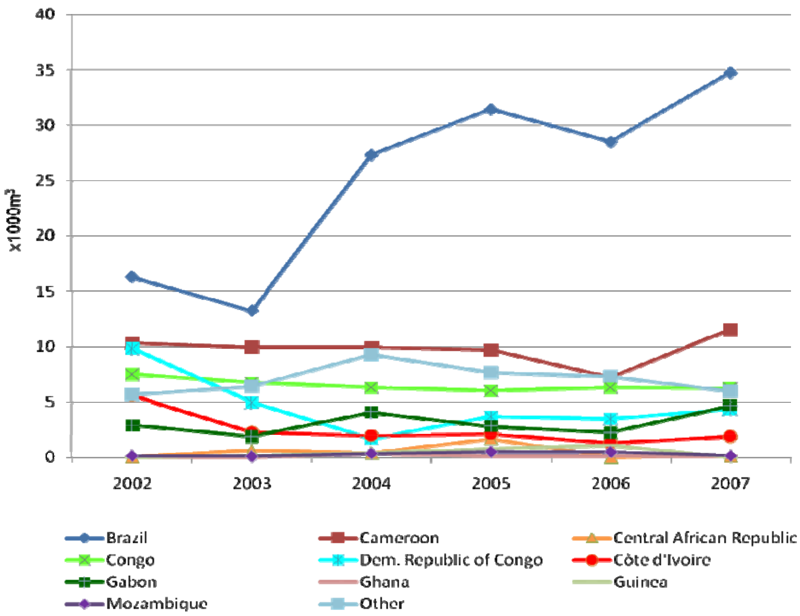
Table 2.1.5:
Portugal - Tropical Sawn Hardwood Imports by country

m^3	2002	2003	2004	2005	2006	2007
Brazil	16,285	13,222	27,315	31,427	28,470	34,774
Cameroon	10,260	9,930	9,873	9,647	7,224	11,484
Central African Republic	46	559	391	1,634	0	122
Congo	7,450	6,725	6,252	5,984	6,254	6,213
Dem. Republic of Congo	9,794	4,946	1,611	3,646	3,436	4,303
Côte d'Ivoire	5,566	2,237	1,942	2,089	1,255	1,834
Gabon	2,841	1,816	4,059	2,746	2,177	4,650
Ghana	0	0	316	64	55	79
Guinea	22	123	337	755	1,009	0
Mozambique	81	45	303	448	425	89
Other	1,648	201	11	414	729	968
Total EXTRA-EU27	53,993	39,804	52,410	58,854	51,034	64,516
Italy	0	81	167	166	1,423	1,015
Netherlands	14	3,292	3,168	1684	279	18
Spain	2,137	1,841	4,322	4,365	4,440	2,721
Other	1,861	988	1,602	999	410	1,258
Total INTRA-EU27[3]	4,012	6,202	9,259	7,214	6,552	5,012
Total	**58,005**	**46,006**	**61,669**	**66,068**	**57,586**	**69,528**

Source: INE, Eurostat, Comtrade

[3] Transhipments via European ports, mainly from South America and Africa

Figure 2.1.7:
Portugal - Tropical Sawn Hardwood Imports by country

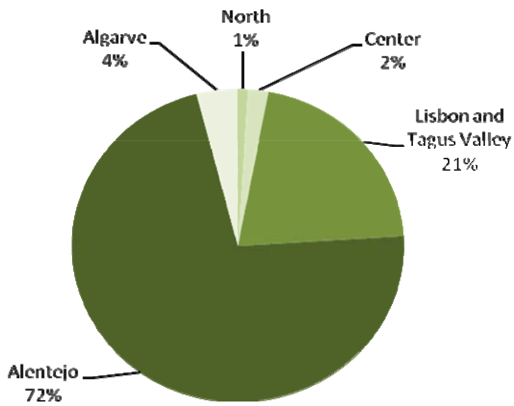


Source: INE, Eurostat, Comtrade

2.2 Cork Industry

The cork forest is responsible for making a very important contribution to the economy and the ecology of seven Mediterranean countries, with a global area of 2.3 million hectares. Portugal has 33% of that area, with 730,000 ha of cork oak forestland. The largest concentration of cork oaks in Portugal can be found in the Alentejo (72%); Lisbon and the Tagus River Valley regions hold the second largest area with a 21% share.

Figure 2.2.1:
Portuguese Cork Forest Area by region



Source: DGRF

On a global production level (with cork production values rising up to 300,000 tonnes, yearly), 52.5% of cork originates from Portugal.

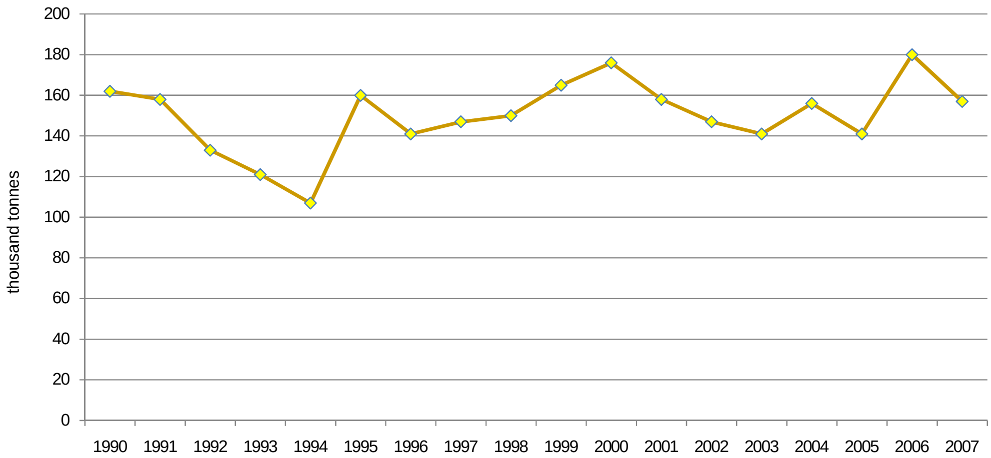
Table 2.2.1:
Cork Production in the World

Country	Annual Production Average (tonnes)	%
Portugal	157,000	52.5
Spain	88,400	29.5
Italy	17,000	5.5
Algeria	15,000	5.2
Morroco	11,000	3.7
Tunisia	7,500	2.5
France	3,400	1,1
Total	299,300	100,0

Source: APCOR

The year 2000 registered a peak of 176,000 tonnes in the Portuguese cork production, as shown in the Figure 3.3.2.

Figure 2.2.2:
Portuguese Cork Production, 1990 - 2007 (estimated values)



Source: SICOP and APCOR

The Portuguese Cork Industry is distributed over twelve districts. However, the industry's concentration is significant only in the Aveiro (Santa Maria da Feira Municipality) and Setúbal districts, both being responsible for about 75% and 13% of the industries employment, respectively.
There are approximately 800 companies operating in the Portuguese cork sector; they are responsible for producing approximately 40 million cork stoppers a day (of which 35 million in the north of Portugal) and employing about twelve thousand workers[4].
This economic activity is heterogeneous, with small artisans and highly advanced technology companies working in the same region, side-by-side.
The production activities are Preparation, Manufacture, Agglomeration and Granulation. These different branches of the cork industry are highly dependent from each other.
APCOR estimates that the cork placed in the production process has, on average, the following applications:

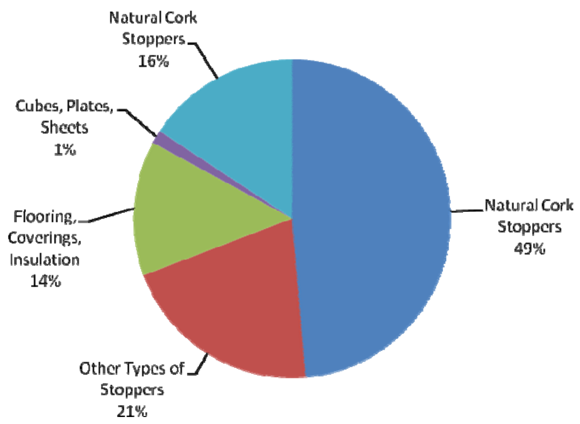
- thin cork: 30%
- byproduct/waste: 25%
- pieces: 5%
- stoppers: 40%

The main destination sector for cork products is the wine industry, which absorbs 69% of all production, followed by the building industry with 13%.

Figure 2.2.3:

[4] Source: INE

Structure of cork sales per product type in 2007



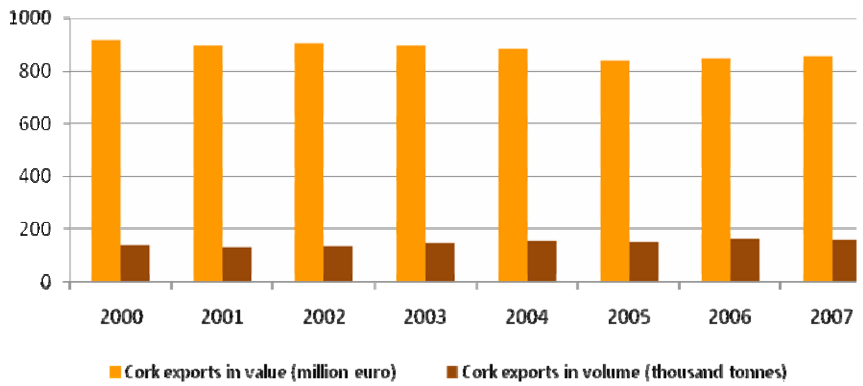
Source: APCOR

- ## Cork Products Exports

Portugal is world leader in cork exports, with 60%[5] share, which means that 90% of the cork processed nationally is destined for the international market.
This proves to be an important source of income for Portugal. In 2007, the exports reached 853.8 million euro - 159 thousand tonnes of products exported.

The value generated by Portuguese cork exports is considerable, standing at approximately 0.7% of the GDP (market prices), 2.3% of the Portuguese exports' total value and about 30% of the Portuguese forestry product exports.

Figure 2.2.4:
Portuguese Cork Exports, 2000 - 2007

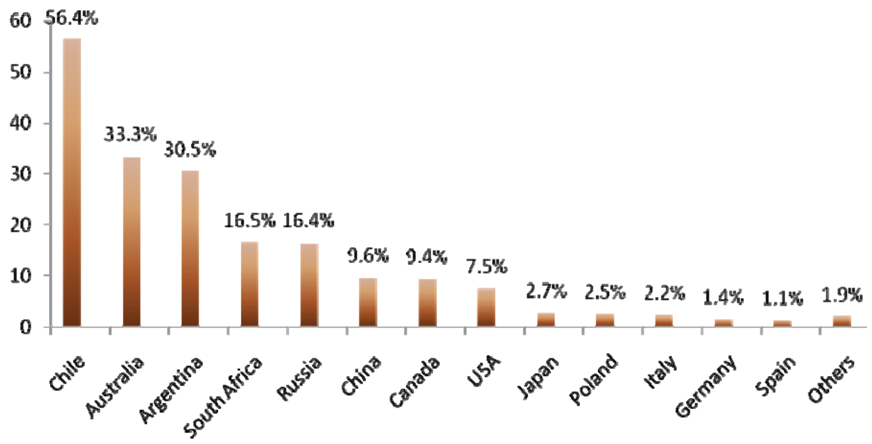


Source: INE, Comext

[5] Source: FAOStat

Concerning the represent ability of the cork exports combined per country, it is noteworthy that cork represents more than 50% of the value exported to Chile. For both Australia and Argentina this value surpasses 30%.

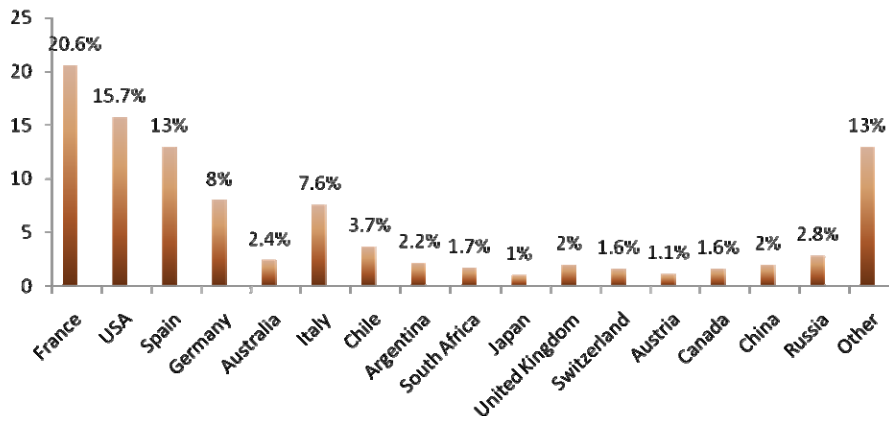
Figure 2.2.5:
Percentage of cork exports in relation to total Portuguese exports, 2007



Source: INE, Comext

Europe is the main destination for Portuguese cork exports absorbing 52% of the total. The primary countries are France (20.6%), the USA (15.7%), Spain (13 %), Germany (8%) and Italy (7.6%).

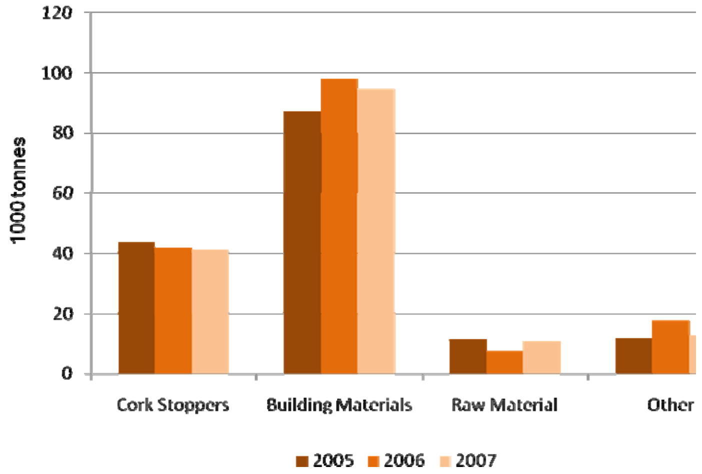
Figure 2.2.6:
Portuguese cork exports by country in 2007



Source: INE, Comext

Cork stoppers continue to lead the Portuguese cork exports with a value of 590 million euro, followed by cork building materials at 176 million euro.
However in export volume, building materials lead the product chat at 94,000 tonnes, followed by cork stoppers at 41,000 tonnes.

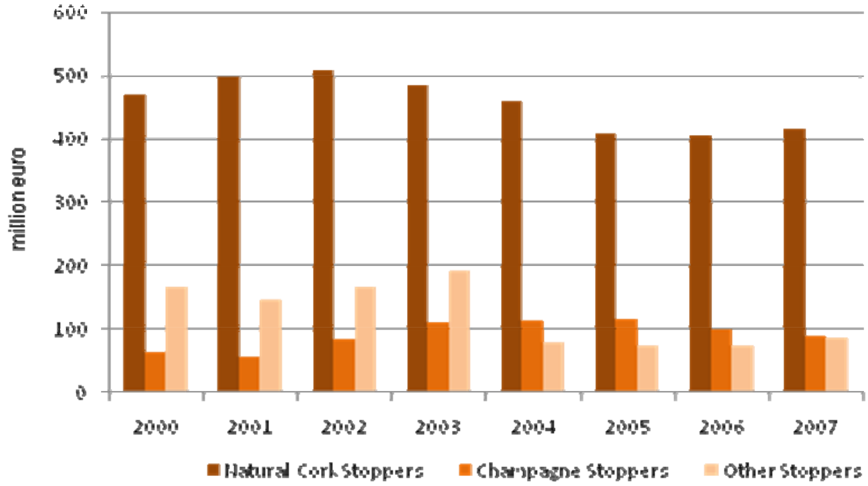
Figure 2.2.7:
Portuguese cork exports: main products, 2005 - 2007



Source: INE, Comext

Within the cork stopper segment, natural cork stoppers rise in first place, with 415 million euro, followed by champagne stoppers, with 88 million, and remaining stoppers, including technical, agglomerated corks, 1+1 and other (86 million euro).

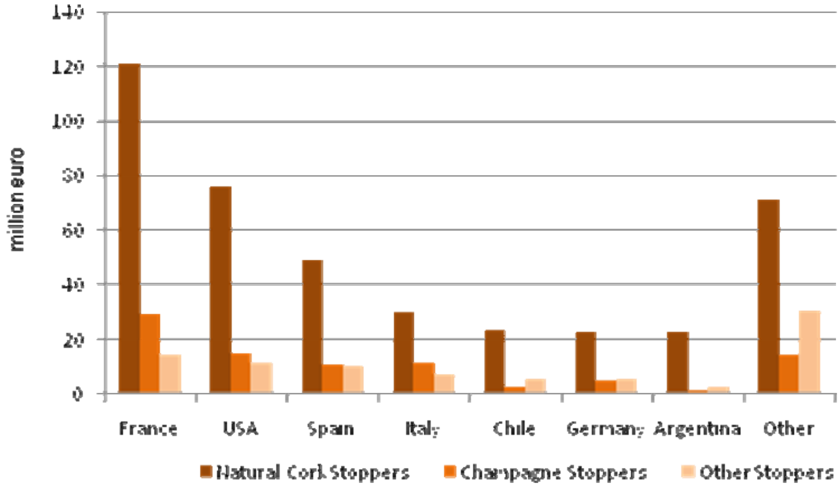
Figure 2.2.8:
Portuguese Cork Stoppers exports, 2000 - 2007



Source: INE, Comext

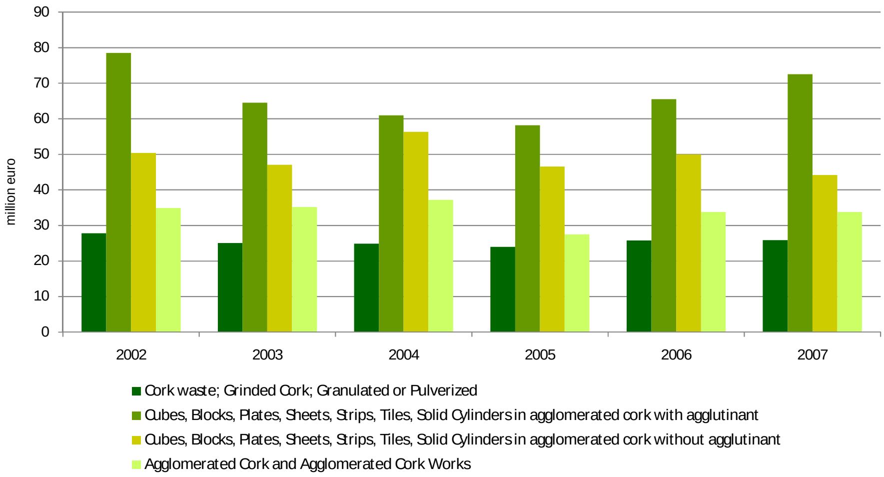
The main country consuming natural cork stoppers is France, with 120 million euro, followed by the USA, with 75 million euro. France also leads the consumption of champagne cork stoppers, with 29 million euro, leaving the USA occupying second place, with 15 million euro.

Figure 2.2.9:
Portuguese Cork Stoppers Exports by country, 2007



Source: INE, Comext

Figure 2.2.10:
Portuguese Cork Exports Building Materials, 2000 - 2007

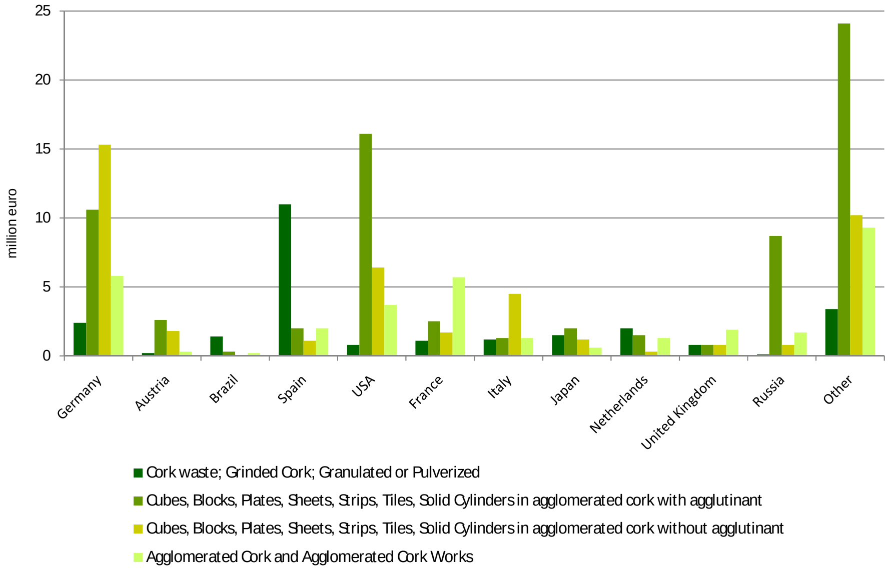


Source: INE, Comext

Concerning building materials, the main export products are cubes, blocks and other agglutinant products, representing 72 million euro and 28,000 tonnes. Subsequent to these, at 44 million euro and 26,000 tonnes, are other similar products without the agglutinant. The first product suffered a loss in 2005, however recovered the following year by 7 million euro.

The USA is the largest importer of cubes and blocks with agglutinant, comprising 16 million euro in 2007, followed by Russia with 8 million euro. Regarding the second most exported product – cubes and blocks without agglutinant, Germany holds the lead, with 15 million euro, followed by the USA with 6 million euro.

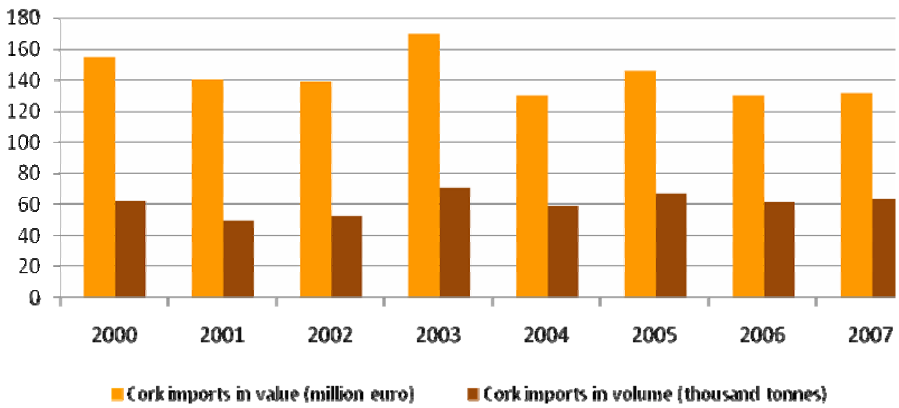
Figure 2.2.11:
Portuguese Cork Exports Building Materials by countries in 2007



- **Cork Products Imports**

Portugal is still the world's greatest importer of cork, which is processed and subsequently exported as final consumer products. In 2007, imports reached 131 million euro and 63,000 tonnes.

Figure 2.2.12:
Portuguese Cork Imports, 2000 – 2007

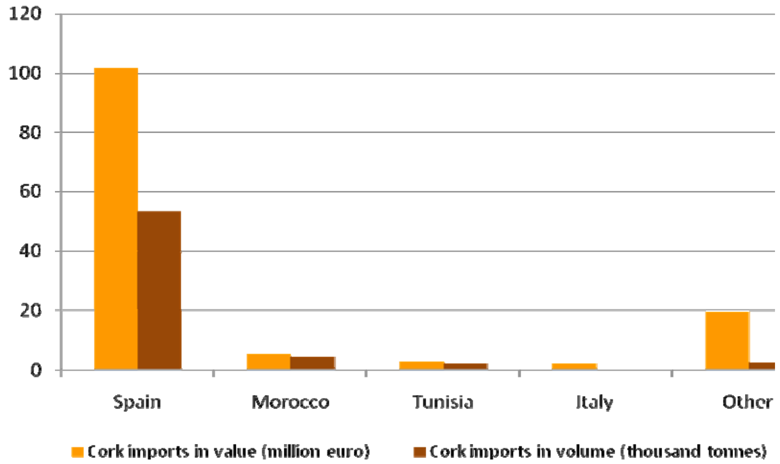


Source: INE, Comext

The imports for the cork industry, in 2007, originated essentially from Spain (77% – the equivalent to 101 million euros).

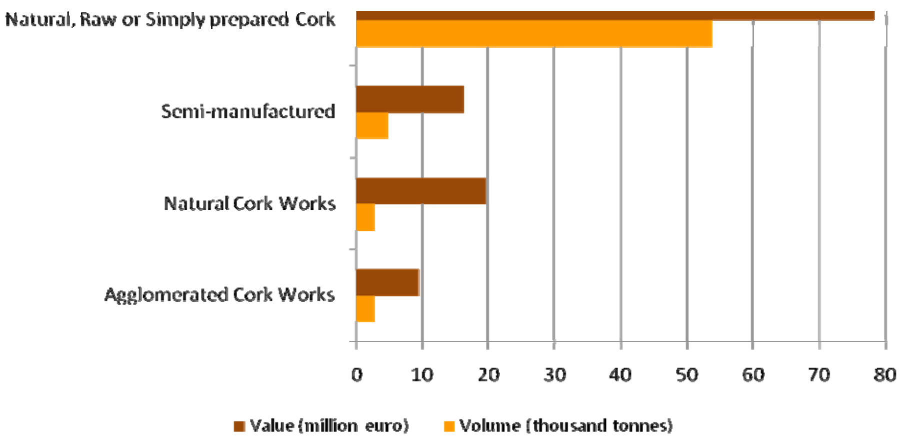
Natural cork imports increased to approximately 78.3 million euros, in that year, which roughly represents 59.4% of the total Portuguese cork imports.

Figure 2.2.13:
Portuguese Cork Imports by country in 2007



Source: INE, Comext

Figure 2.2.14:
Portuguese Cork Imports by product in 2007



Source: INE, Comext

APPENDICES

Appendix I

WWF position about Forest Certification

WWF believes that responsibly managed forests are necessary for the maintenance of biodiversity and ecosystems services, both on individual sites and within the wider landscape. Forest management, including intensive commercial management, can be a critical and cost-effective conservation tool within larger-scale conservation strategies.
Well-managed commercial or community forests can for example provide vital buffers for and links between protected areas. Forest management should therefore seek to maintain forest quality and not degrade either the timber resource or the range of associated goods and services (non-timber forest products, environmental services, biodiversity, spiritual values, recreational uses etc).
Forest certification is a mechanism for forest monitoring, tracing and labelling timber, wood and pulp products and non-timber forest products, where the quality of management from environmental, social, and economic perspectives is judged against a series of agreed standards. The key to forest certification is the development of a system that combines auditing forest practices with tracing forest products.

WWF sees credible forest certification as a tool to:

- Promote socially, environmentally and economically responsible forest management;
- Safeguard biological diversity in managed forests including High Conservation Value Forests;
- Respect the ownership and use rights of local communities and indigenous peoples;
- Provide a forum for dialogue between different stakeholders and establish frameworks for resolution of social conflict over utilization of forest resources;
- Ensure transparency of both forest management and the forest products trade; and
- Provide a market mechanism allowing companies and consumers to identify and purchase timber and non-timber forest products from well-managed forests.

During the last decade forest certification has become a significant market mechanism to promote responsible forest management and there is today a proliferation of certification schemes around the world. However, these vary widely in their standards, consistency, transparency, means of verification and in the degree to which governance is open to different stakeholders. Thus, the extent to which different schemes ensure, and credibly communicate, responsible forest management varies considerably.

To meet WWF's basic requirements of promoting improvement in forest management, transparency, international consistency and balanced multi-stakeholder governance, a forest certification scheme should be based on the following criteria:

- Compatibility with international frameworks for certification accreditation and standard setting;
- Compatibility with globally applicable principles that balance economic, ecological, and equity dimensions of forest management;
- The meaningful and equitable participation of all major stakeholder groups in governance and standard setting;
- Avoidance of unnecessary obstacles to trade;
- Objective and measurable performance standards that are adapted to local conditions;
- Certification decisions free of conflicts of interest from parties with vested interests;
- Transparency in decision making and public reporting;
- Reliable and independent assessment of forest management performance and chain of custody;
- Delivery of continual improvement in forest management;
- Accessibility to and cost-effectiveness for all parties; and
- Voluntary participation.

In collaboration with the World Bank, WWF has developed a methodology, The Forest Certification Assessment Guide (FCAG)[6], and used it to evaluate various certification schemes. These assessments[7, 8, 9], as well as other evaluations [10, 11, 12] demonstrate that, while there is considerable room for improvement in all schemes, Forest Stewardship Council (FSC)[13] certification best meets WWF's key requirements.

Thus, while WWF acknowledges that several schemes may contribute to improve forest management, the organization will continue to focus its active efforts on improving the FSC system, on adapting FSC certification to different scales and national contexts, and on promoting the FSC logo as an internationally recognized hallmark of responsible forest management.

WWF will collaborate with forest stakeholders to:

- Further develop and strengthen the FSC as a credible certification system through active membership in the FSC environmental chamber;
- Provide support to certification schemes conditional on commitment to attain or maintain credibility as defined by FCAG;
- Support the development of national standards that fulfil WWF requirements for credible certification including the development of single national standards that can be endorsed by several systems if appropriate;
- Promote responsible forest management as well as trade and use of credibly certified products through the WWF Global Forest & Trade Network[14];
- Promote the development and implementation of mechanisms to help local and indigenous communities and small forest owners to access certification;
- Promote the expanded application of certification to non-timber forest products and other environmental services provided by forests;
- Encourage the FSC label on products containing wood from FSC-certified forests in order to increase the visibility of the FSC label in the market place, and
- Promote the FCAG as a tool to evaluate the credibility of international and national certification schemes.

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6 Download the FCAG at http://assets.panda.org/downloads/fcagfinal.pdf

7 *Forest Certification Assessment Guide (FCAG) Generic Analysis of the FSC and PEFCC International Systems,* Martin Walter – to be publicised

8 *Forest Certification Credibility Assessment in Indonesia applying the Forest Certification Assessment Guide on a National Level*, Alexander Hinrichs and Agung Prasetyo, http://www.panda.org/news_facts/publications/index.cfm?uNewsID=102420

9 *Analyses of certification schemes in Malaysia using the WWF/World Bank Global Forest Alliance Forest Certification Assessment Guide,* Richard Robertson - to be publicised

10 *The Effects of PEFC-Certification – An Analysis of Audit Reports of PEFC Germany*, Peter Hirschberger - http://assets.panda.org/downloads/theeffectsofpefccertificationfinal.pdf

11 *Confronting sustainability: Forest Certification in Developing and Transitioning Countries*, Cashore et al, Yale School of Forestry & Environmental Studies, 2006

12 *Does Forest Certification Matter? An Analysis of Operation-Level Changes Required During the SmartWood Certification Process in the United States* - Deanna Newsom, Volker Bahn and Benjamin Cashore - http://www.rainforest-alliance.org/resources/documents/doesforestcertmatter.pdf

13 For more info about FSC see www.fsc.org

14 For more information about GFTN see www.panda.org/gftn

Appendix II

Acronyms and Abbreviations

AIMMP	Associação das Indústrias de Madeira e Mobiliário de Portugal
ATIBT	International Technical Tropical Timber Association
COMTRADE	United Nations Statistics Division Commodity Trade
EUROSTAT	Statistical Office of the European Communities
FAO	Food and Agriculture Organization of the United Nations
INE	Instituto Nacional de Estatística (Portugal)
m^2	square meter
m^3	cubic meter
UNECE	United Nations Economic Commission for Europe

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Appendix III

Websites, reports and documentation consulted

AIMMP
- Estudo Estratégico das Indústrias de Madeira e Mobiliário, 2007 edition
- Dados Sectoriais, ed. 2007
- O Mercado Português das Indústrias da Madeira e do Mobiliário, 2004 – 2005 edition

APCOR
- Anuário, 2009 edition

Banco de Portugal
- Boletim Económico de Inverno, 2009 edition

Celpa
- Anuário 2006
- Anuário 2007

DGRF
- Inventário Florestal Nacional, 2006 edition
- Estratégia Nacional para as Florestas, 2007 edition

EU
- Competitiveness of the European Union: Woodworking Industries, 2000 edition
- Forestry Statistics 1990-2002, 2003 edition
- European Business – Facts and Figures, 2007 edition
- External and Intra-European Union Trade Statistical yearbook - 1958-2006, 2008 edition
- External and intra-European Union trade - Statistical yearbook — Data 1958-2006, 2008 edition
- Forestry Statistics 2005 – Pocketbook, 2007 edition

FAO
- State of the World's Forests 2007 edition
- Statistical Yearbook 2005-2006, Vol. 1 and Vol. 2

INE - Portugal
- Classificação Portuguesa das Actividades Económicas, rev. 3, 2007 edition
- Estatísticas da Produção Industrial 2006, 2008 edition
- Anuário Estatístico de Portugal 2006, 2007 edition
- Anuário Estatístico de Portugal 2007, 2008 edition

Instituto para a Qualidade na Formação
- A Indústria da Cortiça em Portugal, 2005

ITTO

- Annual Review and Assessment of the World Timber Situation, 2006
- Annual Review and Assessment of the World Timber Situation, 2007
- Tropical Timber Market Report, Vol. 13 (N. 1 – N.11)
- Review of the Portuguese Timber Market, 2008

UCIP/UCBD

- European Imports of Tropical Timber, 2003
- European Imports of Tropical Timber, 2004
- European Imports of Tropical Timber, 2005
- European Imports of Tropical Timber, 2006
- European Imports of Tropical Timber, 2007

UNECE

- Forest Products Annual Market Review, 2006 – 2007
- Forest Products Statistics, 2002 - 2006
- Forest Products Statistics, 2003 - 2007

Websites with useful information

List of the main bibliographic/websites consulted:

- AIMMP – Associação das Indústrias de Madeira e Mobiliário de Portugal (*www.aimmp.pt*)
- APCOR – Associação Portuguesa de Cortiça (*www.apcor.pt*)
- CELPA – Associação da Indústria Papeleira (*www.celpa.pt*)
- AFN – Autoridade Florestal Nacional (*www.dgrf.min-agricultura.pt/portal*)
- INE – Instituto Nacional de Estatística (*www.ine.pt*)
- COMTRADE – United Nations Statistics Division Commodity Trade (*http://comtrade.un.org/db*)
- EUROSTAT- Statistical Office of the European Communities (*http://epp.eurostat.ec.europa.eu/portal*)
- UNECE – United Nations Economic Commission for Europe (*www.unece.org/trade/timber*)
- FAO – Food and Agriculture Organization of the United Nations (*www.fao.org/forestry*)
- ITTO – International Tropical Timber Organization (*www.itto.or.jp*)

WWF is one of the world's largest and most respected independent conservation organizations, with almost 5 million supporters and a global network active in over 100 countries.

WWF's mission is to stop the degradation of the earth's natural environment and to build a future in which humans live in harmony with nature, by:

- Conserving the world's biological diversity;
- Ensuring that the use of renewable natural resources is sustainable;
- And promoting the reduction of pollution and wasteful consumption.

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