Chapter 3
Romania's forest products markets [1]

Highlights

- *Romania's forest products industry is recovering from a serious downturn following political and economic changes in 1989 and is poised to make considerable improvements in production and trade.*
- *Roundwood removals have risen slightly in the past few years, and for many important species, removals are half of their unsustainable levels in the 1980s.*
- *Sawnwood production increased strongly in 2000, by roughly 20% over the levels in 1999, and now production approaches levels in 1988 (before transition to the market economy started), but remains 27% below the peak in 1985.*
- *Production of many other wood products increased in 2000 although only sawnwood and furniture have exceeded 1990 levels.*
- *Owing to low, but growing domestic demand, development of the Romanian wood industry is contingent on increasing exports.*
- *After climbing by 75% in value since 1990, wood products exports are almost 10% of all of the country's exports combined.*
- *The wood-based panels industry has had recent capacity increases, partly through foreign investment, and although MDF exports have been initiated, higher particle board imports result in a negative trade balance for the panels sector.*
- *Romania's rich forest resources, predominantly hardwoods, supply the country's current needs as well as for roundwood exports which have increased sharply since their liberalization in 1998.*
- *Exports of sawnwood, combined with higher production of wood products, were the causes of unsustainable harvest levels before 1990.*
- *Initiation of certification of sustainable forest management is planned for 2001; however, there are no certified forest products sold in Romania at present.*

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Secretariat introduction

The secretariat would like to thank Mrs. Constanta Istratescu, Scientific Secretary, National Institute of Wood, Bucharest, for coordinating and producing this chapter with its valuable insight into the forest and forest industry sector in Romania. The much appreciated contributions of the co-authors, Mrs. Aurica Sereny, Deputy General Director, Ministry of Industry and Resources and Mr. Gheorghe Parnuta, Scientific Secretary, Forest Research and Management Institute, enabled additional enlightening information to be incorporated into the chapter. We take this opportunity to thank all the other people in Romania who provided information and statistics, drafted the graphics and translated the first draft.

With the information in the chapter, the balance between the forests in Romania and the forest industries becomes clear, as well as the tremendous influence of the political and economic changes on the sector. Evidently the Romanian forest and forest industry sector is making important gains in 2000 and 2001.

This chapter is part of a series of special chapters focussing on one of the UNECE region country's forest products markets. A listing of past chapters may be found in the annex.

3.1 General economic development

Since 1989, Romania has seen major political changes. The end of the Council for Mutual Economic Assistance (CMEA) system led to a severe drop in Romanian exports. The privatization process started slowly due to the lack of proper legislation. The decrease in industrial production led to increased unemployment and reduced investments. In agriculture the changes in ownership structure from large collective farms, poor endowment and poor financial standing of the new land owners, hindered obtaining of results envisaged.

Since the beginning of the transition period the gross domestic product has been below the level of 1990 (table 3.1.1). However, for the first time, in 2000, GDP recorded a real growth, of 1.6% compared with 1999. This was a result of the boosting of activities and consequently the increase of gross added value in the manufacturing industry (6.1%), in the building construction sector (6.3%) and in services (3.1%). The same trend has been also recorded thus far in 2001. For the first quarter of 2001, the industrial production increased by 13% in absolute volume compared to the same period in 2000, due mainly to increases in the processing industry (17.1%).

The around 10% unemployment rate during the last 10 years, together with skyrocketing prices, has reduced domestic demand for industrial goods, thus reorienting the industry towards exports (table 3.1.2). This is true also for wood industry products, demand for which is influenced by demographic factors, consumer spending and construction.

The population of Romania was estimated at 22.4 million in January 2001, representing a gradual decrease by 0.77 million from 1990; 51.1% of the population is female, 55% lives in urban areas and 45% in rural areas and 8.8 million persons are employed. In 1998 the average consumer spent 57.2% of his expenditure on food, 14.6% on services and 28.2% on non-food products. Building construction has been decreasing from 1996 to 2000 (graph 3.1.1). However, housing construction prospects are bright for the next years. At the end of 2000 there were about 65,336 dwelling units in various stages of construction compared to 22,445 at the end of 1999.

The prohibition of imports before 1990 and the lack of diversification of value-added products have led to a massive increase in imports. During 2000 the monthly average exports of $836.9 million represented the highest recorded level since 1989.

TABLE 3.1.1

Romania's economic indicators, 1993 to 1999
(1990 = 100)

	1993	1994	1995	1996	1997	1998	1999
Consumption (Total)	84.3	87.5	97.0	103.7	99.3	95.3	..
Household consumption	78.2	80.2	90.7	98.0	94.4	90.0	..
Share of private sector in the GDP (%)	34.8	38.9	45.3	54.9	60.6	61.0	61.5
Gross domestic product	80.6	83.8	89.8	93.4	87.7	83.0	80.3

Note: Data on year-by-year basis.

Sources: Romanian Statistical Yearbook, 1999 and Statistical Bulletins, 1/2000 and 1/2001.

TABLE 3.1.2

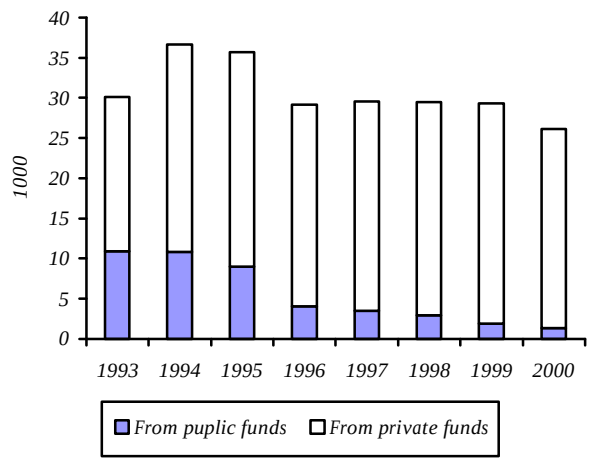
Consumer price i ndices in Romania, 1993 to 2000
(Previous year = 100)

	1993	1994	1995	1996	1997	1998	1999	2000
Food goods	348.9	236.2	131.9	136.4	251.4	148.4	127.9	143.7
Non- food goods	369.0	232.8	129.6	139.1	252.5	160.2	152.3	144.0
Services	340.3	250.8	142.7	146.9	276.5	192.1	184.0	153.9
TOTAL	356.1	236.7	132.3	138.8	254.8	159.9	145.8	145.7

Sources: Romanian Statistical Yearbook, 1999, and Statistical Bulletins, 1/2000 and 1/2001.

GRAPH 3.1.1

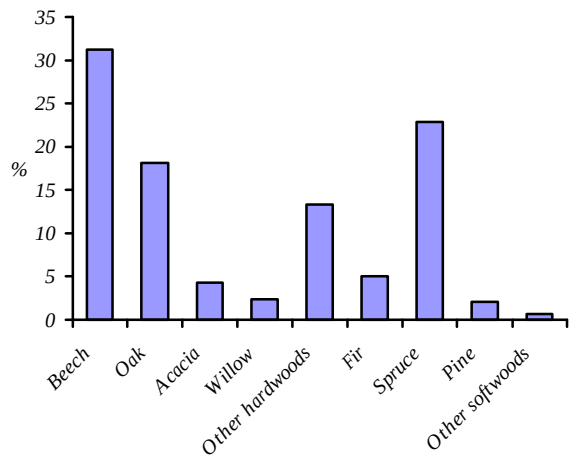
Finished dwellings in Romania, 1993 -2000



Sources: Romanian Statistical Yearbook, 1999 and Statistical Bulletins 1/2000, 1/2001.

GRAPH 3.2.1

Species composition of Romanian forests, 1999



Source: Statistic Yearbook of Romania, 1999.

The same situation can be seen for imports with an increase by 25.6% from 1999 and a monthly average of $1.1 billion in 2000 which resulted in on increase in the foreign trade deficit of $2.7 billion compared with $1.9 billion in 1999.

3.2 Forest resources

In Romania, forest and forest lands total 6.4 million hectares representing 26.7% of the total area of the country. Out of this, 6.2 million hectares is forest cover. Forests are categorized by their functions: 53.6% are "special protection forests"; and 46.4% are "production and protection forests".

Hardwood species occupy 69.3% of forest area and softwood 30.7%. The main hardwood species are beech and oak, and the main softwood species is spruce (graph 3.2.1). The percentage of oak species in forests is below optimum. Within the softwood species, the share of fir has been reduced over the last decades and spruce now represents 74.6% of the total softwood area.

The current uneven structure of age classes results in a shortage of removable stands (more than 100 years) and a deficit in pre-harvest stands of the 81 to 100 year class. The over-harvesting before 1990, i.e. over the allowable cut, resulted in this situation (graph 3.2.2). The actual share of exploitable forests is even more reduced because part of the stands exceeding 80 years are in areas with special protection functions or in areas with difficult access due to the lack of forest road networks. The present shortage in pre-harvest and mature tree stands will change the volumes and assortments of harvests. Readjusting the forests age structure will take a long time.

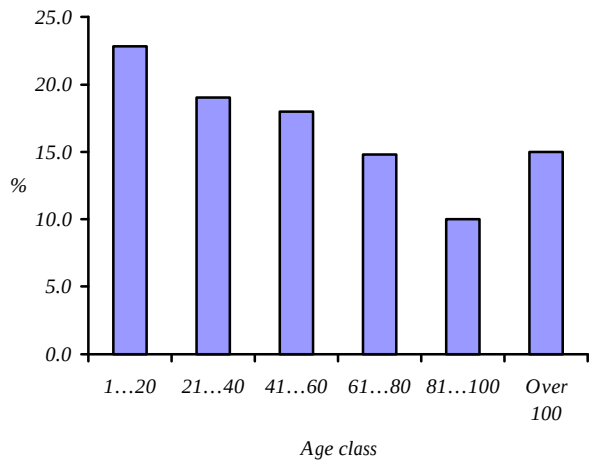
In the last decade the annual forest area regenerated has been around 20,000 ha, with natural regeneration representing about 50% of the total. Forest cover can be divided into plantations and natural regeneration (table 3.2.1).

The volume of afforestation achieved is not sufficient and the National Forest Administration recommended a dynamic new strategy aimed at increasing the share of natural regeneration to 55% by the beginning of 2002. It

also aims at improving afforestation structure by promoting local eco-types able to form the best diversified, sustainable and multiple-function forests.

GRAPH 3.2.2

Structure of forests by age class in Romania, 1999



Source : Sustainable Forest Management in Romania, National Forest Administration, 2000.

The national growing stock, according to the last inventory in 1985, is 1,341 billion m^3, an average of 215 m^3/ha. The annual growth is estimated at 5.4 m^3/year/ha (in case of softwoods 7.4 m^3/year/ha; beech 5.4 m^3/year/ha and oak 3.5 m^3/year/ha).

The maximum annual volume of removals is determined by the Government. In the last decade it was regularly below the allowable cut mainly due to low accessibility in the stands (table 3.2.2).

In 2000, of the 14.2 million m^3 commercial harvest, 12.9 million m^3 came from state forests under the management of the National Forest Administration and 1.3 million m^3 came from private and other forests. The volume from individual owners' and private forests amounted to 800,000 m^3. This volume reflects the present structure of ownership (table 3.2.3) resulting from the implementation of Forest Law 18/1991 which stipulates the restitution of ownership rights only for private owners, to a maximum of one hectare area per person deprived of their forest land in 1947. Current legislation will enable private forest owners to have 10 hectares each. This would accelerate privatization from the current 350,000 hectares to 2 million hectares in 2002.

TABLE 3.2.1

Afforestation in Romania, 1993 to 2000
(Hectares)

	1993	1994	1995	1996	1997	1998	1999	2000
Plantations	10,281	14,507	12,943	12,559	10,479	10,542	11,446	12,381
Coniferous trees	4,962	4,553	4,855	4,184	3,736	4,112	4,719	5,616
Broadleaved trees	5,319	9,954	8,088	8,375	6,743	6,430	6,227	6,765
Natural seeding	65	237	174	168	162	65	42	56
Coniferous trees	16	49	40	12	54	15	7	11
Broadleaved trees	49	188	134	156	108	50	35	45
TOTAL	10,346	14,744	13,117	12,727	10,641	10,607	11,488	12,437

Sources : Romanian Statistical Yearbook, 1999 and Statistic Report, Silv. 4, 1999 and 2000.

TABLE 3.2.2

Removals in Romanian forests, 1985 -2000
(1,000 m^3, gross volume)

	1985	1990	1995	1996	1997	1998	1999	2000
Coniferous	7,560	5,813	4,973	5,751	5,836	5,195	5,565	5,346
Beech	9,527	4,958	4,215	4,266	4,263	3,635	4,115	4,509
Oak	2,997	2,045	1,551	1,658	1,489	1,276	1,356	1,330
"Strong" hardwoods	2,958	2,071	1,774	1,876	1,757	1,491	1,585	1,729
"Soft" hardwoods	2,271	1,762	1,300	1,252	1,164	1,045	1,072	1,319
TOTAL	25,313	16,649	13,813	14,803	14,509	12,642	13,693	14,233

Sources : Romanian Statistical Yearbook, 1994 and 1999 and Statistic Report, Silv. 3, 1999 and 2000.

TABLE 3.2.3

Forest ownership area of Romanian forests, 1998
(1,000 hectares)

Public forests owned by the State	6,028.0
of which:	
- under management by National Forest Administration	6,003.0
Private forests	339.0
TOTAL	6,367.0

Source: Statistic Report, Silv. 1, 1998.

For 2001 the maximum allowable cut is 17.0 million m^3 of which 15.3 million m^3 is from forests owned by the State and managed by the National Forest Administration.

3.3 Institutional framework – forest policy

In Romania, the forestry sector and wood industry are separated. Beginning in 2001, the Ministry of Agriculture, Food and Forests draws up the policies for all forests, irrespective of their ownership. They directly control forest management. The same Ministry has full authority over the National Forest Administration. In accordance with the Government Regulation 173/2001 RNP, the 36 forests districts provide for unit management. As specified by forest management practices in the State forests and based on contractual arrangements, it can also manage private and communal forests. The forestry system implementation is under the control of 16 forestry and wildlife protection inspectorates under the same Ministry.

The most important legislative acts for the sustainable forest management are the Forest Bill (law 26 / 1996) and:

- *The bill regulating the forestry system and the forests management (1998);*
- *The bill of land register and estate advertising (1998);*
- *The bill of land fund (18/1991);*
- *The bill of environment protection (137/1995);*
- *The bill of hunting fund and wildlife protection (103/1996);*
- *The bill on Danube Biosphere Reserve (Law 82/1993).*

In forestry, Romania actively cooperates with international organizations and ensures the application according to the specific conditions of the country on sustainable forest management as established at UNCED in Rio (1992) and at the Ministerial Conference for Protection of Forests in Europe (Strasbourg 1990, Helsinki 1993 and Lisbon 1998).

The Ministry of Industry and Resources is the body responsible for implementing government policy in the field of industrial production and goods. The wood industry is under the coordination of the State Secretary for Industrial Development and of the General Direction for consumer goods, who establishes industrial strategy and policies for regional development, economic and industrial cooperation, attracting foreign investors, integrating into the EU and harmonizing legislation, accreditation of quality and international markets access.

The structural and economic transformations taking place in Romania and the need to speed up the restructuring and privatization process, together with the development of small and medium-sized enterprises (SMEs), resulted in setting up in 2001 a Ministry for SME Development and Cooperation. The newly established State Agency for Privatization and Capital Investment plays an active role in the privatization of state companies. The social and economic development programme is under the control of the Ministry of Projections and Development, which is responsible for the activity of the National Institute for Statistics and Economic Surveys.

The State and private producers have established professional associations, for example: the Association of Romanian Foresters, the Association of Romanian Furniture Producers, the Technical Association of Romanian Pulp and Paper Industries and the Association of Romanian Wood Panels Industries.

Research and development activities relating to entrepreneurship and the market economy are carried out by some central organizations such as: the Institute for Forest Research and Management, the National Institute of Wood and the Research and the Design Institute for Pulp and Paper.

3.4 The effects of the transition process

During the period of adoption of market economy principles in Romania, which started in 1990, the wood sector was owned wholly by the State. It was characterized by a small number of large companies, some of them having a complex structure including total integration. During the transition process, large companies were restructured to make them more attractive for privatization. During the last decade, 6,776 small and medium-sized private companies were established mainly for the production of sawnwood, building materials and furniture. As a result the configuration of this sector is quite different now than it was in 1990 (table 3.4.1).

The privatization process of the wood sector is nearly completed. From a total of 7,038 companies, 7,018 are privatized and another 20 State companies are in the process of privatization. The private companies account for some 96% of the production of the whole sector. From this point of view the wood industry as a whole is situated much above average of other industrial sectors. For all industrial sectors combined, the share of private companies in 1999 was only 31.7%. The dispersed, small companies, using obsolete equipment, do not profitably manufacture sawnwood, joinery and furniture. Their products are manufactured with high consumption of raw materials and with reduced conversion efficiency. This negative effect of low processing efficiency is evident especially in the furniture industry.

At the end of 2000, in the woodworking industry there were 67,000 employees, 20,800 in the pulp and paper industry and 104,000 in the furniture industry. The gross average salaries recorded in December 2000 reflect the level of modernizing and managerial orientation in various sectors. Compared with the average gross monthly wage in all manufacturing, $148, the woodworking industry average was only $85, in the furniture industry, $103 and in the pulp industry, $188.

Investments in the woodworking industry during 1990 to 1999 totalled about $815 million (Ministry of Industry and Resources) which allowed manufacturing new products (MDF, solid-wood panels, laminated wood parquet). The 20 largest companies had the highest turnover (table 3.4.2).

In the next years the sector will be influenced by the start up of some large capacity companies by foreign investors. A 285,000 m^3/year MDF plant started in 2000. A particle board plant with a capacity of 240,000 m^3/year is due to start in 2001. A laminated board plant of 5 million m^2/year is also due to start in 2001. The FRATI company of Italy is investing in the company MDF Sebeõ A new plywood plant with a capacity of 12,000 m^3/year started in 2001. A veneer plant with a capacity of 12,000 m^3/year is scheduled for 2003 by an investment of Blomberger Holzindustrie in the company SC CILDRO – Drobeta Turnu Severin.

Packaging paper capacity of 150,000 tons/year started in 2000 by an investment of Rosman of France in the company SC AMBRO Suceava.

TABLE 3.4.1

Structure of companies in the Romanian wood industry, 1990 to 2000
(Number of companies)

Branch	1990	2000			
		Total	of which:		
			Large	Medium	Small
Wood industry	107	4,012	60	139	3,813
Furniture and other finished wood products	114	2,679	114	110	2,455
Pulp and paper	23	347	29	23	295
TOTAL	244	7,038	203	272	6,563

Source : Ministry of Industry and Resources, 2001.

TABLE 3.4.2

Concentration of companies within the wood industry in Romania, 1998

Activity	Number of companies	Average number of employees	% of the total turnover		% of total employees	
			First 5	First 20	First 5	First 20
Woodworking industry (without furniture production)	4,331	91,874	9.3	22.6	13.3	35.2
Pulp, paper and paperboard	387	21,471	35.7	61.0	41.5	75.9
Furniture and other activities	2,828	124,428	10.7	28.8	11.4	31.0

Source: Statistical Yearbook of Romania, 1999.

3.5 Forest products ind ustry – production and consumption

The changes during the 1990s have left the wood industry with processing capacities requiring annual harvests of 18 to 20 million m^3. However, removals are only 14 to 15 million m^3/year as decided by the National Forest Administration in accordance with real possibilities for natural growth and regeneration of forest cover. This deficit began a raw materials crisis. The situation was worsened by changes in the market of wood products and limitations imposed during 1990-1997 for the export of sawnwood and logs, liberalization of wood prices, legislation of public auctions and negotiations and last but not least the privatization process.

After the first transition stage (1990 to 1994), when production fell throughout the wood industry, production of most wood products improved to meet new market demand (table 3.5.1). Modernizing of companies after 1994 enabled the furniture industry to increase production in 2000 by 33% compared with 1990.

Obsolete technology hindered some companies from emerging from the deep crisis. For example, production in 2000 was below the level of 1990 for wood-based panels and pulp and paper (graph 3.5.1).

A favourable situation for the wood industry was created by liberalization of exports in 1998. While the limitation of removals, in 2000 the production of sawnwood increased in 2000 by 19% over 1990 (graph 3.5.2).

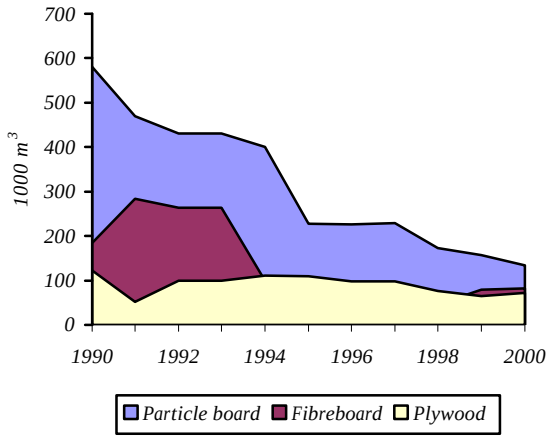
The changes in the production volume of various wood products are reflected in changes in the structure of the sector (table 3.5.2).

Although the economic conditions of the transition period do not permit us to know the real domestic demand, there is no relation between the industry structure and the domestic market demand. Production is predominantly influenced by foreign market demand. Domestic consumption remains low, even in the case of sawnwood, which registered significant increases for increased furniture production, solid-wood panels and building joinery (graph 3.5.3).

Modernization and the development of new production capacities, which is now in progress, shall close in part the technical gap. The interest of foreign investors in the development of production of wood-based boards and pulp and paper assures positive changes in the sector in the next two to four years. The importance of the forest products sector in the share of all Romanian industries will have a positive impact on domestic consumption and the import/export balance.

GRAPH 3.5.1

Wood-based panels production in Romania, 1990-2000



Sources: Statistic Yearbook of Romania, 1994, 1999 and Statistical Bulletins 1/2000, 1/2001.

TABLE 3.5.1

Wood products production in Romania, 1990 to 2000

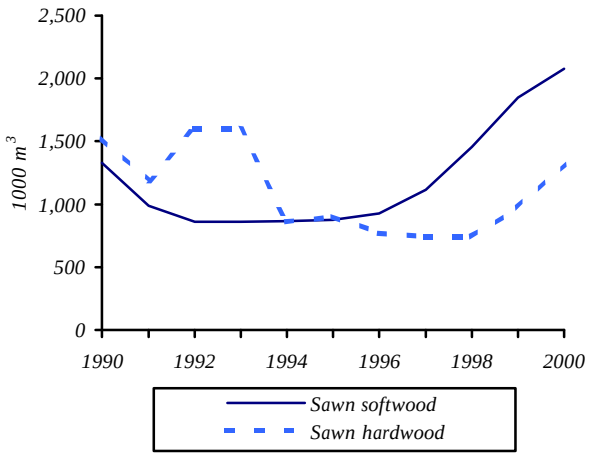
Products	1990	1994	1998	1999	2000	% Change 1990 to 2000	% Change 1999 to2000
Sawnwood[1], 1,000 m^3	2,853	1,727	2,200	2,818	3,396	+ 19.0	+ 20.5
Particle board, 1,000 m^3	581	240	173	157	133	- 77.1	- 15.3
Fibreboard, 1,000 m^3	184	102	45	79	82	-55.4	+ 3.8
Plywood, 1,000 m^3	123	97	76	65	72	- 41.5	+ 10.8
Pulp , 1,000 m.t	667	221	217	201	293	- 56.1	+ 45.8
Paper, 1,000 m.t	547	288	301	289	340	- 37.8	+ 17.6
Furniture, million $	456	450	515	572	608	+ 33.3	+ 6.3

1 For reference, sawnwood production in 1985 was 4,638 (1,000 m^3) and in 1988 was 3,891 (1,000 m^3).

Sources : Romanian Statistical Yearbook, 1999 and Statistical Bulletins, 1/2000 and 1/2001.

GRAPH 3.5.2

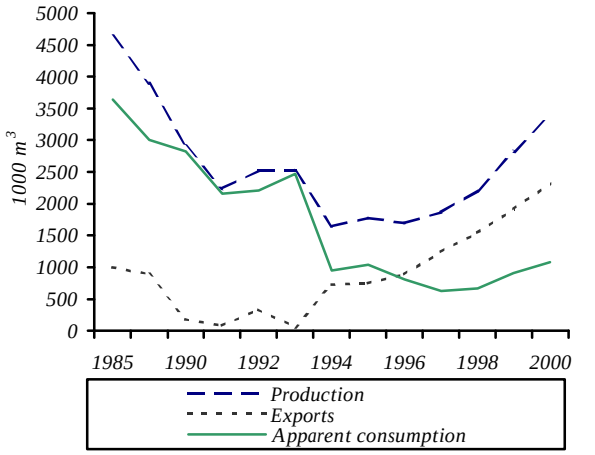
Sawnwood production in Romania, 1990-2000



Sources: Statistic Yearbook of Romania, 1994, 1999 and Statistical Bulletins 1/2000, 1/2001.

GRAPH 3.5.3

Sawnwood consumption, production and trade in Romania, 1985 -2000



Sources: Statistic Yearbook of Romania, 1994, 1999 and Statistical Bulletins 1/2000, 1/2001.

TABLE 3.5.2

Changes in forest industry structure in Romania, 1989 to 2000
(Based on production)

	1989 %	2000 %
Wood working industry	46	54
of which:		
wood-based panels	26	7
Pulp and paper industry	28	12
Furniture industry	26	34
Total forest products industry	100	100

Source: Ministry of Industry and Resources, 2001.

3.6 Trade of wood and wood products

The development of the Romanian wood industry is directly related to external market demand due to low domestic consumption. Increased imports of products filled the gaps in the assortments offered by Romanian producers. At the beginning of the 1990s, when the production and exports collapsed, the wood industry directed its activities towards maintaining traditional markets and also the challenging new markets. The result was that in 2000, the total value of exports of wood products was 75.4% higher than in 1990. In 2000, the value of forest product production represented 4.4% of Romania's total industrial production. The value of wood product exports, $1.0 billion in 2000, is 9.9% of the total exports of Romania.

The growth was different by type of product, almost 5 times for sawnwood, 1.5 times for wood-based panels, 1.2 times for furniture and 10 times for pulp (table 3.6.1). The liberalization of foreign trade in 1997 allowed the export of roundwood. A decrease in exports, by 9.5% from 1990 to 2000, has been recorded for paper and paperboard. In the case of wood-based panels the particle board export has been reduced in volume by 21.4% over the same period.

In 2000, Romania exported 80.7% of the sawnwood production, 50% of wood-based panels production (of which 81.4% was MDF), 33.8% of paper and paperboard production and 10.8% of pulp production. Exports of sawlogs and veneer logs represented 6.8% of softwood and 10.9% of hardwood removals. In 2000 the imports had significant influence in the apparent consumption for these products: particle board (62.3%), plywood (37.4%), fibreboard (63.6%), paper and paperboard (39.5%) (of which, printing paper represented 47.7%) and packaging paper (38.5%). The imports of furniture represented 16.8% of its apparent consumption.

The import/export balance in 2000 for the whole wood industry was positive, $635.2 million. This figure includes also secondary-processed wood and paper products. However, a negative balance was recorded for wood-based panels (-$28.9 million), paper and paperboard (-$72.0 million, of which $53.8 million for graphic paper) and secondary paper products (-$120.2 million).

In general, Romanian imports of wood products are from European countries, but exports have a broad range of distribution. In 2000 the EU countries were the main destinations for 66.7% of veneer exports, 54.6% of plywood exports, 56% of fibreboard exports (but 99% of MDF exports), 94% of particle board exports, 81.8% of furniture exports and 41.5% of pulp exports. Meanwhile EU countries imported only 16.3% of sawn softwood

TABLE 3.6.1

Exports and imports of wood products in Romania, 1990, 1999 and 2000

Products	Exports			% Change		Imports			% Change	
	1990	1999	2000	1990 to 2000	1999 to 2000	1990	1999	2000	1990 to 2000	1999 to 2000
Sawnwood[1] 1,000 m^3	430	1,917	2,322	+440	+ 21	132	5	8	- 94	+ 2
Wood-based panels (total) 1,000 m^3	105	99	153	+ 46	+ 55	-	207	226	-	+ 9
Plywood 1,000 m^3	39	41	55	+ 41	+ 34	-	8	10	-	+ 23
Particle board 1,000 m^3	27	18	21	- 21	+ 17	-	156	185	-	+ 19
Fibreboard 1,000 m^3	36	35	70	+ 94	+ 100	-	16	21	-	+31
Wood pulp 1,000 m.t	3	10	31	+ 933	+ 210	71	2	4	- 94	+ 100
Paper and paperboard[2] 1,000 m.t	127	83	115	- 10	+ 39	40	113	147	+ 268	+ 30
Furniture Million $	356	369	410	+ 15	+ 11	-	25	40	-	+ 60

1 For reference, sawnwood exports in 1985 were just over 1 million m^3 and imports were banned.

2 For reference, paper and paperboard exports in 1985 were 177,400 metric tons and imports, the only product imported until 1990, were 43,400 metric tons.

Source: Statistic Yearbook of Romania, 1994-1999 and Statistical Bulletins 1/2000, 1/2001.

exports, 23.1% of sawn hardwood exports and 2.1% of newsprint paper.

3.6.1 Sawlogs and veneer logs

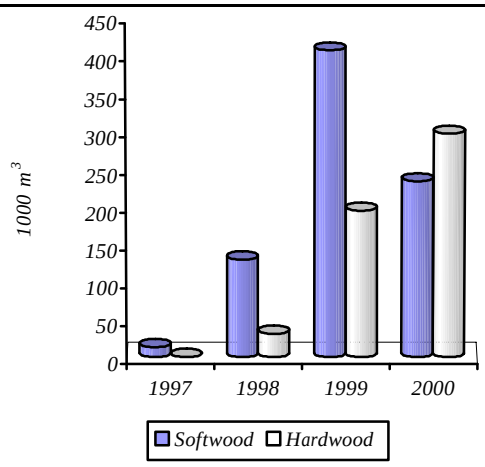
The market for sawlogs and veneer logs has grown quickly because the market for these products was only liberalized in 1997 (graph 3.6.1). Although export volumes of logs increased steeply, in the next couple of years they are envisaged to remain at the level of 2000. Most softwood logs were exported to Europe in 2000. Approximately 72% of the softwood export volume, 169,000 m^3, went to Austria and 15.6%, 36,400 m^3, went to Hungary.

For hardwood logs in 2000, Bulgaria was the main importer with 90,000 m^3, of which 77,000 m^3 of poplar logs. Turkey was second with 42.4% of beech log exports or 44,000 m^3, followed by China with 21% or 22,000 m^3. For hardwood log exports, Bulgaria ranks first with 25.9%, followed by Turkey with 17.8%, Italy with 9.8%, China with 7.4%, Austria with 6.3% and Hungary with 4.7%. Export volumes for logs are envisaged to remain constant.

The increasing development of the sawnwood industry allows greater utilization of roundwood, even at prices comparable with export markets. The prominent sawnwood producers are present at auctions of standing timber, which since 1997 are open to foreign buyers. Sawmills usually have associated companies for wood

GRAPH 3.6.1

Export of industrial roundwood in Romania, 1997-2000



Sources: Statistic Yearbook of Romania, 1999 and Ministry of Industry and Resources, 2001.

harvesting.

3.6.2 Sawnwood

It is estimated that in 2000 Romania exported 2.3 million m³ sawnwood. Fast growth of sawnwood exports by 24.2% in 1999 compared with 1998, and by 12.1% in 2000 compared with 1999, means this product takes second place after furniture in the value of export of wood products. The sawnwood exporters tackled many markets in 2000. Sawn softwood was exported to 52 countries and the sawn hardwood to 62 countries. Hungary was an important market for sawn softwoods (fir and spruce) with 15.3% of the total. North African and Near and Middle East countries took 60.5% of the total exports (table 3.6.2).

In the case of sawn hardwoods the main markets are in the same region of Near and Middle East countries (table 3.6.3). Beech was 85% of total hardwood exports, mainly to Egypt (34.1%), China (20.7%) and the Syrian Arab Republic (12.6%). China is an attractive market for both beech logs and sawnwood, taking large volumes at good prices. Poplar makes up 4% of total hardwood exports and is exported mainly to Italy (70%), France (7.6%), Germany (4.2%), Hungary (4.9%) and Israel (6.3%).

The export of large volumes of sawnwood generated serious problems for domestic furniture and joinery producers. Nevertheless, imports remained insignificant

TABLE 3.6.2

Exports of Romanian sawn softwoods, 2000

	Volume (1,000 m³)	%
Hungary	256	15.3
Saudi Arabia	206	12.3
Tunisia	127	7.6
Syrian Arab Republic	111	6.6
Morocco	107	6.4
Greece	107	6.4
Lebanon	79	4.7
Other	993	40.7
TOTAL	1,677	100.0

Source: Ministry of Industry and Resources, 2001.

TABLE 3.6.3

Exports of Romanian sawn hardwoods, 2000

	Volume (1,000 m³)	%
Egypt	187	28.9
China	112	17.3
Italy	72	11.1
Syrian Arab Republic	68	10.5
Germany	34	5.3
Other	173	26.9
TOTAL	646	100.0

Source: Ministry of Industry and Resources, 2001.

TABLE 3.6.4

Wood products apparent consumption in Romania, 1996, 1999 and 2000
(1,000 m³)

Product (Unit)	1996	1999	2000	Change (%) from 1999 to 2000	Unit per 1,000 inhabitants, 2000
Sawn softwood (1,000 m³)	369	352	401.4	+14.0	17.9
Sawn hardwood (1,000 m³)	439	554	679.3	+22.6	30.3
Particle board (1,000 m³)	288	295	297	+0.7	13.2
Plywood (1,000 m³)	40	32	26.7	-16.6	1.2
Fibreboard (1,000 m³)	69	60	33	-45.0	1.5
Chemical wood pulp (1,000 m.t.)	191	136	180	+32.3	8.0
Paper and paperboard (1,000 m.t.)	390	318	372	+17.0	16.6
Graphic papers (1,000 m.t.)	184	87	149	+71.3	6.6
Sanitary and household papers (1,000 m.t.)	35	34	38	+11.8	1.7
Packaging materials (1,000 m.t.)	159	171	174	+1.8	7.8
Other paper and paperboard (1,000 m.t.)	13	26	12	-53.8	0.5
Furniture (million $)	-	178	238	+33.7	10.6

Source: National Institute of Wood, 2001.

and in 2000, per capita consumption was below the European average (table 3.6.4).

3.6.3 Wood-based panels

In 2000 the negative trade balance was 15.3% higher than in 1999. Total trade of wood-based panels, both imports and exports, increased in absolute volume. Plywood registered the most significant export volume within this category with 56% of total panel exports. Traditionally, there are three major importing countries taking 73.1% of Romanian plywood exports: Germany 29.5%, Egypt 26.2% and Italy 17.4%. Romania's main plywood supplier was the Russian Federation with 66.7% of total imports. Beginning in 2001, as a result of investments in this sector, a steady increase of exports is envisaged.

Owing to the dramatic shortage of domestic production during the 1990s, particle board was the main panel product imported. Imports have increased at a rate corresponding to the demand of the furniture industry: 106,000 m^3 in 1998, 156,000 m^3 in 1999 and 185,000 m^3 in 2000. The main particle board suppliers are the Central European Free Trade Association countries, with 74.1% of total imports (table 3.6.5). Particle board exports amounted to 21,000 m^3 in 2000 and were directed mainly to Germany (68.1%) and Italy (18.4%). Fibreboard capacity investments achieved and in progress will help balance the import/export ratio.

TABLE 3.6.5

Sources of particle board imports by Romania, 2000

	Volume 1,000 m^3	%
Czech Republic	56	30.4
Hungary	49	26.6
Slovakia	32	17.1
Italy	15	8.3
Germany	9	4.8
Other	24	12.8
TOTAL	185	100.0

Source : Ministry of Industry and Resources, 2001.

New MDF capacities of 285,000 m^3/year started up in 2000 and changed the export configuration. MDF climbed from 1,000 m^3 in 1999 to 31,000 m^3 in 2000 the main importer being Italy, with 98% of the total. In 2000, MDF was imported from Poland (51.5%), Germany (24.3%), Italy (9.3%) and Austria (7.7%).

Significant changes in the structure of wood-based boards trade are expected in 2001. When reaching operating capacity, there will be the possibility of exporting 200,000 m^3 of particle board/year, 200,000 m^3 of MDF/year and even a twofold increase in export volumes of plywood and veneer.

3.6.4 Pulp and paper

The developing trade of pulp, paper and paperboard is exemplified by low domestic production and by a per capita consumption of paper and paperboard products below the European average. With regard to pulp, the present production supplies with the reduced needs of the paper industry yielded a positive trade balance in the last few years. This balance was 3.3 times higher in 2000 than in 1999. The main importers of Romanian pulp were Italy with 10,520 metric tons (32.6%), followed by Yugoslavia with 5,800 metric tons (18%) and Turkey with 3,872 metric tons (12%). Romania imported 4,000 metric tons of woodpulp, mainly from Yugoslavia (35.6%), Germany (26.5%) and Slovakia (23.8%).

The volume of imports for paper and paperboard products was 3.3 times greater than the value of exports in 1999 and 2.5 times higher in 2000. In 2000 the value of paper and paperboard imports amounted to $119.8 million compared with the exports of $47.8 million. Most imports came from EU countries in 2000, representing 67% of total imports for paper and paperboard, 52% for graphic papers and 44% for packaging materials. However, imports of secondary paper products registered a deficit of $120 million in 2000. Romanian exports of paper and paperboard outside the EU countries account for only 39% of the total exports.

In 2001, some changes have been forecast in the foreign trade balance for pulp and paper. New capacities will contribute to the improvement of domestic consumption, especially for highly processed paper and paperboard products.

3.6.5 Market of certified forest products

In compliance with an FAO project on the implementation of strategies for Romanian forestry development, there are activities planned for forest product certification. The National Forest Administration is prepared to undergo the certification of 32,000 hectares of forests in the northern region of the country in 2001 in accordance with the norms of Forest Stewardship Council (FSC). Currently, there is no domestic market for certified forest products.

3.7 Integration into the EU

In February 2001 the preparations for the integration of Romania into the European Union advanced when the Government established a programme for the preparation and organization of negotiations with the

European bodies. In comparison with other branches of the Romanian economy, the forestry and wood industry sector is more prepared for the assimilation of European standards and legislation in this field. For example, in November 2000 the criteria for measurement, classification and marking of wood (European Commission certification in accordance with Directive 68/89 EEC) became compulsory. Programmes have been approved for the development of national regulations for the application of Directive 89/106 EEC regarding building woodwork. Also more than 70% of the European standards regarding wood and wood products have been adopted and harmonized.

National regulations are being drawn up for the application of pan-European guidelines at the operational unit level for sustainable forest management. The largest companies are currently implementing quality management systems and product testing methods. However, the numerous small and medium-sized enterprises are not as yet involved in quality control and testing programmes.

3.8 Prospects for the wood industry

In the decade 1990 to 2000 the forest industry underwent transformations in the ownership and organization of enterprises. Despite the dramatic decrease in the volume of manufacturing and exports, it demonstrated successfully its viability as an industry with a steady contribution in the foreign trade balance.

The wood industry is viable, with important development prospects for the following reasons:

- *The institutional and legislative frameworks are established for sustainable forest management ensuring an increase of forest cover in order to provide a base of raw materials.*
- *Manufacturing capacities have been modernized and new capacity installed to bridge the technical gap with more developed countries.*
- *Important steps have been taken in structural reforms, for example 95% of industrial units have been privatized .*
- *European Community regulations have been adopted, displaying a concern for the assimilation of the acquis communautaire. However, there are still differences in the technology and management of various companies and sectors. In the unification of enterprise perceptions about the market economy concept, an important role is played by professional trade associations in the quality of products.*

Analysing the trends of domestic and foreign markets; the Ministry of Industry and Resources has drawn up a strategy for medium- and long-term development of the wood industry through 2010. The strategy promotes the development by Romanian and foreign investors in the following sectors:

- *production of furniture and furniture components;*
- *production of semi-finished and finished wood products;*
- *production of particle and fibreboards, and composites panel products;*
- *production of panels surfaced with veneer substitutes (such as melamine and plastic);*
- *production of prefabricated wood components for housing and other constructions;*
- *diversification of assortments in the pulp and paper industry.*

Development of these sub-sectors depends on an annual average investment of about $125 million.