WOOD BASED INDUSTRY IN FR YUGOSLAVIA

Wood based industry of FR Yugoslavia consists of 3869 companies (officially registered) of which 1675 are in primary processing and 2194 in final processing of wood. The number of 1321 companies, of the total of 1675, is situated in Serbia, and 354 in Monte Negro. Concerning the started process of privatization of public companies and growing number of private companies , the participation of companies privately owned , in the total number of companies in primary processing of wood is dominant , and it is 95,8% or 1605 companies.

Most of the private companies belongs in the category of small companies. According to disposed data of the total number of the private companies in primary processing of wood in FR Yugoslavia, 96% belongs to the group of small companies, 2,9% to the group of middle , and 1,1% to the group of large companies. The foundation of big number of small companies in primary processing wood is the result , among other , of very expensive capital on one side and the possibility of disposal of certain products on the foreign market on the other side. For that , the main engagement of the most small companies is the production of sawnwood, which is very demanded on the domestic market (especially the sawn softwood), but as well a great possibility for export on the foreign markets. Besides the companies, in which is the domestic capital dominant , the mixed companies are found in the recent years (especially in the production of wood boards) In the 1999 there were 14 such companies in Serbia , and in Monte Negro only 2.

Small companies are not important only for their number , but for their achieved production. In 1999 , 51,35% has presented the value of production in the small companies , 20,7% of middle, and 27,95% of large companies, of total value of achieved production in primary processing of wood in Yugoslavia.

EMPLOYMENT

There are 765.000 employees in Yugoslav industries, of which there were 37100 employed in wood based industry , what represented 4,9% . The biggest number of workers are employed in final processing of wood , 24.300 , while there were 12.800 of them working in the primary processing of wood. The data are referring to the end of 1999.

Most of workers in the wood based industry of FR Yugoslavia are employed in large companies. In the primary processing of wood, in large companies , were employed 44,79%, in middle 24,55%, and in small 27,66% . The number of employees in small finally processing wood companies was 18,72%.

PRODUCTION AND FOREIGN - TRADE.

The wood based industry is characterized by the production of large number of different products. The most important , after all, is the production of sawnwood , veneer , wood based boards , (plywood , particle board, fiber board) , parquet , furniture, carpentry and wooden houses.

The period from 1991 to 2000 is distinctive for FR Yugoslavia by great political and economical inside changes , but also in its surrounding . All these changes , with all their contradictions , have influenced the wood based industry in the great measure . As the result, the production of most listed products of wood based industry , in the observed period, radically declined comparing to 1990.

The hardwood sawnwood

The hardwood sawnwood represents one of the most important products of wood based industry in FR Yugoslavia. , as for the number of companies that are engaged in the production of this product , as well for the value of achieved export.

Table 1. Production and consumption of hardwood s awnwood in FR Yugoslavia.

	Year					
	1991	1992	1996	1997	1998	1999
	m^3					
Apparent consumption	230.111	178.150	143.840	135.662	135.377	105,200
Export	155.285	116.472	130.999	206.130	230.047	182.468
Import	1.047	347	50.562	32.017	654	17.635
Production	384.349	294.275	224.277	309.775	364.770	270.033

Beech represents the most important wood species in the production of hardwood sawnwood of FR Yugoslavia , and it takes 70% of the total production. The biggest participation of beech in the total production, in amount of 79,1% , was achieved in 1997. The oak sawnwood participates with 8,3%, poplar with 11,4%. Of all the other wood species , by the amount of the achieved production, the distinguishing one is ash , whose average participation in the total production of hardwood sawnwood , for the observed period, is 2,7%. Although , statistically not recorded , the production of so called “precious” hardwood sawnwood and of fruit tree (walnut , cherry ….), is also important , for their high prices , that can be achieved by the export of these sawnwood on the European Union market , and before all to Italy.
Concerning the sawmills that are engaged in the production of hardwood sawnwood in Yugoslavia, the most of them belong to the group of yearly production of 100-500 m3 and 3000-5000 m3.
Very small number of sawmills have the production of 5000-8000 m3 and of 8000-10000 m3 , and only one produces over 10000 m3.

The foreign-trade exchange

Beech represents the dominant wood species in the export of hardwood sawnwood of FR Yugoslavia. In the export structure of hardwood sawnwood , in the year 2000, the beech sawnwood participated with 78,2% by the quantity and 83,2% by value.

Table 2. The export of Yugoslav beech sawnwood.

	1991		1997		1999		2000	
	m^3	1000 $	m^3	1000 $	m^3	1000 $	m^3	1000 $
Sawnwood beech	130.581	39.172	172.404	44.397	147.377	36.066	181.897	40.332
Sawnwood hardwood	155.339	45.594	206.130	53.286	182.466	43.547	240.344	48.469
(%)	84.1	85,9	83,6	83,3	80,8	82,8	75,7	83,2

The most important export markets for beech sawnwood are Italy, Egypt, Greece , Cyprus , China and Israel. Italy represents the most important market for the disposal of Yugoslav beech sawnwood . In 1998 , the 49.368 of this product was exported to this market , what represents the maximum for the last ten years. In 1999 , the beech sawnwood export to this market has declined for 10,6% (by quantity). The main reasons for this decline were presented by NATO aggression on FR Yugoslavia. However , in the year 2000 , the beech sawnwood export to Italy has increased by 11,33% in quantity and 8,75% by value.

Table 3. The most important markets for beech sawnwood of FR Yugoslavia.

Country	1991		1998		1999		2000	
	m^3	1000 $	m^3	1000 $	m^3	1000 $	m^3	1000$
Italy	48.861	12543	49.368	13.612	44.138	12.155	49.139	13.218
Egypt	66.557	21.524	47.218	11.045	24.803	5.858	13.942	3.102
Cyprus	-	-	23.767	6.305	7.311	2.218	10.829	3.203
Greece	3.363	906	14.274	3.033	7.997	1.829	15.249	2.916
Germany	4.081	1.171	7.724	2.436	-	-	-	-
Israel	3.634	1.413	4.964	1.438	-	-	-	-
China	-	-	1.514	454	4.094	2.356	-	-
Slovenia	-	-	5.474	1.431	-	-	-	-
Other countries	4.085	1.615	30.620	6.668	59.034	11.650	92.738	17.893
Total	130.581	39.172	184.923	46.422	147.377	36.066	181.897	40.332

The most important elements that are exported to Italian market are steamed edged long sawnwood and elements. Edged sawnwood has been exported in length from 2,1m on, width 12 cm on, and thickness of 50 mm. According to the quality classes , to this market the sawnwood of the class A was mostly exported, and in small quantities of class B. In the recent years the Italian market became very demanding and strict meaning the quality, for the big offer and mutual competition of Yugoslav exporters , but also from the other countries of Former Yugoslavia , an before all from Bosnia and Croatia.

The beech elements have been exported mostly in following dimensions : 60 x 60 mm, 70x 70 mm, 80 x 80 mm, and 90 x 90 mm and length 460 and 760 mm (in pairs front and back legs for the chair) , and also in length from 1.000 to 1.200 mm. By the conducted researches at the leading Yugoslav exporters , about 90% of their export to the Italian market is represented by the export of long edged sawnwood and elements.
The prices of long edged sawnwood (2,1m and more) , thickness 50 mm, kiln dried , reached the level of 1000 to 1100 DEM/m3 on the parity EXW , on the beginning of 2001. Comparing to the third quarter of 2000 , the prices are averagely lower by 20%. Most of the exporters succeeded to reach the mentioned prices. However , some exporters from FR Yugoslavia have exported the beech sawnwood under the mentioned prices , making that way disloyal competition to the other exporters, but by this achieved export, they imported the deficient and other attractive goods for the FRY market , by whose often unreal prices , they covered the loss made by the export of sawnwood, and achieving , besides everything, the very high profit.
For the very expressed competition of beech steamed edged sawnwood from Bosnia, Romania, and Bulgaria , as for the mutual competition of Yugoslav exporters , the prices of this wood element on the Italian market were not attractive for Yugoslav exporters , and for that the export of this wood element was symbolic.
The great problem in the export of beech sawnwood on the Italian market is presented by the frequent complaints of Italian buyers , because the greatest part of sawnwood is exported in raw condition (20-25% of humidity) , what causes the appearances of mistakes. The second so important problem are the transportation costs. The transport of sawnwood to Italy is mostly made by trucks , but for the small number of Yugoslav truckers who fulfill the strict regulations of European Union , the transport is carried by foreign truckers (from Hungary, Macedonia, and Slovenia). The average prices of transportation and insurance costs of the goods were about 150.000 LIT/m3.
The important part of long beech sawnwood that is exported to Italy , is being reexported to the Far East , and before all to China, . The reexport of Yugoslav sawnwood was very expressed during the 1999 and the first half of 2000.
Egypt represented the third export market, by the importance , for Yugoslav beech sawnwood. In the year 2000 to this market were exported 13.924 m3 , whose value was $3,1 million . Comparing it to the previous year , the export to this market is lower by half. In the period before the introduction of economic sanctions to FR Yugoslavia, Egypt represented the number one market for Yugoslav beech sawnwood. However, during the period of economic sanctions and difficult export possibilities to this market , the opportunity was used by the exporters from Romania , which are ruling the greatest part of this market , so that about 95% of Egyptian consumption of beech sawnwood comes from Romania. What were Serbia and Monte Negro for Egyptian market in 1990 and in 1991 , Romania is today. The second great reason for the decline of export to this market is represented by the lack of sawnwood , which is being exported to over 50 countries, for the great number of the small exporters. The crisis which came in the last quarter of 2000 and the disturbance on the world sawnwood market , have influenced many exporters from former Yugoslavia to reoriented their export to the new markets, what additionally intensified the competition to Yugoslav exporters. As the result of all this , the price of average shipment of beech sawnwood has declined under the $150 /m3 (CIF Alexandria) , on the beginning of 2001. Comparing to the price of average shipment that has been exported from FRY in 1990 , and was $330 /m3 , the decline of the price in 2001 is more then drastic. On the beginning of April 2001 , the prices of very short sawnwood (0,5 to 0,9 m) was 200DEM/m3, short sawnwood (1 – 1,7 m) 270 DEM/m3 and long sawnwood (1,8 m on) 350DEM/m3. The prices refer to thickness of 50 mm, width 10 cm and on the parity FCO Port Ploče (in Bosnia) , and to I/III class of quality.
The steamed sawnwood is only exported to Egypt , and in all standard sizes of thickness, width and length , except for the furniture elements, because they are to expensive for this market. In the meaning of class quality , the sawnwood of law quality is exported to this market (among the exporters known as Egyptian quality), which consists of the following ratio of quality classes : A= 20%, B=30%, C=50%. The average Egyptian shipment consists of 20% very short sawnwood, 40% short sawnwood, 20% long sawnwood and 20% very long sawnwood. The average participation of thickness in this structure is : 25 mm (15%), 38 mm (10%), 50 mm (50%) and 60 mm(25%).

By the amount of export of beech sawnwood from FRY, Greece holds the second place. To this market 15.249 m3 of beech sawnwood has been exported, in the total value of $2,92 million. The maximum Yugoslav beech sawnwood export to Greek market was achieved in 1997 , and its amount was 27.015 m3, with the value of $5,2 million. The export of beech sawnwood to the Greek market has increased suddenly , during the time and after partly suspension of economic sanctions towards FRY. In the period of 1992 , the export of beech sawnwood to Greece was about 827 m3 (in 1988) to max. 4.465 m3 in 1990 . In 1997 the FRY export to this market has increased for 6 times comparing to 1990 . By that, the level of Greek consumption of hardwood sawnwood has been kept on the same level for almost 4 years in the row (141.000 m3).

The increased export of beech sawnwood to Greece is the result of its reexport , mostly to the countries of North Africa and Middle East. In favor to this conclusion is the fact that FRY has declined its export to this region countries , comparing to the period before economic sanctions , because Greece exporters, during this period , have taken over in the great measure certain markets of this region, but with beech sawnwood from Yugoslavia.

In the 1998 Yugoslavia has exported the important quantity of beech sawnwood to Germany and Slovenia. The sudden export of beech sawnwood to those markets in 1997 and especially in 1998 is the result of its reexport to China, Hong Kong and Taiwan .

This conclusion is backed by the most often exported element structure – long steamed sawnwood from 2,10 m on.

Starting from 1997 , and following the European trend of beech sawnwood markets, Yugoslav exporters started its export to China. In 1998 they exported 1.514 m3 of beech sawnwood to China , in the total value of $454.000 . In 1998 its export to China has increased for almost 3 times , to the level of 4.093 m3. The trend of increased export to the Chines market has been kept , and in the first three quarters of 2000 there has been exported 4.030 m3 of beech sawnwood from FR Yugoslavia . The average prices of long edged sawnwood , thickness 50 mm on , kiln dried were about $900-950/ m3 on the parity C&F Hong Kong during the year 2000 . As the result of wind and snow storms , that have happened on the beginning of 2000 in France and Germany , where the damage was 1,6 m3 of logs , in the last quarter of this year the offer of beech sawnwood has suddenly increased from those counties to China, what influenced the decline of its prices to the level of $750 /m3 on the end of year 2000. As the result of this, the export of Yugoslav exporters to China has suddenly declined in the last quarter of year 2000 and in the first quarter of 2001. During the last quarter of year 2000 the representatives of few Chinese import companies came to Yugoslavia , and started the direct export of beech sawnwood to China , without mediators.

Besides Italy and Egypt , the traditional Yugoslav export market for the beech sawnwood is Israel. The greatest export to this market , in the period before the economic sanctions , Yugoslavia has achieved in 1991, in the amount of 3.634 m3. After their partly suspension , in 1996 , FR Yugoslavia exported to this market 5.041 m3. To the market of Israel the most exported is the steamed beech sawnwood in I/II quality. In the small quantities , the non steamed beech sawnwood is being exported, which is being purchased by the producers of natural furniture , and the most wonted thickness of non steamed sawnwood is 38 mm. During the 1999 , besides the sawnwood of A quality, there has been exported the sawnwood of lower quality , which has been purchased by the buyers from Palestinian territories . From the sawnwood elements , the most exported are very long edged sawnwood and long and short sawnwood.

Oak sawnwood.

Oak represents the second by the importance wood species in the export of hardwood sawnwood of Yugoslavia. With the exception of 1991 , during the other years of 1987-1991 period , the export of oak sawnwood has increased. The highest export in that period has been achieved in 1990 in the amount of 12.180 m3. After the suspension of economic sanctions , the export of this wood product has increased till 1999 , when, for the NATO aggression , has declined by 40,6% comparing to the 1998. The level of export in 1998 of 22.460 m3 represents the maximal Yugoslav export of oak sawnwood for last 15 years (table 4). In the total export of hardwood sawnwood, the oak participated , in that year, with 9,8% by the quantity and 10,7% by value.

Table 4. The export of oak sawnwood of FR Yugoslavia.

	1991		1997		1999		2000	
	m^3	1000 $	m^3	1000$	m^3	1000 $	m^3	1000 $
Sawnwood oak	7.421	2.316	16.853	4.731	13.346	3.095	14.877	3.393
Sawnwood hardwood	155.339	45.594	206.130	53.286	182.466	43.547	232.464	48.469
(%)	4,8	5,1	8,2	8,9	7,3	7,1	6,4	7,0

The most important export markets for Yugoslav oak sawnwood in year 2000 were the market of Greece , Italy, Cyprus and Macedonia . To the markets of these four countries Yugoslavia has exported 77,8% of its total oak sawnwood export in year 2000. Greece represented the most important market for FRY oak sawnwood , to where has been exported 5.413 m3 or 40,6% of the total oak export. Comparing to the period before economic sanctions , the export of oak to this market has increased for 4 times.

The increase of export to the Greek market after the partly suspension of economic sanctions is the result of many facts.

One of the facts was the civil war in Croatia , and almost complete cease of its oak sawnwood export to the market of Greece. In that period, the important quantities of oak logs from Slavonia have been "imported" to FR Yugoslavia, where they have been processed , and then the sawnwood has been exported to Greece and the other markets. The similar situation was during the civil war in Bosnia.

As the important fact that made Greek traders and producers choose to purchase the oak sawnwood in Serbia, was the high exchange rate of American Dollar towards the German Mark. In periods when the exchange rate was over 1,7 DEM , Greeks purchas ed the oak sawnwood in Serbia. In periods when the exchange rate was under the 1,70 DEM , the demand for sawnwood in Serbia has declined , and in that time the oak sawnwood has been purchased from the USA, and for the last years from Ukraine , Russia and Bulgaria. The influence of the exchange rate of the American Dollar toward the German Mark on the demand of the oak sawnwood from Serbia , is explained by that the value of deals between traders from Serbia and Greece is usually expressed in German Marks , while the dials with the partners from the other countries are made in American Dollars.

The oak sawnwood from FRY is being sold on Greek market mostly directly to the wholesale traders , and in smaller quantities over agents. In certain cases it has been sold directly to the furniture producers , but only to those that have their own kilns. This means that the oak sawnwood is being exported to Greece in the raw condition , what automaticly directs its export towards the wholesale traders , who kiln dry it, and then they sell it dry to the producers (and in the smaller quantity its being reexported to Egypt). Many producers in FR Yugoslavia do not have own kilns for drying . On the other side a great number of the foreign trade companies , that have a fast gaining profit wish , are not interested for kiln drying , although the price of kiln dried sawnwood is higher for 200-300 DEM/m3. The main reason for them not being interested for the drying of sawnwood is represented by the lack of capital for building their own kilns , but also the long time of capital engagement during the period of drying.

Besides that, the risk of drying mistake appearance (even the loss of 2-5%) , and the considerable means that have to be invested for the current mainten ance of kilns in addition , then them not being interested for kiln drying of sawnwood is obvious .

The export of oak from FR Yugoslavia on Greek market in 1998 , was expressed mostly (almost 80%) through the export of the elements and parquet elements , and partly (the rest of 20%) through very long edged sawnwood. Concerning the thickness , the dominant was the thickness of 25 mm , and most wonted width was 70 mm. The widths of 80-120 mm were also exported. The length of elements that have been exported to Greece were from 400-1350 mm. From this element structure the most interesting one were parquet elements. Different from all the other European nations , Greeks appreciate only the oak parquet, and for that oak parquet is mostly consumed , but in the last period the production of some exotic species has started. Besides that, it is important to mention , that by the Greek standard the parquet elements are considered the elements to 600 mm long , while by the Yugoslav standard length for parquet ele ments are 200-500 mm. growing by 50 mm. Besides that , the broad parquet is produced in Greece , from 52 mm on. Its production is restricted by its mounting . In Greece the parquet is mounted by nails , and not by gluing , as in most European countries.

The average price , that has been achieved by some Yugoslav exporters for parquet elements on the Greek market , during 1998 , was between 500-1.100 DEM/m3, on the parity DAF Greek border . Parquet elements in dimension of 25x70x400 mm and in I/III class had the price of 500 DEM/m3 on the parity DAF Greek border .
By the research that has been conducted at big exporter companies of oak sawnwood to the Greek marke , the average price of very long edged sawnwood was 750-800 DEM/m3 , in the length of 2 m on, and width 16 cm. on, thickness 25-60 mm , in I/III class of quality on the parity DAF Greek border. By the same research the prices of edged oak sawnwood from Russian Federation , Ukraine, and Bulgaria was by 15-20% lower then the price of the same goods from Yugoslavia.
Thanks to the better quality of oak from Serbia, comparing to oak from Russian Federation , Ukraine and Bulgaria, the export of very long edged sawnwood from Yugoslavia is still attractive , although significantly declined.
Italy presented the second important export market for t Yugoslav oak sawnwood in year 2000. To this market Yugoslavia has exported 4.246 m3 , whose value was $910.000. Italy represents a long time market for the oak sawnwood from Yugoslavia.
According to the element structure that is exported from Yugoslavia to Italy, the greatest part is represented by oak elements and the smaller by the long edged oak sawnwood. The prices that have been achieved by certain exporters from FR Yugoslavia for these two kind of elements were : (first half of 2000)

- for elements (A class , DAF Italian border)
-

38x80x450/500 mm	1.100.000 LIT/m3	80x80x800 mm	1.600.000 LIT/m3
50x50x450/500 mm	1.100.000 LIT/m3	100x100x800 mm	1.800.000 LIT/m3
38x100x700-1200 mm	1.350.000 LIT/m3		

For edged sawnwood , with thickness of 25-50 mm , length 1,8 m on, width 12 cm the highest price was 1.200.000 LIT/m3 . The price is on the parity DAF Italian border for I/III quality class (first quarter of 2000).
Other oak elements were almost not exported in the year 2000 , and most of all very long edged sawnwood , for the dominant exporters of this oak elements are the one from Croatia and Hungary.
As for the other markets , Yugoslav oak sawnwood is being exported to Great Britain, Slovenia and Holland , but in the smaller quantities . (2000)
The drastic decline of Yugoslav oak sawnwood export to the Egyptian market after 1995 is the result , in the greatest measure , of price decline on this market , and the growth of the competition from other countries (especially from Croatia and the USA).
By the research conducted among the small number of exporters in FRY , that have exported the oak sawnwood to Egypt, on the beginning of year 2000, the prices for some oak elements were :

- for edged sawnwood , class A , thickness 25 mm and width 8 cm on

very short (0,5 – 0,95 m)	$200/m3
short (1,0-1,75 m)	$280/m3
long (1,8 on)	$ 350/m3

- for very long edged sawnwood , thickness 25 mm in I/III quality class the price $380/m3
(all prices are on the parity C&F Alexandria)

Besides the decline of the prices, the growing competition of foreign exporters , before all from Croatia and the USA, also influenced the decline of oak sawnwood export from FR Yugoslavia.

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