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**DEVELOPMENT OF EXPORT POLICY OF FOREST
RESOURCES TRADE IN THE CONDITIONS OF
EUROPEAN INTEGRATION**

Myroslava Bublyk

Doctor of Economic Sciences,
Professor,
Professor of Management and
International Business Department,
Lviv Polytechnic National University,
Lviv, Ukraine
E-mail: my.bublyk@gmail.com
orcid.org/0000-0003-2403-0784

Natalia Petryshyn

Candidate of Economic Sciences,
Associate Professor,
Department of Foreign Economic and
Customs Activity,
Lviv Polytechnic National University,
Lviv, Ukraine
E-mail: natalya.petryshyn@gmail.com
orcid.org/0000-0003-4642-1778

Roman Medvid

Lviv Polytechnic National University,
Lviv, Ukraine
E-mail: rmedvsd@gmail.com
orcid.org/0000-0001-7081-5342

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Introduction. The problem of Ukraine's economic development in modern conditions is directly related to the implementation of the Ukraine–European Union Association Agreement, so the national economy is facing new opportunities and challenges, including the lack of effective mechanisms to restrict timber exports. The research aimed at assessing the effectiveness of the export bans to the EU.

Aim and tasks. The aim of the paper is to study the mechanisms of regulation of the timber market and their export to the EU.

Results. The impact of the imposed moratorium on the declared goals is analyzed in the paper. Analyzed statistics show no effect moratorium on the reduction of deforestation and halt exports of unprocessed timber. It is also impossible to make a clear conclusion about the positive impact of the moratorium on the supply of raw materials of domestic enterprises woodworking and furniture industries. However, within the structure of Ukrainian exports, the share of products of woodworking and furniture industries has increased. This was due to the reduction of Ukrainian export volumes against the background of increasing the share of exports of timber and wood products, as well as the resumption of sales of the furniture industry.

Conclusions. A study of the ban on raw wood showed that in general, the effect of the moratorium imposed is not obvious, since the number of woodworking enterprises has increased and the level of employment in these sectors has increased. Ukraine requires the adoption of a comprehensive targeted program that would combine measures to develop both the woodworking and forest industries. The national interest of Ukraine is the preservation and restoration of forests, and the moratorium introduced is an example of how partial, fragmentary unsystematic decisions are made. The practical significance of the results allows to analyze existing and find new alternative export balance, ensuring equal opportunities and non-discrimination between domestic and European Union market.

Keywords: national economy, the export policy, timber export, the export of wood logs, moratorium on wood-logs export, woodworking and furniture industries.

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РОЗВИТОК ЕКСПОРТНОЇ ПОЛІТИКИ ЩОДО ТОРГІВЛІ ЛІСОВИМИ РЕСУРСАМИ В УМОВАХ ЄВРОІНТЕГРАЦІЇ

Мирослава Бублик

Доктор економічних наук,
професор,
Національний університет
«Львівська політехніка»
Львів, Україна
E-mail: my.bublyk@gmail.com
orcid.org/0000-0003-2403-0784

Наталія Петришин

Кандидат економічних наук,
доцент,
Національний університет
«Львівська політехніка»
Львів, Україна
E-mail: natalya.petryshyn@gmail.com
orcid.org/0000-0003-4642-1778

Роман Медвідь

Національний університет
«Львівська політехніка»
Львів, Україна
E-mail: rmedvdsd@gmail.com
orcid.org/0000-0001-7081-5342

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Вступ. Проблема розвитку економіки України в сучасних умовах безпосередньо пов'язана з імплементацією Угоди про асоціацію, тому перед національною економікою відкриватимуться нові можливості та поставатимуть виклики, а зокрема створення механізмів обмеження експорту лісоматеріалів. Особливої актуальності набувають дослідження спрямовані на оцінюванні дієвості заборони експорту до ЄС.

Мета і завдання. Метою статті є вивчення механізмів регулювання ринку лісоматеріалів та їх експорту до Європейського союзу.

Результати. У статті проаналізовано вплив запровадженого мораторію відповідно до задекларованих цілей. Проаналізовані статистичні дані свідчать про відсутність впливу мораторію на зменшення обсягів вирубки лісів та зупинки експорту необробленої деревини. Також неможливо зробити однозначний висновок про позитивний вплив мораторію на забезпечення сировиною вітчизняних підприємств деревообробної та меблевої галузей. Проте у структурі українського експорту зросла частка продукції деревообробної та меблевої галузей, що було спричинено скороченням обсягів експорту України на фоні збільшення питомої ваги експорту деревини та виробів із неї, а також відновлення обсягу продажів меблевої галузі.

Висновки. Дослідження заборони необробленої деревини засвідчили, що в цілому, ефект від запровадженого мораторію не є очевидним, оскільки зросла кількість деревообробних підприємств та зріс рівень зайнятості в цих галузях. Україна потребує прийняття комплексної цільової програми, яка об'єднала би заходи з розвитку як деревообробної, так і лісової галузі. Національний інтерес України полягає у збереженні та відновленні лісів, а запроваджений мораторій – це приклад того, як приймаються часткові, фрагментарні безсистемні рішення. Практичну значимість результатів дозволяє проаналізувати існуючим і знайти новий альтернативний експортний баланс, забезпечивши рівні можливості і недискримінацію між внутрішнім ринком і ринком Європейського Союзу.

Ключові слова: національна економіка, експортна політика, експорт деревини, мораторій на експорт, деревообробна та меблева промисловість.

Introduction. The problem of researching the national timber export policy is directly related to the problems of international cooperation development as well as to the internal problems of forestry development and the whole national economy of Ukraine.

On the one hand, it has long been established that Ukraine's forest resources are being misused, which impairs the socio-economic and environmental status of both the regions and Ukraine as a whole [1-4]. An imperfect state policy on forestry development is combined with an inadequate level of accounting for forest resources [5-7].

There are also known facts of the implementation of uncontrolled felling, which cause significant damage to the forestry of Ukraine [8-10]. On the other hand, more than 4 years ago, the Verkhovna Rada of Ukraine of the last convocation amended the legislation to solve a number of problems of forestry development.

Since then, Ukraine has introduced a gradual ban on timber exports for 10 years. The moratorium was implemented in two phases: a partial ban, effective November 1, 2015, and complete, including pine timber, effective January 1, 2017. The moratorium had the primary objective of stopping uncontrolled deforestation with the continued sale of rough wood abroad [11; 12].

Therefore, it actualizes the study of the effectiveness of the implemented wood products export policy, and creates an urgent need to evaluate the effectiveness of the imposed ban on roundwood exports. In accordance with the declared goals of particular relevance, studies of the impact of the moratorium on the volume of timber harvesting, on the overall results of the activities of the woodworking and furniture sectors of the national economy, as well as on their export volumes, are of particular relevance.

Analysis recent research and publications. Prominent Ukrainian and foreign scientists devoted their problems to the development of forest resources of Ukraine and research of the amount of damage caused to them: O. Balatskyy [1], E.Boon [3], M. Bublyk [2, 4, 6], L.Hens [3], T. Koropetska [7], Yu. Matseliukh [10], L. Melnyk [3], O. Radziievska [10], etc.

The problems of Ukrainian export policy and development of export potential have been worked by scientists: M. Balavac [9], O.Boiko [13], D. Cooper [8], V.Dergachova [13], E. Gage [8], G. Pugh [9], S. Sen [5], M.-T. von Schickfus [5], etc.

In recent years, many attempts have been made in Ukraine to evaluate the results of the moratorium. Thus, in the study [14] E. Anhel and A. Butin evaluate the economic indicators of the introduced moratorium in order to reflect the current state and future prospects of development of the domestic producer. V. Galasyuk [15] substantiates regulatory and regulatory measures regarding the effectiveness of the moratorium on the export of untreated timber in the context of state forestry policy. In research [16] highlights the key shortcomings of functioning of the domestic forest market, among which the limited wood processing in Ukraine is most affected.

Conducted at the official level, studies of the impact of the ban on the export of roundwood by employees of the Financial and Economic Analysis Office in the Verkhovna Rada of Ukraine [17] indicate a significant impact of the ban on the export of timber to the timber industry of Ukraine, the level of investment and tax revenues. Researcher V Popkova [18], based on international experience, developed a set of concerted measures to develop the woodworking industry without adversely affecting Ukrainian forestry. The destructive impact of production on the environment for each type of economic activity has been thoroughly investigated in [19-21]. However, the question of the expediency of introducing a moratorium on timber exports has not been answered yet [22], since the problem of the impact on forests of the ban on timber exports itself involves a whole range of issues, including the need for environmental impact assessment, improvement of regional development, increased employment of the population, employment in Ukraine. international commitments and more. In paying tribute to the existing scientific developments on this issue [23, 24], it should be noted that the national interest of Ukraine lies in the conservation and restoration of forests, so for this purpose it is necessary to develop not partial, fragmented haphazard solutions, but to

provide sound recommendations in view of foreign experience and domestic features of the forest, that will provide a comprehensive strategy for the development of the forestry complex with the least negative impact on the socio-economic and environmental condition of Ukraine.

Aim and tasks. The purpose of the article is to carry out a comprehensive study of the impact of the moratorium on the volume of timber harvesting, the activities of the wood and furniture sector and their export volumes, to offer alternative solutions to problems in the Ukrainian forest sector.

Results. Among the European countries, Ukraine occupies the eighth place in the total

area of forests, with an area of forest cover of 15.73% of the total area of the country, which is almost three times lower than the average in Europe (see Fig. 1). However, the average stock of Ukrainian forests is approximately equal to the average stock of such forest countries as Finland, Turkey, Romania, Poland, etc. Such low level of forest cover of the territory of Ukraine is determined by the fact that in its composition 8 regions belong to the steppe zone, which occupies almost 40% of the total area of the country. At the same time, the low level of afforestation in the territory does not cause significant complications to manage an efficient forestry and to develop a timber industry complex in its other territory.

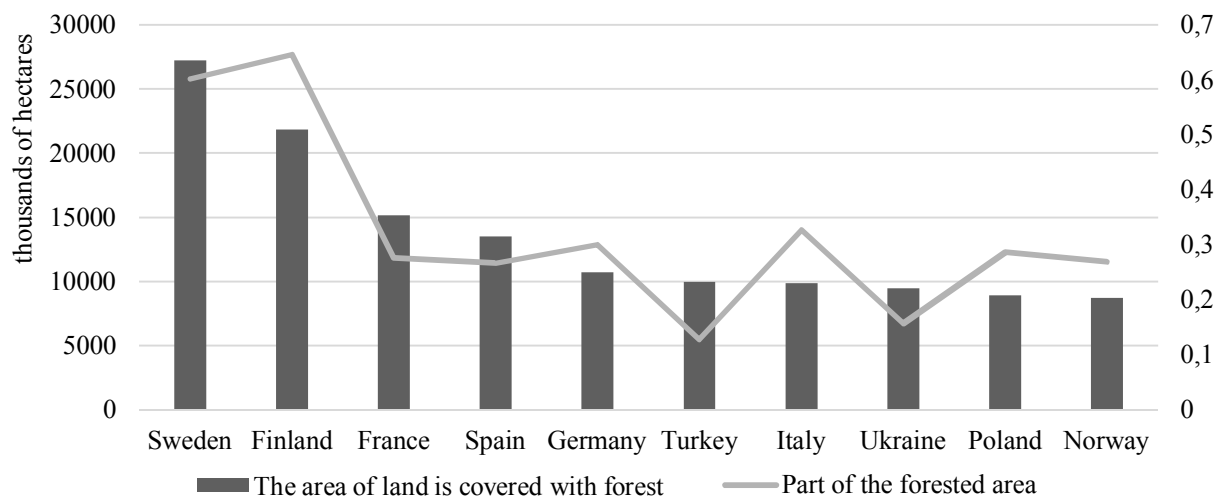


Fig. 1. Rating of European Countries by Area of Forests as of 2018

* Source: based on materials [25]

Ukraine's forests and forestry have some distinct features compared to forests of other European countries, in particular [25]:

- relatively low average forest cover;
- forests are located in different natural areas, so they have different composition and require different approaches to care, use of forest resources and their beneficial properties;
- forests are mainly of environmental importance;
- historically defined forest areas are assigned to permanent forest users;
- half of Ukraine's forests are artificially created.

Forest-covered areas have been shrinking in recent years. Ukraine faces the problem of environmental catastrophe. The area is being devastated, causing flooding, landslides, air

pollution and a number of other adverse effects. In addition, forests are massively cut down, and reproduction does not tend to grow, and vice versa - decreases every year, and annually increases the number of illegal logging, which, in the aggregate, causes considerable damage to the Ukrainian forestry.

In order to prevent the further development of such events, the Verkhovna Rada of Ukraine amended the Law of Ukraine "On Features of State Regulation of the Activities of Entities of Entrepreneurial Activities Related to the Implementation and Export of Wood Products" [11]. The legal norms mentioned in [12] refer to the export of timber and lumber only of the tree species of value to the state.

To properly and thoroughly understand the direction of the moratorium, it is first of all necessary to clearly delineate the terms mentioned in the document.

According to the above law, the basic terms have the following official interpretation:

- wood product - timber, which is extracted by splitting into pieces of fallen trees and logs (along or across) for further use or processing [26];

- roundwood – unmanufactured timber, with or without bark or sapwood, or planed or unedged timber, graded under 4403 Ukrainian classification of goods for foreign economic activity (UCG FEA) [27];

- fuelwood – wood in the form of logs, logs, shrubbery, branches, knots, etc .; wood chips or shavings; sawdust, chips, chips, wood chips and scrap, whether or not agglomerated, classified by code 4401 of the UCG FEA [27];

- sawn timber – timber production of certain sizes and quality, which has at least two planar-parallel, classified by code 4407 of the UCG FEA [26].

The main arguments for banning exports were [17]:

- inefficient use of forest;
- uncontrolled deforestation and raw material exports have become a serious environmental problem;

- in the structure of export of timber and products from it is dominated by roundwood, which is sold at low prices;

- the technological level of exported raw materials is extremely low;

- more than 6.5 thousand woodworking and furniture plants were partially suspended without raw materials.

The Verkhovna Rada of Ukraine resolved to address these problems by introducing a temporary moratorium on the export of rough wood, with 2 key goals [14; 17]: 1) budget fill through the development of deep-tech production in the wood and furniture industries and job creation; 2) environmental protection by reducing uncontrolled deforestation in the Precarpathian and Carpathian zones.

In 2017, the share of timber and timber products for export accounted for 2.8% of total exports. In the period from 2013 to 2018, the share of product group 44 in the UED FEA increased from 1.8% in 2013 to 3.1% in 2018. The reason for this increase in the share of the product group is explained by the fact that the total export from Ukraine fell by one third in annual terms, so the change in the volume of timber export and products amounted to 12.3%. The table. 1 shows the heading commodities 4403 (Roundwood) and 4401 (Fuelwood), which also indicates a decrease in timber exports.

Table 1. Dynamics of Ukrainian exports of certain types of timber during 2012-2018

Year	UCG FEA code			
	Roundwood 4403		Fuelwood 4401	
	Weight, tons	Cost, thousand US dollars	Weight, tons	Cost, thousand US dollars
2013	2 787 702	237 544	1 521 729	107 142
2014	2 879 231	212 672	1 757 272	112 543
2015	2 497 181	173 021	2 040 622	100 366
2016	1 732 230	106 094	2 040 011	101 694
2017	10 658	880	1 971 726	114 294
2018	2 866	200	1 974 597	152 042

* Source: based on materials [29]

Despite the effect of the moratorium, as shown by the dynamics of deliveries of untreated timber given in table 1, export of Ukrainian forest is carried out in Ukraine, albeit in much smaller volumes.

Timber exports and exports of wood products reached \$1.5 billion in 2018, which is 26.8% more than in 2016 (see Figure 2).

Compensation for losses caused by the moratorium on the export of untreated timber was offset by an increase in lumber sales (heading 4407 UKT FEA), which in 2016 amounted to \$ 394.3 million, and in 2018 it increased by more than 50% (\$ 597.5 million).

Since the moratorium, the share of sawmill industry in the export of timber and timber products has increased significantly, accounting for 32.6% of total exports in 2015, reaching 39% in 2018. Exports of heading 4408 (lining sheets, plywood, and other materials)

almost doubled, rising to \$ 99.1 million in 2015. And in 2018, it has grown to \$ 175 million. USA. The growth of exports of other commodity items was small compared to the total volume of exports.

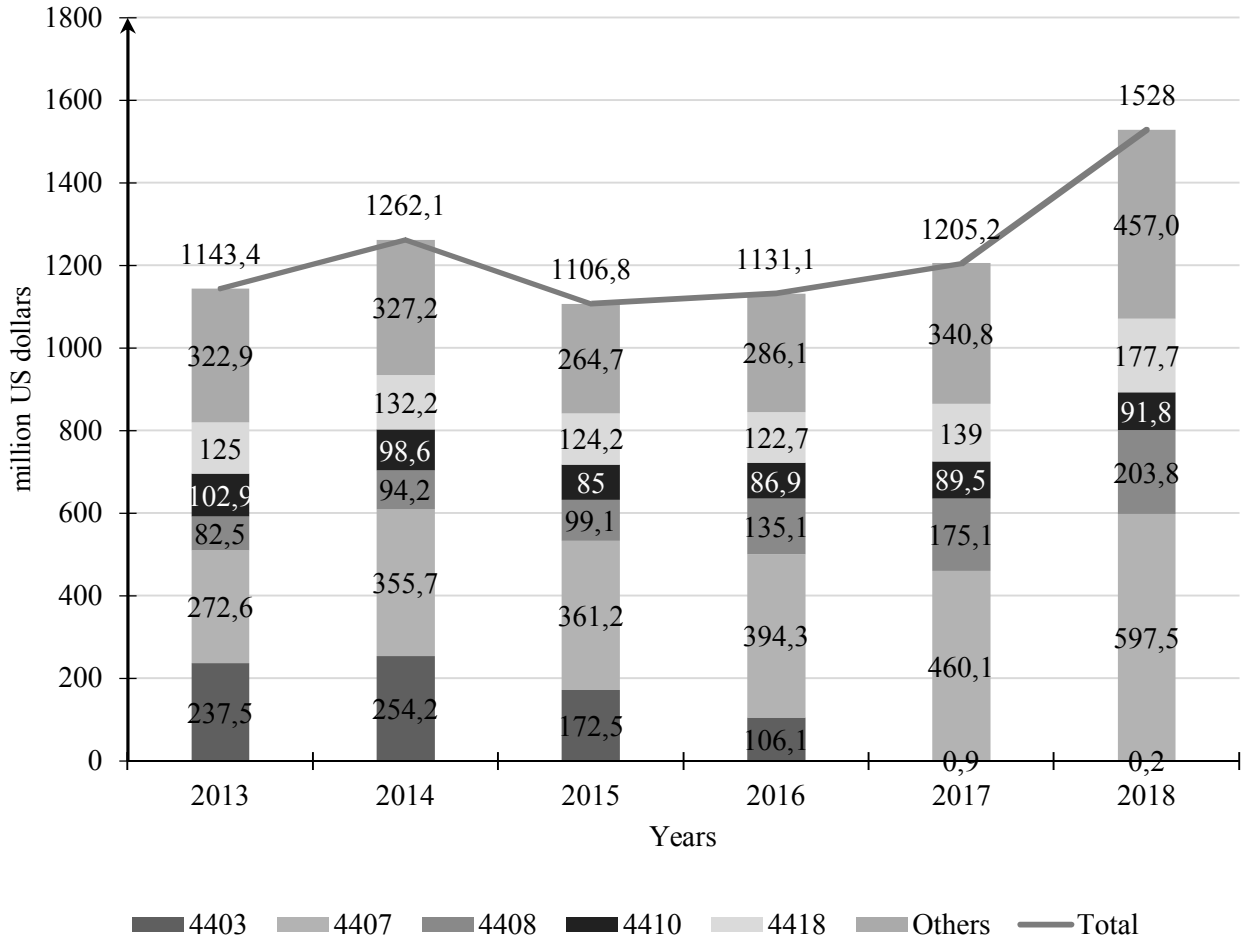


Fig. 2. Dynamics of Ukrainian exports of timber and wood products in 2013-2018

* Source: based on materials [29]

Thus, since the implementation of the moratorium, there was a restructuring of exports of timber and timber products from raw materials to primary and deep processing of wood, although the proportion of exported products deep processing remains low.

Particular attention is paid to the dynamics of timber exports, which is realized in the rough wood, based on the arguments of the moratorium. In Fig. 3 shows the annual change in average export prices from Ukraine of roundwood (4403), as well as fuelwood (4401). The key Ukrainian exporters of these products

[15; 18] are the enterprises of the State Forestry Committee, whose share is about 80% of the total rough exports. As a result, the average export price of roundwood fell by almost \$24: from \$85.21/tonne in 2013 to \$61.25/tonne in 2016. A similar situation was observed with prices for fuelwood: from \$70.41/tonne in 2013 to \$49.18/tonne in 2015, meaning the price dropped more than \$20. Indeed, timber prices have been falling on the European market over the last five years, but at a much lower pace than in Ukraine.

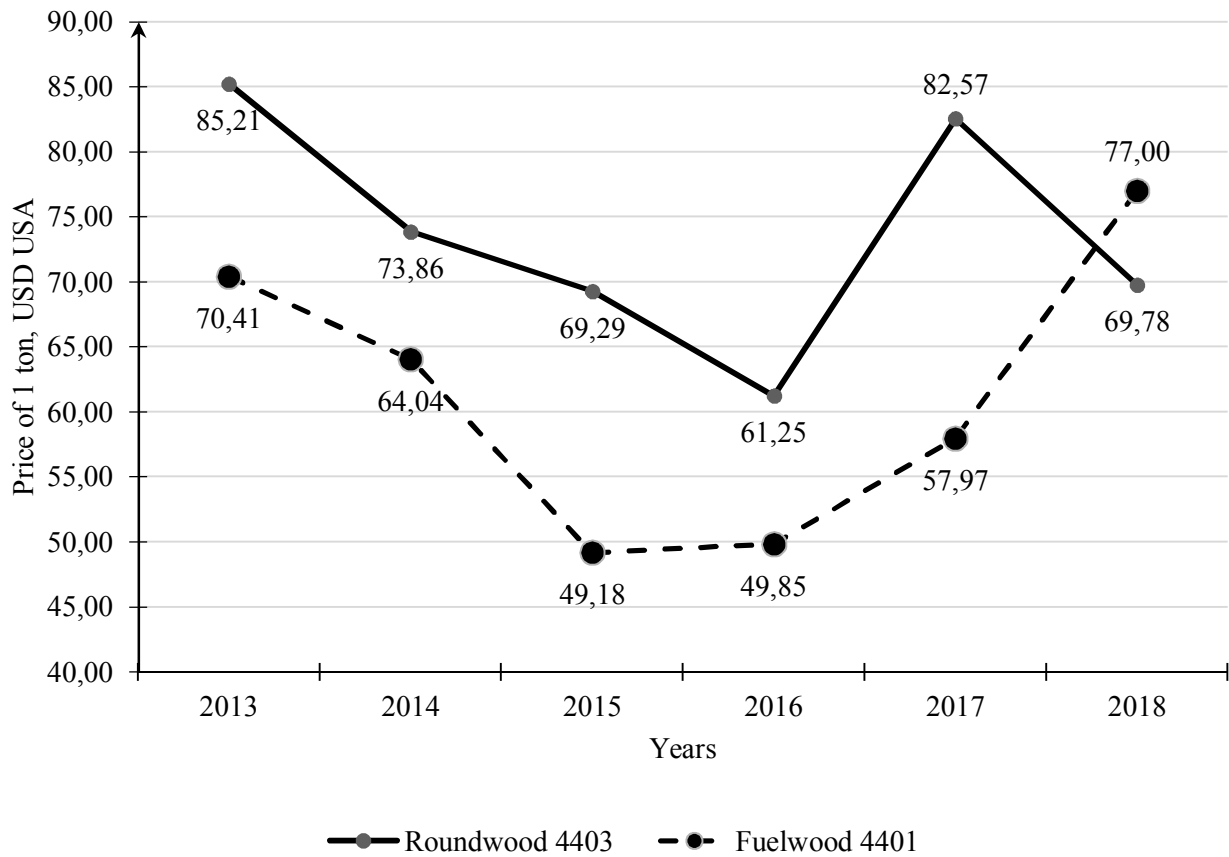


Fig. 3. Dynamics of annual average prices for fuelwood (4401) and roundwood (4403) exported from the territory of Ukraine in 2013-2018

* Source: based on materials [18; 29]

For example [18], in the RMK (Estonia) state forestry, the export price per cubic meter of coniferous sawdust decreased by €3 - €4, in the state-owned joint stock company LVM (Latvia) by €6 - €9, which is significantly less than in Ukraine (see Table 2). However, it should be noted that the average level of domestic prices in these countries is not the

highest among European countries, but much higher than in Ukraine. This situation testifies to [13; 18] the export of Ukrainian forest at minimal prices, and the reasons for this may be the unprofessional work of the State Forestry Agency, or deliberate lowering of prices in order to obtain personal corruption benefits.

Table 2. Comparison of domestic prices for coniferous logs (by FCA INCOTERMS-2010) in the Baltic countries with export prices in state-owned enterprises of Ukraine

Grade	Diameter, cm	Internal price for coniferous logs, €		
		LVM (Latvia)	RMK (Estonia)	State Forestry Agency (Ukraine)
1	28<	90	-	55-57
2-3	14-17,9	64	60	25-27
2-3	18-27,9	72	73	35-37
2-3	28<	74	73	45-57

Source: material-based [18]

In European countries, both private and state-owned enterprises [13; 19] aim to sell harvested timber as costly as possible, and they conduct thorough and ongoing marketing research, seeking to find the best buyers and form mutually beneficial and lasting

relationships with them. In practice, many European state-owned enterprises are prohibited from trading with intermediaries as this may lead to a decrease in the price received by the seller [16]. Unlike European counterparts, Ukrainian employees of the State Forestry

Agency promote that state-owned enterprises sell their products through recommended intermediaries.

Table 3 shows the following trends in the development of the wood and furniture

industries of Ukraine, caused by the moratorium on the export of timber: decreased the number of enterprises producing wood products, decreased the volume of deep-tech products in the furniture industry.

Table 3. Number of enterprises of wood and furniture industries in 2013-2017

Type of economic activity	2013	2014	2015	2016	2017
Manufacture of wood products, paper production and printing	3224	2949	3039	2588	2994
Sawmilling and planing production	1496	1392	1473	1273	1490
Manufacture of articles of wood, cork, straw and vegetable weaving materials	1728	1557	1566	1315	1504
Manufacture of furniture	1591	1401	1387	1161	1272

Source: material-based [30]

Since 2013, there has been an increase in the number of employees at woodworking enterprises (see Figure 4). In 2017, the number of employees in this field increased by 3 thousand (21%), compared with the number of employees per year of the moratorium. Sawmill and planning enterprises were the largest contributors: the number of employees increased by more than a third (nearly 5,000) [31]. However, the ambiguous situation has emerged in the furniture industry, where the number of employees has fallen since 2013, but in 2017 there was a slight increase in employment (8%).

In accordance with the declared goals, a new moratorium on the export of roundwood was created. However, since the implementation of the ban, the number of employees has increased only in the sawmill industry. Although the furniture industry produces deep wood processing products with much higher value added, there has been a reduction in the number of employees, and only in 2017 did the industry increase employment.

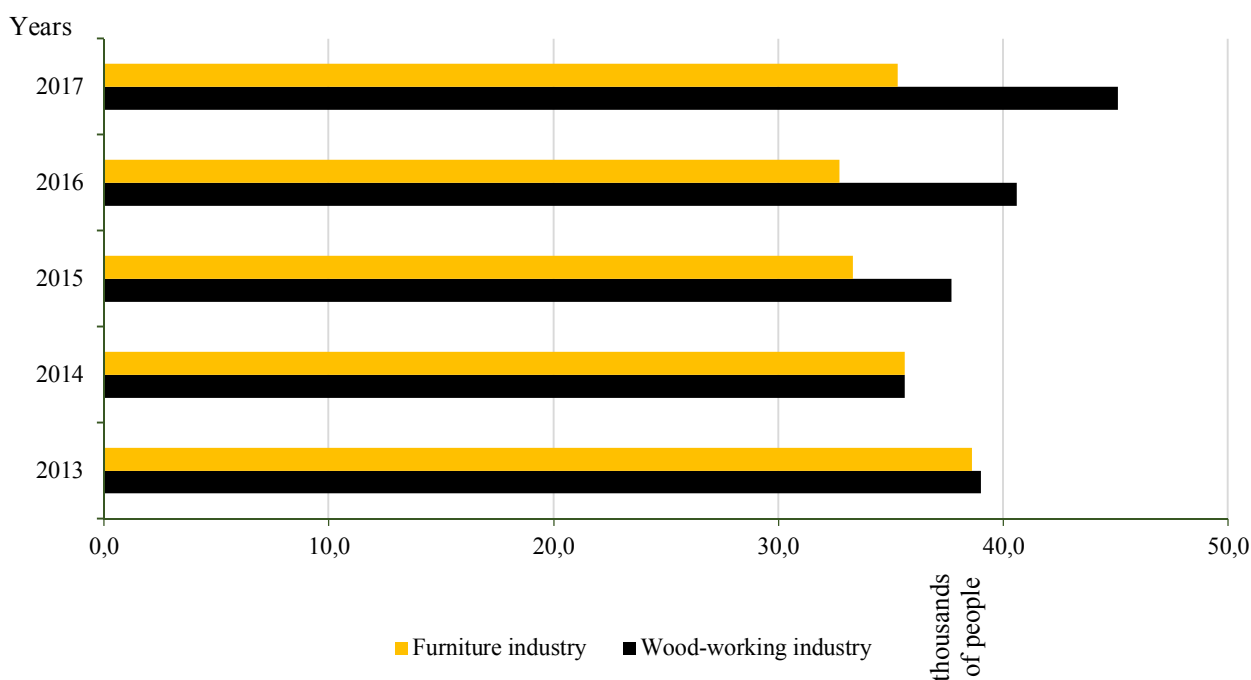


Fig. 4 Employment in the wood and furniture industries in 2013-2017

Source: material-based [30]

Conclusions and suggestions. Domestic state forestry policy should be aimed at preserving and restoring forests. Statistics show that the ban on roundwood abroad is inactive. The moratorium introduced has contributed to the development of the woodworking industry mainly due to the sawmill industry, which produces primary woodworking products, has also increased the number of woodworking enterprises and increased employment in these industries. The furniture industry also showed an increase in production and employment, but at a much lower pace than the manufacturing industry as a whole.

In the structure of Ukrainian exports, the share of products of wood and furniture industries has increased. This was due to the

reduction of Ukrainian export volumes against the background of increasing the share of exports of timber and wood products, as well as the resumption of sales of the furniture industry.

At the same time, making progress on lifting or suspending the moratorium on the export of roundwood is perhaps the most pressing issue for Ukraine's relations with the EU, as, as the European side points out, the ban on the export of roundwood contravenes the provisions of the Association Agreement and the Ukraine's WTO commitments.

The practical significance of the results allows to analyze existing and find new alternative export balance, ensuring equal opportunities and non-discrimination between domestic and European Union market.

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