Challenges Facing the Wood Trade in Europe

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Abstract

In this study we will focus on the analysis of the wood trade at global, European and national level (Romania), in order to identify both the demand and supply, as well as the challenges facing this market.

Sustainable management of forest resources is essential to ensure a continued and beneficial role of wood in economic development.

Further action is needed at European and governmental level to support producers and ensure a balance between economic needs and the sustainable conservation of forest resources on the European continent.

Key words: wood, trade, European Union
J.E.L. classification: K32, O13, O25, Q01

1. Introduction

The importance of this topic is given by the fact that the European wood trade is a complex area with multiple aspects to be addressed: resources, regulations, trade, demand, impact, economics.

Excessive exploitation of forest resources can have significant environmental impacts, contributing to deforestation, biodiversity loss and climate change. By adopting sustainable practices, it seeks to manage forest resources in a balanced and responsible way.

The aim of the paper is to present the wood trade in Europe, which is the world's leading timber producer. Also to emphasize Northern European exporters who play a vital role as suppliers of forest products. We will also present the main importing countries.

Also, we will focus on Romania, one of the European countries with an important role in the wood market, a competitive industry with an important contribution to GDP, which supports more than 150,000 jobs in this country.

2. Literature review

There are few scientific papers analyzing the timber trade at the European level, most of them being analyses made by international organizations.

One of the most important is this study by Eurostat, available online: "Agriculture, forestry and fishery statistics", which contains data on the production, export and import of wood products in the European Union. It gives us recent analysis of the European timber market. Another source is World Bank, WITS: "European Union Wood Imports by country 2022".

At the global level, we have several specialized studies, including Zarah Hamid, 2023, „Top 20 Largest Timber Exporting Countries in the World".

Regarding European Union, a recent study is "How much wood can we expect from European forests in the near future?" (Zarah, 2023). One of the research findings of this paper is that when regional characteristics are taken into account, they are determinant for forecasting future harvests, with a direct impact on the potential of wood production (i.e. export). Another conclusion of the above-mentioned study is that an important part of the timber potential is privately owned, which is less well known and quite surprising.

Eurostat analyzed “Roundwood removals by type of wood and assortment” in all European countries, between 2018-2024.

For the Romanian wood market, we analyzed the report ASFOR (Romanian Foresters Association): „World timber market in October. Europe is banking on timber construction”, 2024.

Another study considered was “Challenges in Forestry and Forest Engineering – Case Studies from Four Countries in East Europe”. The analysis focused on four countries: Romania, Croatia, Poland and Latvia. In all these countries, the state-owned forest sector was at least 45%. Environmental issues were also identified as challenging factors.

3. Research methodology

In order to analyze the evolution of the timber trade at the European level, we have chosen the quantitative analysis, as it is the most appropriate to compare the results obtained in the same figure.

In terms of research, comparative analysis is very attractive because we have the possibility to measure not only the properties, but also the realities between them.

The main source for world timber trade data was Eurostat. In addition to this, we analyzed other specialized reports, as can be seen below.

4. Findings

4.1. Brief analysis on the global wood trade

The world timber trade is a significant part of the global economy, with impacts on the environment, society and industry.

Major exporting countries include Canada, the United States, Russia, Brazil, and South-East Asian countries such as Indonesia and Malaysia. Major importers include China, the United States, Japan, India and European countries.

The timber trade covers a variety of products such as sawn timber, planks, veneer, paper and board, furniture, as well as engineered wood products such as flooring, windows and doors.

China tops this ranking with an impressive $8.8 billion worth of imports in 2022. As the world's largest consumer of roundwood, China's demand is driven by its booming timber industry, which uses wood for construction, furniture and packaging. The country's vast manufacturing sector, combined with its growing middle class, has fueled demand for wood products, making it an attractive market for roundwood exporters.

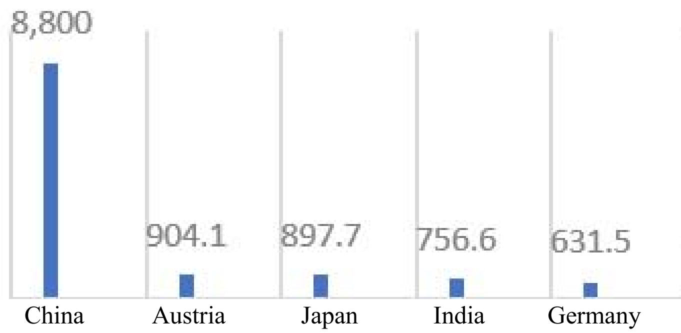
Austria ranks second with an import value of $904.1 million in 2022. Despite being a small landlocked country, Austria has a strong forestry sector that relies heavily on imported roundwood to meet its demand. In addition, the country boasts a well-developed wood-processing industry, which uses roundwood as a raw material for furniture, flooring and wooden structures.

Reaching the value of of $897.7 million in 2022, Japan ranks third. Japan's wood market is primarily driven by the construction industry, where wood is widely used for residential and commercial buildings. In addition, the nation's cultural affinity for wood-based products, such as traditional Shoji screens and Tatami mats, further contributes to the demand for round timber.

India ranks fourth with an import value of $756.6 million in 2022. The country's rapid industrialization, population growth and urbanization have given rise to a surge in infrastructure development, thereby increasing the demand for roundwood. Moreover, India's furniture industry has experienced a significant boom, leading to a greater need for wood resources.

Germany ranks fifth with an import value of $631.5 million in 2022. Despite being renowned for its timber production, Germany still relies on roundwood imports to supplement its domestic supply. The country's thriving construction sector, coupled with demand for wooden furniture, has fueled its import market for roundwood. (INDEX BOX, 2024)

Figure no. 1 Main roundwood importing countries in 2022



Source: Author's contribution

4.2. Features on the European wood trade

Europe is the leading producer of timber. Green building codes are followed here, so wood is a sustainable option for buildings, lowering the carbon footprint.

In 2021, the European Union's main timber trading partners were the United States, Switzerland, the United Kingdom, China and Norway for exports and China, the Russian Federation, the United States, Brazil and the United Kingdom for imports.

Global demand for forest products, including sawnwood, panels, pellets, pulp and paper is growing, and the forest industry in Northern Europe plays a vital role as a supplier of forest products to the rest of Europe and markets in Asia, the USA, Africa and the Middle East. The Nordic countries account for about 16% of the world's exported softwood timber, 16% of exported paper products and 14% of exported wood pulp (higher share of softwood pulp).

Germany remained in first place in 2022, as the main producer of roundwood (79 million cubic meters), and in 2nd and 3rd place were Sweden and Finland (with a production that fell between 66 and 77 million cubic meters).

Figure no. 2: Roundwood production, 2022 (1000 m^3)

	Total production
Germany	78.872
Sweden	77.200
Finland	65.637
France	53.139
Poland	45.693
Czech Republic	32.586
Austria	19.358
Spain	17.921
Romania	17.476
Latvia	15.427

Source: Author's contribution, based on data provided by Eurostat, 2024

Traditionally, conifers have always been the most important component of roundwood, with a share of around 69% in most member countries. Although conifer roundwood production shows minor fluctuations, non-conifer roundwood production has been constant over the last 20 years.

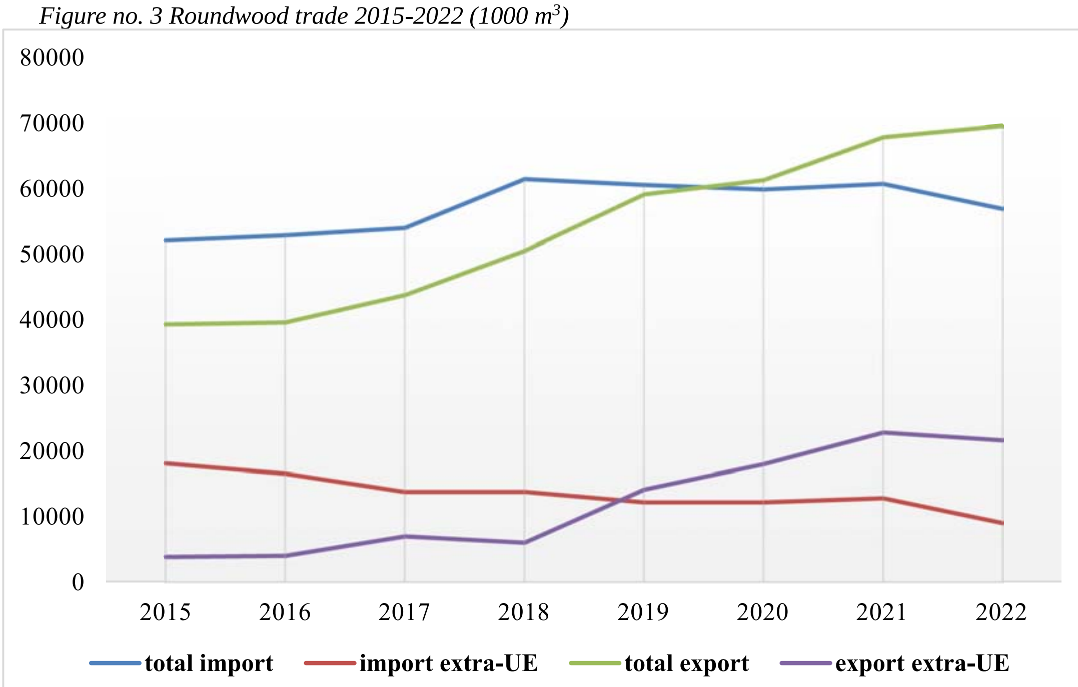
Imports during the analyzed period have slightly increased from 52,071 thousand cubic meters of imported quantity in 2015 to 56,880 thousand cubic meters of imported quantity in 2022.

Exports also showed an upward trend, with European countries exporting 39,288 thousand cubic meters of roundwood in 2015 and 69,571 thousand cubic meters in 2022.

A downward trend had extra-EU imports, from about 18,000 thousand m^3 in 2015 to 9,000 thousand m3 in 2022. Extra-EU exports increased visibly over the period analyzed, from 3,840 thousand m3 (2015) to 21,567 thousand m^3 (2022).

The European Union has been a net exporter of roundwood in recent years, with a value of 12.5 million m3 in 2022. In terms of destination, a quarter of production was used for as fuelwood and the remainder was used for lumber and veneer, pulp and paper production.

Figure no. 3 Roundwood trade 2015-2022 (1000 m^3)

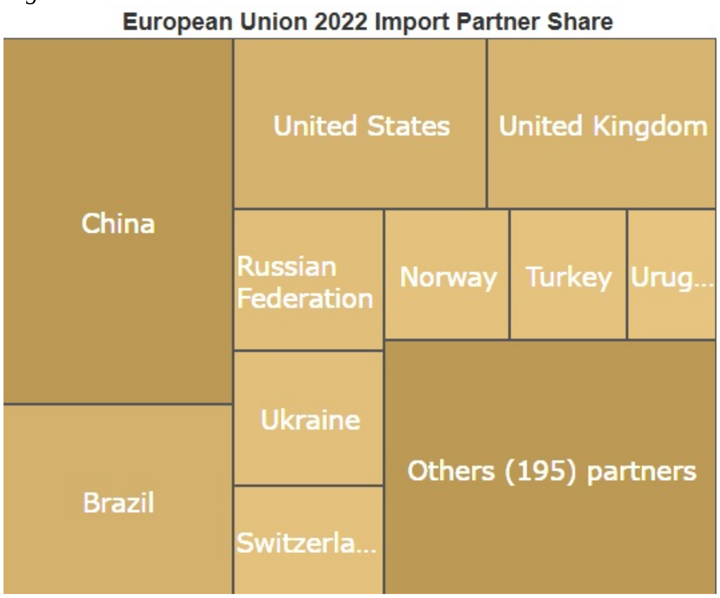


Source: Author's contribution, based on data provided by Eurostat, 2024

In the same year, trade in roundwood presents a net balance of 12 billion cubic meters. By analyzing the above graph, we can see the constant increase in total roundwood exports after 2016. the evolution was similar for exports outside the member countries. imports, however, had an opposite evolution, in the sense of their decrease since 2018, which led to the net surplus.

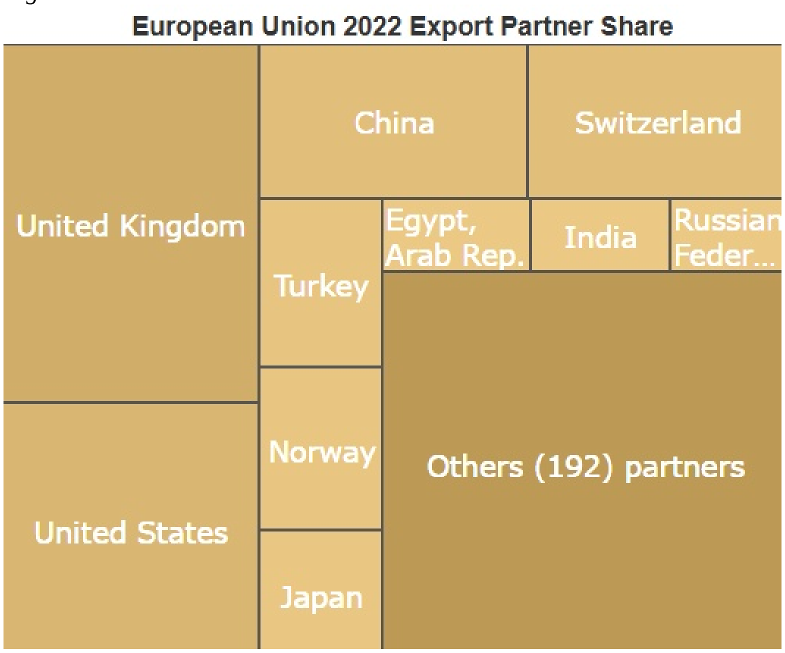
As regards the European Union's imort and export partners in the wood trade in 2022, they can be represented as follows:

Figure no. 4



Source: (World Bank, 2022)

Figure no. 5



Source: (World Bank, 2022)

As it can be seen in the pictures above, China and Brazil are in the top two places for imports and the UK and the USA for exports.

4.3. Wood industry in Romania

The Romanian wood industry is a competitive industry, with a direct and induced contribution of 3.5% to Romania's GDP, a net positive annual contribution of 3.5 billion Euro to Romania's trade balance, which supports 150,000 jobs in Romania, most of them in rural communities.

The wood trade in Romania is an important and varied industry, with an impact in several sectors, including construction, furniture, paper industry, but also in other sectors.

Romania has a significant forested area, with approximately 27% of its territory covered by forests, according to 2020 data. These forest resources provide a solid basis for the wood industry. Romania is both a producer and a consumer of wood products. In general, the country exports a wide range of wood products, including timber, firewood, furniture, paper and cardboard, while at the same time importing various products such as wood panels, flooring, furniture and other items.

The furniture industry is one of the most important branches of the wood industry in our country. There are numerous factories and workshops producing furniture for both domestic and foreign markets. Exports of wooden furniture and furniture components are significant for the country's economy.

In 2021, the top partner countries to which Romania exports timber include Italy, the United States, China, Japan and Germany. In the year 2022, Romania's exports of sawn timber to Sweden amounted to 18.73 thousand USD.

The total contribution of the forest sector and wood-based industries amounted to € 9.86 billion annually, taking into account both the direct impact, which has steadily increased over the last five years, and the indirect and induced effects. The direct contribution of forestry and wood-based industries was 1.6% of GDP in 2020, while the total impact of economic activities, including indirect and induced effects, is much higher, reaching 4.5% of GDP.

According to European statistics, Romania harvests a commercial volume of 33% of the total annual growth of forests, while the European average is around 63% and the top three countries harvest close to or even above 100%. Total timber production, at only 2.3 cubic meters of commercial roundwood per hectare, is among the lowest in Europe. Countries with similar conditions to Romania have a much higher harvest rate (Poland 4.6 mc/year/ha, Austria 4.9 mc/year/ha, Germany 6.8 mc/year/ha).

Around a third of the wood harvested is used as fuel for heating, making Romania one of the world's biggest consumers of firewood for heating, surpassed only by France among countries with a higher production than Romania.

In 2017, Romania exported 884,000 cubic meters of OSB, in 2021, the exported quantity will reach only 779,000 cubic meters, which represents a 12% decrease. The export of sawn hardwood lumber also saw a downward trend, from 642,000 cu m in 2017 to 534,000 cu m in 2021.

In 2021, our country exported $524m worth of sawn softwood lumber, $245m worth of sawn hardwood lumber and $287m worth of OSB.

Romania's wood industry is now going through a crisis, reflected in a fall in production, closures of production capacity and layoffs. According to the NSI, the drop in production in 2023 was 24% in the timber industry and 13% in the furniture industry, and this trend will continue in 2024, in the absence of an appropriate action plan.

5. Conclusions

Within the dynamic and complex framework of the year 2024, analyzing the timber market becomes essential for understanding the challenges and opportunities facing the forest industry. As far as Europe is concerned, the forest sector is at a crossroads, with declining sales and export challenges, but also promising opportunities in the area of timber construction.

Industrial processing generates pollution and nuisances, and the wood industry, like industries in other sectors, generates emissions of various types of pollutants during the various stages of machining and processing of wood materials, which are released into the natural environment in solid form (various types of waste), liquid form (chemicals with polluting properties) and gaseous form (solvents and various more or less dangerous gases). This industrial sector is also faced with increasing environmental pressure, mainly from people living near its facilities, but also from public opinion in general. Certain rules currently apply to manufacturing sites, while others will eventually apply to wood sector products, which will have to comply with certain environmental criteria laid down by the various regulations aimed at harmonising industrial activity with the need to protect the environment.

Illegal and unsustainable logging is a major concern in the timber trade. International organizations and countries have taken action to promote sustainable practices and combat illegal logging.

Many governments have enacted regulations governing the marketing of timber and timber products, such as in the United States (Lacey Act), Australia (Illegal Logging Prohibition Bill) and the European Union (EU; Timber Regulation [TBR]). The EU Timber Regulation (EUTR) is a key element in the efforts of the European Union to curb the trade in illegal timber products (Rougieux, Jonsson, 2021). These acts require products to be checked with all due diligence before being placed on the market.

As in other countries, sustainable management of forest resources and combating illegal deforestation are major concerns in Romania. The authorities and non-governmental organizations are working to promote responsible logging practices and to impose stricter regulations to protect the environment.

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