

## DYNAMICS OF DOMESTIC SUPPLY OF WINE IN THE EUROPEAN UNION

BÎTEA CĂTĂLIN ALEXANDRU<sup>1</sup>, SICOE-MURG OANA MARIA<sup>1</sup>,  
BĂLAN IOANA MIHAELA<sup>1\*</sup>, MATEOC-SÎRB NICOLETA<sup>1,2</sup>

<sup>1</sup>*University of Life Sciences "King Mihai I" from Timisoara/  
Faculty of Management and Rural Tourism, Timisoara, Romania*

<sup>2</sup>*Romanian Academy - Timisoara Branch/Research Center for Sustainable Rural  
Development of Romania, Timisoara, Romania*

\*Corresponding author's e-mail: ioanabalan@usvt.ro

**Abstract:** *This paper analyzes the dynamics of domestic wine supply in the European Union (EU) between 1990 and 2020, focusing on the influence of Common Agricultural Policy (CAP) reforms, climate change, and regional consumption trends. Domestic supply, defined as the volume of wine available for national consumption after accounting for imports and exports, reflects both production capacity and the internal structure of the market, influenced by trade strategies and consumer behavior. The study compares Western countries with strong viticultural traditions—Italy, France, Spain, Portugal, and Germany—with Central and Eastern European countries such as Romania, Hungary, and Bulgaria, using official statistical data and quantitative methods. Results reveal a stable and efficient supply model in Western Europe, supported by modern infrastructure, effective policy frameworks, and sustainability-oriented agricultural practices. Conversely, Eastern European countries exhibit greater volatility in supply due to post-communist transitions, uneven vineyard modernization, and fluctuating domestic demand. Romania, despite its considerable viticultural potential, still shows significant variability, though recent improvements suggest positive developments driven by EU investments and modernization initiatives. The findings underscore the importance of a coherent and integrated policy approach that bridges regional disparities, aligns agricultural and trade strategies with local realities, and ensures a balanced, resilient, and sustainable domestic wine supply across the EU.*

**Key words:** *wine, domestic supply, European Union, Romania, production*

### INTRODUCTION

Wine production and consumption are central to the culture, economy and identity of many European Union Member States [5,6,8]. The EU is the world's largest producer and consumer of wine, with a significant contribution to the global market through countries such as Italy, France and Spain [9,14]. Over the decades, the sector has undergone major transformations driven by climatic, political and socio-economic factors [16,17,18].

An essential element in understanding the dynamics of the wine market is domestic supply, an indicator that reflects the amount of wine available for domestic consumption, after taking into account production, imports and exports. The evolution of this indicator provides valuable information on the adaptation of the agricultural system to market demands and on consumer behavior [1,3,15].

Romania, with a strong winemaking tradition, occupies an important place among the countries of Eastern Europe, being among the largest wine producers in the region [4,7,12,13]. At the same time, its neighbors – Bulgaria and Hungary – face similar challenges, but also comparable opportunities in terms of sustainable development of the sector [2,10,11].

This paper aims to analyze the internal supply of wine in the European Union since 1990, with a focus on the main Western producing states and on Romania and its Eastern European neighbors. Through a quantitative approach, complemented by graphical representations, the aim will be to identify trends, regional differences and determining factors influencing the level of internal supply.

Wine is not only an agricultural product but also a strategic commodity that reflects broader socio-economic dynamics within the European Union. Its role extends beyond production and trade, influencing rural development, tourism, gastronomy, and even international diplomacy. The symbolic and cultural value of wine contributes to the global image of Europe as a reference point for quality, diversity, and tradition [19,20].

In addition, the dynamics of the wine market are increasingly shaped by sustainability imperatives. Issues such as reducing the carbon footprint of viticulture, adopting water-efficient irrigation technologies, preserving biodiversity in vineyard ecosystems, and promoting organic and low-input practices are becoming decisive factors for competitiveness [21,22]. These dimensions highlight that domestic supply should not be interpreted solely as an economic indicator, but also as a reflection of the sector's adaptation to environmental and social challenges.

Another important aspect is the role of trade liberalization and globalization. The entry of new producers from outside Europe, combined with shifting consumer preferences towards premium, organic, or locally produced wines, has generated new pressures on traditional producers. This context makes the monitoring of domestic supply an essential instrument for evaluating both self-sufficiency and market resilience [23,24].

Therefore, the aim of this research is to provide a comparative analysis of the evolution of wine domestic supply in the European Union between 1990 and 2020, with emphasis on the major Western producers and on Romania and its Eastern European neighbors, in order to highlight structural trends, regional specificities, and the factors shaping long-term sustainability of the sector.

## **MATERIALS AND METHODS**

The present analysis uses statistical data collected from official international sources, covering the period 1990–2020 for most of the Member States of the European Union. The dataset includes annual values of domestic wine supply (expressed in tonnes) and is organised by country and year.

The main research method consists of quantitative analysis, using statistical processing and data visualization tools to capture developments over time. The analyses focus both on general trends and on comparisons between groups of countries: on the one hand, the large established producers in Western Europe (Italy, France, Spain, Portugal and Germany), and on the other hand, the countries in Eastern Europe with an emerging tradition (Romania, Bulgaria and Hungary).

For interpretation, both multi-annual averages and percentage variations are used to highlight the dynamics of supply. The results are presented in the form of summary tables and comparative graphs, accompanied by relevant interpretations.

## **RESEARCH RESULTS**

The analysis of the internal supply of wine in the European Union, carried out over the period 1990–2020, highlights the structural differences between countries with a consolidated wine-growing tradition and the Central and Eastern European states, which are in the process of modernizing their agricultural sector. Internal supply reflects the volume of wine available for domestic consumption, being influenced by national production, imports, exports and direct consumption.

### 1. Evolution of domestic supply in Italy, France, Germany, Portugal and Spain (1990–2020)

Between 1990 and 2020, France, Germany, Italy, Portugal and Spain remained the pillars of European viticulture, maintaining constant and qualitative production despite climatic and economic fluctuations, consolidating their position in the global wine market.

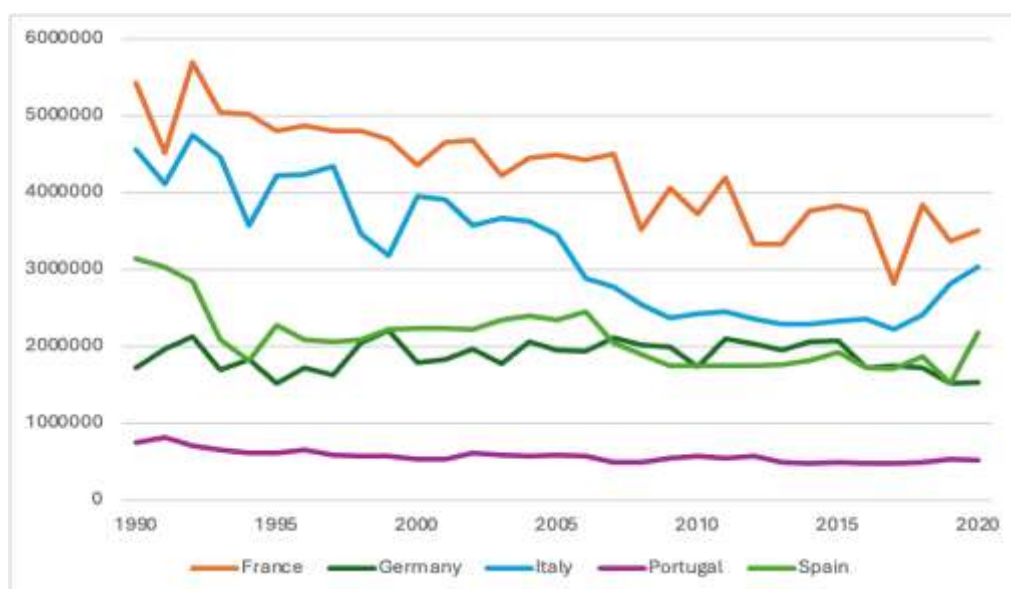
**Table 1.**

#### Domestic wine supply (tonnes)

Year	France	Germany	Italy	Portugal	Spain
1990	5,421,000	1,726,000	4,554,000	757,000	3,137,000
1991	4,514,000	1,967,000	4,114,000	817,000	3,037,000
1992	5,690,000	2,124,000	4,745,000	708,000	2,846,000
1993	5,041,000	1,690,000	4,465,000	657,000	2,082,000
1994	5,015,000	1,826,000	3,576,000	622,000	1,814,000
1995	4,799,000	1,524,000	4,218,000	614,000	2,273,000
1996	4,869,000	1,725,000	4,233,000	651,000	2,087,000
1997	4,806,000	1,631,000	4,341,000	594,000	2,066,000
1998	4,810,000	2,053,000	3,466,000	573,000	2,082,000
1999	4,695,000	2,209,000	3,178,000	572,000	2,220,000
2000	4,361,000	1,786,000	3,948,000	532,000	2,240,000
2001	4,657,000	1,835,000	3,910,000	538,000	2,236,000
2002	4,679,000	1,967,000	3,574,000	617,000	2,225,000
2003	4,224,000	1,776,000	3,663,000	595,000	2,351,000
2004	4,455,000	2,061,000	3,632,000	574,000	2,396,000
2005	4,488,000	1,952,000	3,448,000	591,000	2,340,000
2006	4,420,000	1,933,000	2,881,000	571,000	2,450,000
2007	4,506,000	2,110,000	2,771,000	499,000	2,053,000
2008	3,514,000	2,022,000	2,554,000	492,000	1,904,000
2009	4,058,000	1,989,000	2,371,000	548,000	1,751,000
2010	3,717,000	1,739,000	2,432,000	574,000	1,751,000
2011	4,193,000	2,106,000	2,447,000	545,000	1,749,000
2012	3,337,000	2,040,000	2,364,000	570,000	1,750,000
2013	3,331,000	1,956,000	2,296,000	493,000	1,766,000
2014	3,763,000	2,057,000	2,290,000	487,000	1,812,000
2015	3,837,000	2,076,000	2,332,000	490,000	1,928,000
2016	3,748,000	1,725,000	2,355,000	487,000	1,724,000
2017	2,822,000	1,756,000	2,225,000	483,000	1,713,000
2018	3,850,000	1,719,000	2,406,000	501,000	1,871,000
2019	3,371,000	1,520,000	2,820,000	538,000	1,518,000
2020	3,501,000	1,533,000	3,031,000	518,000	2,187,000

Source: FAO, 2025

The five countries analyzed – Italy, France, Germany, Portugal and Spain – are among the most important European players in the wine sector, both in terms of production and domestic consumption.



**Figure 1. Evolution of domestic supply in Western countries**

Source: FAO, 2025

The data analyzed show that these countries have maintained a high and constant level of domestic supply.

- Italy and France lead the way in terms of volume, with values that consistently exceed several million tons annually, which reflects both domestic production capacity and the size of national consumption. These countries have managed to stabilize their domestic balance through effective policies of stock control, export incentives and management of domestic demand.

- Spain and Portugal, although with a solid tradition, record lower volumes compared to Italy or France, but constant over time, which denotes a stable market and an efficient adaptation to the dynamics of demand.

- Germany stands out for a balance between production, domestic consumption and exports, with stable and moderate domestic supply values, around 1–2 million tons annually.

Overall, Western countries have well-structured wine systems, in which domestic supply is the result of integrated strategic planning, supported by research, national and European agricultural policies, but also by the culture of responsible consumption.

## **2. Evolution of domestic supply in Romania, Bulgaria and Hungary (1990–2020)**

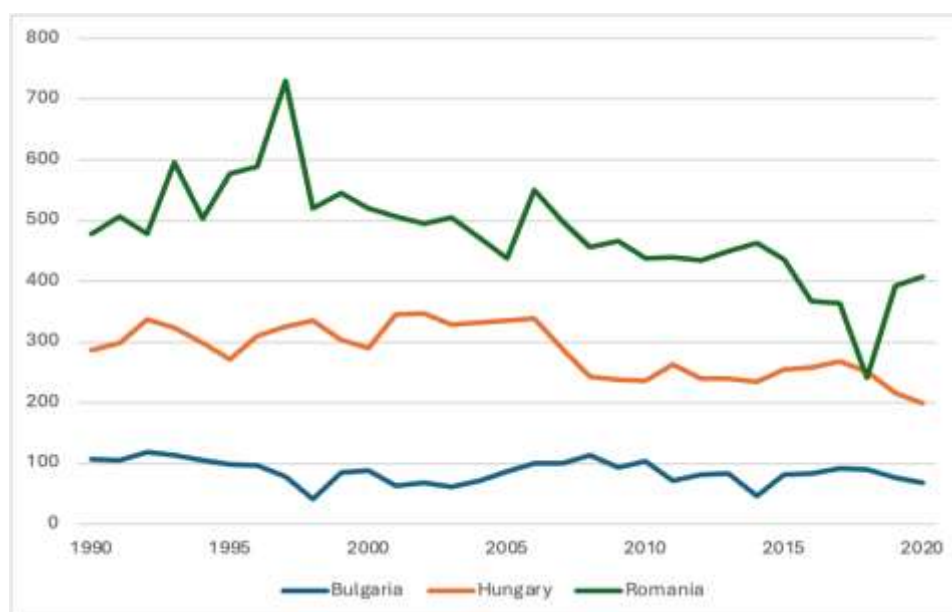
Between 1990 and 2020, Romania, Hungary and Bulgaria went through major transformations in the wine sector, marked by the post-communist transition, the decrease in initially cultivated areas, followed by significant investments and modernization starting in the 2000s, which led to an increase in wine quality and the consolidation of the domestic market.

Table 2.

<b>Domestic wine supply (tonnes)</b>			
<b>Year</b>	<b>Bulgaria</b>	<b>Hungary</b>	<b>Romania</b>
1990	107,000	287,000	479,000
1991	105,000	299,000	506,000
1992	118,000	337,000	478,000
1993	114,000	324,000	595,000
1994	105,000	299,000	504,000
1995	99,000	272,000	577,000
1996	97,000	311,000	589,000
1997	78,000	325,000	730,000
1998	42,000	335,000	521,000
1999	85,000	304,000	545,000
2000	88,000	290,000	521,000
2001	64,000	346,000	507,000
2002	68,000	348,000	495,000
2003	61,000	328,000	505,000
2004	71,000	332,000	471,000
2005	87,000	336,000	438,000
2006	101,000	338,000	550,000
2007	101,000	288,000	498,000
2008	114,000	243,000	457,000
2009	93,000	238,000	467,000
2010	104,000	236,000	438,000
2011	71,000	263,000	439,000
2012	82,000	240,000	435,000
2013	83,000	240,000	450,000
2014	47,000	235,000	463,000
2015	81,000	255,000	436,000
2016	84,000	258,000	367,000
2017	92,000	268,000	364,000
2018	90,000	252,000	242,000
2019	76,000	216,000	392,000
2020	69,000	199,000	407,000

Source: FAO, 2025

Romania, Hungary and Bulgaria largely ensure their domestic supply of wine from their own production, each with a strong winemaking tradition and a relatively stable balance between production and consumption.



**Figure 2. Evolution of domestic supply in Romania and its neighbors (1990–2020)**

*Source: FAO, 2025*

For Eastern European countries, domestic supply is characterized by significantly lower values, with obvious fluctuations.

- Romania, although it has one of the largest wine-growing areas in Eastern Europe, records oscillating values, located between 400,000 and 700,000 tons annually. These variations are influenced by the instability of production (climatic conditions, land fragmentation, technological differences), but also by domestic consumption affected by socio-economic factors.

- Hungary presents a slight stability, with values between 200,000 and 300,000 tons, reflecting a more mature domestic market, but still dependent on the volatility of production.

- Bulgaria has the lowest levels, below 200,000 tons in most years, which indicates structural difficulties in the wine sector, but also a decreasing domestic consumption.

These data confirm the existence of a significant gap between the east and west of the EU, but also the possibility of a gradual rapprochement in the context of the integration of European policies and the funding available for restructuring the sector.

## CONCLUSIONS

Domestic wine supply reflects the structural performance of the wine sector in each Member State, being influenced by both production capacity and consumption levels and trade strategies. Traditional countries have managed to maintain a stable and efficient supply, while countries in transition are still undergoing an adaptation process.

Italy and France consistently dominate the European domestic market, with the capacity to satisfy domestic demand and support constant exports without affecting their own supply. This balance is supported by high-performance agriculture, quality policies and an integrated distribution system.

Germany, Portugal and Spain show stable domestic supply, reflecting an efficient adaptation of production capacity to domestic requirements, without overproduction or excessive dependence on imports.

Romania has significant potential, but it is still insufficiently exploited, and domestic supply is influenced by fluctuating production, the lack of uniform modernization

of plantations, and domestic demand affected by demographic and economic changes.

Bulgaria and Hungary show lower levels of domestic supply, despite their wine-growing tradition, a sign that post-accession restructuring has not been sufficiently effective or uniform, and the sector requires additional investment for long-term stability.

Overall, there is a trend of convergence within the European Union, but it is slow and influenced by the capacity of each state to implement reforms, access European funds and adapt the structure.

## REFERENCES

- [1]. **BALAN I.M., GHERMAN E.D., BRAD I., GHERMAN R., HORABLAGA A. TRASCA T.I.**, 2022. Metabolic food waste as food insecurity factor—causes and preventions. *Foods* 11(15), 2179. <https://doi.org/10.3390/foods11152179>
- [2]. **BALAN I.M., GHERMAN E.D., GHERMAN R., BRAD I., PASCALAU R., POPESCU G., TRASCA T.I.**, 2022, Sustainable nutrition for increased food security related to Romanian consumers' behavior, *Nutrients* 14(22), 4892. <https://doi.org/10.3390/nu14224892>
- [3]. **BALAN I.M., TRASCA T.I., BRAD I., BELC N., TULCAN C., RADOI B.P., RINOVETS A.E., KIBA D.I.**, 2023, Approaches to Limiting Food Loss and Food Waste. In *Transitioning to Zero Hunger*, 215–244, <https://doi.org/10.3390/books978-3-03897-863-3-9>
- [4]. **BALAN I.M., TRASCA T.I., IANCU T., BELC N., RADULOV I., TULCAN C.**, 2024, Food safety in the Sustainable Food Industry. In *Smart Food Industry: The Blockchain for Sustainable Engineering*, Chapter, 218–239, <https://doi.org/10.1201/9781003231172-16>
- [5]. **CORVELLEC H., STOWELL A.F., JOHANSSON N.**, 2022, Critiques of the circular economy, *Journal of industrial ecology*, 26(2), pp. 421-432, <https://doi.org/10.1111/jiec.13187>
- [6]. **GEISSDOERFER M., PAULO S., NANCY MP BOCKEN, ERIK JAN HULTINK**, 2017, The Circular Economy—A new sustainability paradigm?, *Journal of cleaner production*, 143, 757-768, <https://doi.org/10.1016/j.jclepro.2016.12.048>
- [7]. **GENCIA A.D., BALAN I.M.**, 2024, Reevaluating Economic Drivers of Household Food Waste: Insights, Tools, and Implications Based on European GDP Correlations, *Sustainability*, 16, 7181, <https://doi.org/10.3390/su16167181>
- [8]. **HEFLER Y. T., MEIDAD K.**, 2023, Grape Wine Cultivation Carbon Footprint: Embracing a Life Cycle Approach across Climatic Zones, *Agriculture*, 13(2), 303, <https://doi.org/10.3390/agriculture13020303>
- [9]. **KHAN N., FAHAD S., NAUSHAD M., FAISAL S.**, 2020, Grape Production Critical Review in the World, available at SSRN: <https://ssrn.com/abstract=3595842> or <http://dx.doi.org/10.2139/ssrn.3595842>
- [10]. **KORHONEN J., ANTERO H., JYRI S.**, 2018, Circular economy: the concept and its limitations, *Ecological economics*, 143, 37-46, <https://doi.org/10.1016/j.ecolecon.2017.06.041>
- [11]. **KORSUNOVA A., HORN S., VAINIO A.**, 2021, Understanding circular economy in everyday life: Perceptions of young adults in the Finnish context, *Sustainable Production and Consumption*, 26, 759-769
- [12]. **LILE R., OCNEAN M., BALAN I.M., KIBA D.I.**, 2023, Challenges for Zero Hunger (SDG 2): Links with Other SDGs. In *Transitioning to Zero Hunger*, 9–66
- [13]. **MODOI O-C., FLORIN-CONSTANTIN M.**, 2022, E-waste and end-of-life vehicles management and circular economy initiatives in Romania, *Energies*, 15(3), 1120

- [14]. **SMITH L., WHIGHAM P.**, 1999, Spatial aspects of vineyard management and wine grape production, in SIRC 99–The 11th Annual Colloquium of the Spatial Information Research Centre, University of Otago Dunedin, New Zealand.
- [15]. **STAHEL W.R.**, 2016, The circular economy, *Nature* 531, no. 7595, 435-438, <https://doi.org/10.1038/531435a>
- [16]. **TAMBOVCEVA TATIJANA T., LEONID HRYHOROVYCH MELNYK, IRYNA BORYSIVNA DEHTYAROVA, SO NIKOLAEV**, 2021, Circular economy: Tendencies and development perspectives, <https://essuir.sumdu.edu.ua/handle/123456789/85156>
- [17]. **TRASCA T.I., OCNEAN M., GHERMAN R., LILE R.A., BALAN I.M., BRAD I., TULCAN C., FIRU-NEGOESCU G.A.**, 2024, Synergy between the Waste of Natural Resources and Food Waste Related to Meat Consumption in Romania, *Agriculture* 14(4), 644, <https://doi.org/10.3390/agriculture14040644>
- [18]. **VELENTURF A.P.M., PHIL PURNELL**, 2021, Principles for a sustainable circular economy, *Sustainable production and consumption*, 27, 437-457, <https://doi.org/10.1016/j.spc.2021.02.018>
- [19]. **\*\*\*, FAO**, 2025, Crops and livestock products <https://www.fao.org/faostat/en/#data/QCL>