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Wine's Place in the Global Beverage Markets: Insights from a New Database and Novel Trade Indexes

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make history.

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Wine's Place in the Global Beverage Markets: Insights from a New Database and Novel Trade Indexes

Abstract

We introduce a new database on bilateral trade flows for the world's main beverages including wine, as well as some grape-based products. We use these data to analyse the structure of wine trade in the context of the global beverage markets, and the evolution of these markets since the mid-1990s. In doing so, we employ various trade indexes, including novel indexes that we introduce in this study to measure export and import concentrations and similarities, which we use in multivariate statistical analyses. We then show that wine trade growth has increased in value, similarly to that of spirits and beer, but less in quantity. This suggests a demand for lower quantities of higher-quality wine, which climate change may make harder to achieve. More pronounced excess stocks of lower-quality wine are another potential consequence of these changes in demand. We show, however, that grape-based products other than wine can be very useful in mitigating potential wine oversupply issues. Further research for diverse purposes could draw on this freely available database.

Keywords: trade concentration index, trade similarity index, international trade, alcohol markets, wine, beer, spirits, premiumisation, oversupply

JEL codes: Q10, Q17, F10, F14

1. Introduction

International trade in wine is now worth 37 billion USD annually, but its importance is quite recent. Not much wine was traded during the first wave of globalisation (early/mid 19th century to WWI), but the arrival of phylloxera in Europe caused an increase in the amount of wine traded, mainly by France from its North African colonies (Ayuda et al., 2020; Meloni & Swinnen, 2018a). In the lead into the second wave of globalisation (since the early 1960s), the main European wine-producing countries started exporting large amounts of wine in response to decreasing domestic consumption (Anderson & Pinilla, 2021). Then, in the 1990s, a few non-European countries joined those traditional European wine countries in exporting large quantities of wine (Labys & Cohen, 2006).

This article introduces a recently compiled database (i.e., Anderson and Puga (2024)) that focuses on this most recent period of the current (second) wave of globalisation, i.e., from the mid-1990s. This database provides wine trade flows for wine, as well as for other alcoholic products and some non-alcoholic products related to the wine industry. Using this database, we aim to analyse the current structure and recent evolution of bilateral wine trade in the context of global beverage markets.

We show that wine trade has experienced value growth, mirroring trends in the spirits and beer markets. However, the volume of wine traded has expanded at a slower pace, suggesting a shift in consumer demand toward fewer quantities of higher-quality

wine — although future trends in wine consumption in South Asia and Sub-Saharan Africa could change this shift. This potential premiumisation is intensifying the pressure on producers to meet the increasing desire for premium products, something that climate change is making more difficult. These changes in demand could lead to excess stocks of lower-quality wine. We show how trade of grape-based spirits, vermouth, vinegar, and grape must can alleviate wine oversupply issues.

Our analysis is based on key export statistics and trade indexes. We introduce two types of indexes in this article: one to measure export or import concentration and another to measure export or import similarities. While our export concentration indexes suggest wine exports from most leading countries are relatively diversified in their destinations, sudden trade costs or policy disruptions can still have significant impacts. Our multivariate statistical analyses based on export similarity indexes suggest that many major wine exporters share similar markets, but that geographic proximity often influences the composition of countries from which importers source their wine.

The database that we introduce in this article has numerous potential applications, including further research on the role of some grape products in alleviating wine oversupply. In combination with Anderson and Pinilla (2024), this database also provides the data needed to update the trade component of the Global Beverage Markets Model (Wittwer & Anderson, 2020). It could also be combined with production databases such as Anderson and Nelgen (2020) to shed light on the links between wine production and trade. Previous studies have shown a link between trade and terroir (Meloni & Swinnen, 2018b), and between trade and grape varieties (Puga, Sharafeyeva, & Anderson, 2022).

The remainder of this article is structured as follows. Section 2 introduces the data used to generate Anderson and Puga (2024). Section 3 explains the indexes and multivariate statistical methods used in this study. Section 4 presents and discusses the results. Section 5 concludes with key messages and recommendations for future research.

2. Data

We use trade data from the Base pour l'Analyse du Commerce International (BACI) database, which is published by the Centre d'Études Prospectives et d'Informations Internationales (CEPII). The source of the BACI data is the United Nations' Comtrade database, but CEPII performs various operations to improve that dataset.

Import values are usually reported as CIF (cost, insurance, and freight), while export values are commonly reported as FOB (free on board). CEPII uses statistical methods to compute 'FOB import values' and then match those values with the FOB export values. They then derive unique bilateral trade flow figures after accounting for the reliability of each country's data. Gaulier and Zignago (2010) explain the full process followed by CEPII to generate its BACI data.

There are three main reasons why we favour BACI data over Comtrade data. Firstly, having matched FOB export and 'import' values makes comparative analyses

easier. Secondly, the CEPII questions the quality of the data provided by some countries and makes changes accordingly. By contrast, the United Nations tends to accept official data even in cases where it is of questionable quality. Therefore, we trust BACI data more than Comtrade data. Thirdly, some economists have pointed out to us that it has become increasingly difficult to work with Comtrade data in the past few years. Our database, based on BACI data, can help those economists work around some of those difficulties.

We use BACI data on imports and exports by value and quantity, which we use to compute other statistics (e.g., FOB price) and trade indexes described below to generate a global beverage trade database since 1995 (i.e., Anderson and Puga (2024)). Table 1 shows the 6-digit Harmonised System (HS) codes for the 22 beverages in our database. In addition, we combine HS codes into four other categories: all water, codes 220110, 220190, and 220210; all wine, codes 220410, 220421, and 220429; all vermouth, codes 220510 and 220590; and all spirits, codes 220710, 220720, 220810, 220820, 220830, 220840, 220850, and 220890.

Table 1: HS codes used in the database for this study.

Code	Description
200960	Grape juice or must not fermented or spirited
220110	Mineral and aerated waters not sweetened or flavoured
220190	Ice, snow and potable water not sweetened or flavoured
220210	Beverage waters, sweetened or flavoured
220300	Beer: made from malt
220410	Wine: sparkling
220421	Wine: still, in containers holding 2 litres or less
220429	Wine: still, in containers holding more than 2 litres
220430	Grape must: n.e.s. in heading no. 2009, n.e.s. in item no. 2204.2
220510	Vermouth and other wine of fresh grapes, flavoured with plants or aromatic substances, in containers holding 2 litres or less
220590	Vermouth and other wine of fresh grapes, flavoured with plants or aromatic substances, in containers holding more than 2 litres
220600	Vermouth and other wine of fresh grapes, flavoured with plants or aromatic substances, in containers holding more than 2 litres
220600	Beverages, fermented: (eg cider, perry, mead)
220710	Undenatured ethyl alcohol: of an alcoholic strength by volume of 80% vol. or higher
220720	Ethyl alcohol and other spirits: denatured, of any strength
220810	Alcoholic preparations: compound, of a kind used for the manufacture of beverages
220820	Spirits obtained by distilling grape wine or grape marc
220830	Whiskies
220840	Rum and tafia
220850	Gin and geneva
220890	Spirits, liqueurs and other spirituous beverages: n.e.s. in heading no. 2208
220900	Vinegar and substitutes for vinegar: obtained from acetic acid

Supplementary Table 1 shows the countries in our beverages database, as well as the groups of countries to which they belong. Some countries fall into one of these two groups: European Union members as of April 2024 (EU27) or eight important New World wine exporters (NW8). We also classify every country as either Western European key wine net exporters (WEX), other Western European mainly wine net importers (WEM), Eastern Europe and Central Asia (ECA), Australia and New Zealand (ANZ), United States and Canada (USC), Latin America and Caribbean (LAC), Africa and Middle East (AME), NE, SE, and South Asia and Pacific Islands (APA), other Western European wine net importers (OWEM), other Eastern Europe and Central Asia (OECA), other Latin America and Caribbean (OLAC), other Africa and Middle East (OAME), and other Asia and Pacific Islands (OAPA). The last five are 'residual' groups of countries that are of minor importance in the global wine markets.

3. Methods

We use our trade database to describe global wine trade and compare it to that of other beverages. Most of our analysis is based on descriptive statistics. We rely on raw trade figures plus a variety of trade indexes that can be computed using trade value or quantity data. We use three well-established indexes, as well as other novel indexes that we introduce for the first time in this article. We also perform multivariate statistical analyses using two of our novel indexes. This section describes those indexes and the associated statistical analyses.

These novel indexes and the associated statistical analyses allow us to summarise and better portray large numbers of bilateral trade figures. The large number of countries involved in beverage trade means that variables such as revealed comparative advantage, trade specialisation, and intra-industry trade are cumbersome measures. The well-established indexes that we use in this study allow us to objectively quantify those variables. Further, our indexes allow us to quantify trade concentration and similarities, and our multivariate statistical analyses help us to provide an easy-to-interpret picture of export and import similarities across countries.

The first well-established trade index is the value-based index of revealed comparative advantage (RCA). For any beverage k, the formula for this index for a country or group of countries is given by:

$$RCA = \frac{exports_{k,i}/exports_i}{exports_k/exports}, \quad (1)$$

where i is the exporter country or group of countries. A country with an RCA higher than 1 has a revealed comparative advantage in exporting beverage k. This indicates that the country exports a higher proportion of beverage k relative to its total exports compared to the global average.

The second well-established index is the trade specialisation index (TSI). For any beverage, this index can be computed for a country or group of countries as:

$$TSI = (exports - imports)/(exports + imports). \quad (2)$$

This index ranges between -1 and 1. Net importers have a negative TSI, while the TSI for net exporters is positive. A TSI close to 0 suggests the country shows a high level of intra-industry trade.

The third well-established index provides a more explicit indication of intra-industry trade. For any beverage, and for any country or group of countries, the intra-industry trade index (IIT) is given by:

$$IIT = 1 - \frac{|exports - imports|}{exports + imports}. \quad (3)$$

This index takes values between 0 and 1; the closer to 1, the more intra-industry trade.

For analysing concentration in export destinations, we introduce a new index that we name the export concentration index (ECI). For any beverage, and for any country or group of countries, the ECI formula is:

$$ECI = 100\left(\sum_{c=1}^{C} f_c^2\right), \quad (4)$$

where f_c is the value (or quantity) exported to country c as a proportion of the total exports. An analogous formula can be used with imports for calculating an import concentration index (ICI).

The formula for the ECI index is similar to that of the Herfindahl–Hirschman index, which is commonly used for analysing concentration in economics. Its formula is also similar to that of the Simpson index in ecology (Simpson, 1949), the effective number of parties index in politics (Laakso & Taagepera, 1979), the Hunter–Gaston index in microbiology (Hunter & Gaston, 1988), and the cultivar concentration index in viticulture (Puga & Anderson, 2023). We are not aware of any concentration index of this type in the international trade literature.

Our export concentration index has a straightforward interpretation. It answers the following question: If two units (USD or tons) of beverage exported from one country (or group of countries) to another country (or group of countries) were randomly selected, what is the probability in percentage terms that those two units of that beverage are exported to the same country? The higher the probability, the more concentrated the exports of that beverage are for that country or group of countries.

Another novel index that we introduce here is the exports similarity index (ESI). For any beverage, the ESI between export countries (or groups of countries) $i1$ and $i2$ is given by:

$$ESI_{i1,i2} = \frac{\sum_{c=1}^{C} f_{i1,c} f_{i2,c}}{\left(\sum_{c=1}^{C} f_{i1,c}^2\right)^{1/2} \left(\sum_{c=1}^{C} f_{i2,c}^2\right)^{1/2}}, \quad (5)$$

where $f_{i1,c}$ ($f_{i2,c}$) are the exports to country c from country (or group of countries) $i1$ ($i2$) as a proportion of the total exports from $i1$ ($i2$).

The ESI ranges between 0 and 1, and it is higher when the trade (for a given beverage) between two countries is more similar. An index of 0 represents completely different buyers, while an index of 1 means that both countries (or group of countries) have exactly the same buyers, and the proportion sold to each of those buyers is also the

same. We are not aware of any similarity index of this type in the international trade literature.

We use the ESI to perform a hierarchical cluster analysis of countries based on export similarities in wine. We first compute a matrix of wine ESI for all countries. We then transform this matrix into a dissimilarity matrix in which the dissimilarity index between two countries $i1$ and $i2$ is simply $1 - ESI_{i1,i2}$. With this dissimilarity matrix, we cluster the countries using an average-linkage hierarchical clustering method.

Hierarchical clustering starts with all export countries assigned to N separate groups, each group containing one country. The two countries with the highest ESI (lowest dissimilarity index) are merged into one group, leading to $N - 1$ groups. The closest two groups are then merged so that the total number of groups becomes $N - 2$. This process continues until all countries are merged into one single group of size N. Average-linkage clustering determines the closest two groups based on the average dissimilarity between countries in the two groups and gives equal weight to each country.

This hierarchical cluster analysis can be visualised as a dendrogram. Such a graph shows countries or groups of countries united by horizontal lines that converge into vertical lines. Figure 1 shows an illustrative example of a dendrogram based on export similarity indexes for one product and four countries. The closer two countries or groups of countries are in their export similarities — in terms of both export destinations and the share of the product that is exported to each destination — the shorter the lines uniting those countries.

In Figure 1, Countries B and C are united by short horizontal lines, because the export similarity index between those two countries is higher than 0.9 — or a dissimilarity index lower than 0.1, as shown by the figure's horizontal axis. That group of countries (B and C) is also quite similar in their export markets to Country D. By contrast, these three countries (B, C, and D), are quite different in their export markets to Country A.

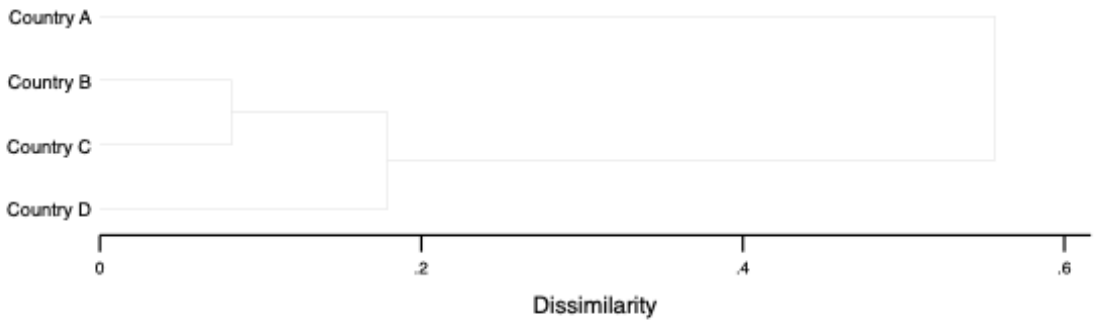

Figure 1: Illustrative example of dendrogram based on export similarities between countries.

An analogous formula can be used with imports for calculating an import similarity index (ISI). We use a matrix of ISI to cluster the countries based on their import similarities, following the process outlined above.

4. Results and Discussion

Figure 2 and Table 2 (columns 2 to 4) show wine export statistics. Italy and France account for one-third of the world's wine exports by quantity and half by value. France sells its wine for more than twice the world's average export price of 3.4 USD/litre. By contrast, Spain's wine exports are valued at one-third those of France, even though Spain is the most important wine exporter by quantity — followed closely by Italy. The following eight countries together account for one-third of the world's exported wine by quantity, each of them exporting between 2 and 5% of the global value: Australia, Chile, the United States, New Zealand, Germany, Portugal, Argentina, and South Africa. Of these countries, only the United States and New Zealand have average prices above the world's average. All other countries export 11% by value and 13% by quantity, even when considering major trade hubs like Singapore, the Netherlands, and (to a great extent) the United Kingdom.

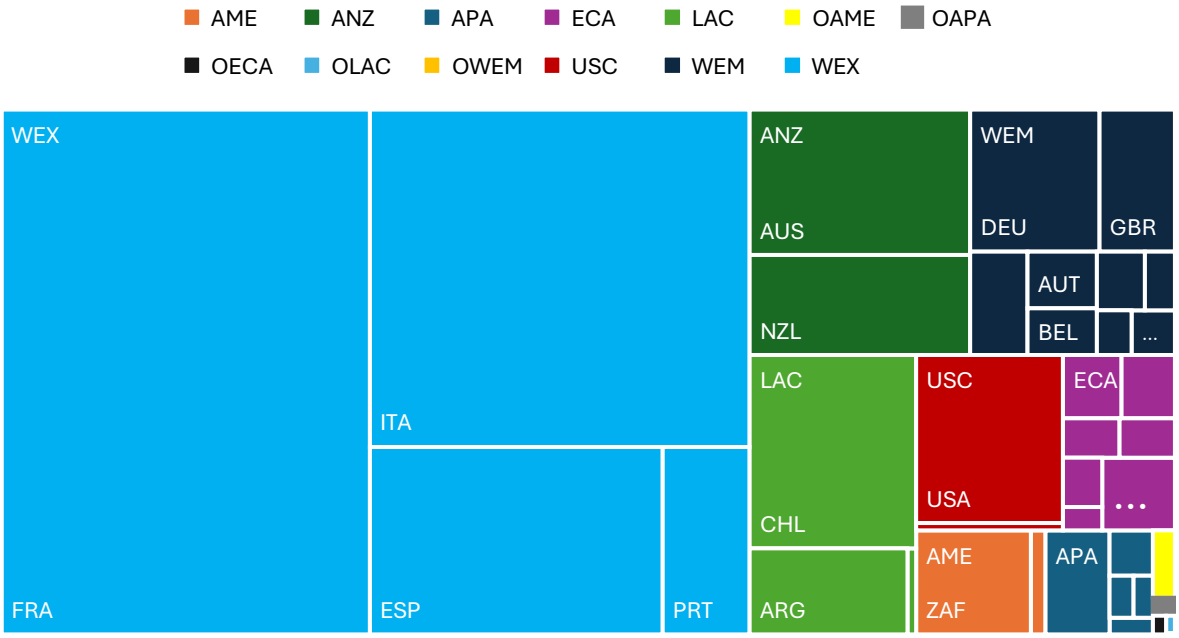

Figure 2: Wine export shares by value.

Notes: Average values between 2017 and 2022. Each country is classified as either Western European key wine net exporters (WEX), other Western European mainly wine net importers (WEM), Eastern Europe and Central Asia (ECA), Australia and New Zealand (ANZ), United States and Canada (USC), Latin America and Caribbean (LAC), Africa and Middle East (AME), NE, SE, and South Asia and Pacific Islands (APA), other Western European wine net importers (OWEM), other Eastern Europe and Central Asia (OECA), other Latin America and Caribbean (OLAC), other Africa and Middle East (OAME), and other Asia and Pacific Islands (OAPA). Supplementary Table 1 provides the country codes.

Figure 3 is analogous to Figure 2, but it shows the share of wine imports by country instead of wine exports. The United States is the largest wine importer by value, followed by the United Kingdom, Canada, Germany, China, and Japan. The United Kingdom imports cheaper wine than the United States and is the largest importer by quantity. That

said, the average price of wine imported by the United Kingdom is not as cheap as that imported by Russia, Germany, Italy, and, notably, France. Instead, countries like the United States, Norway, Canada, Japan, and Switzerland import wine that is between one-third and two times the price of the world's average.

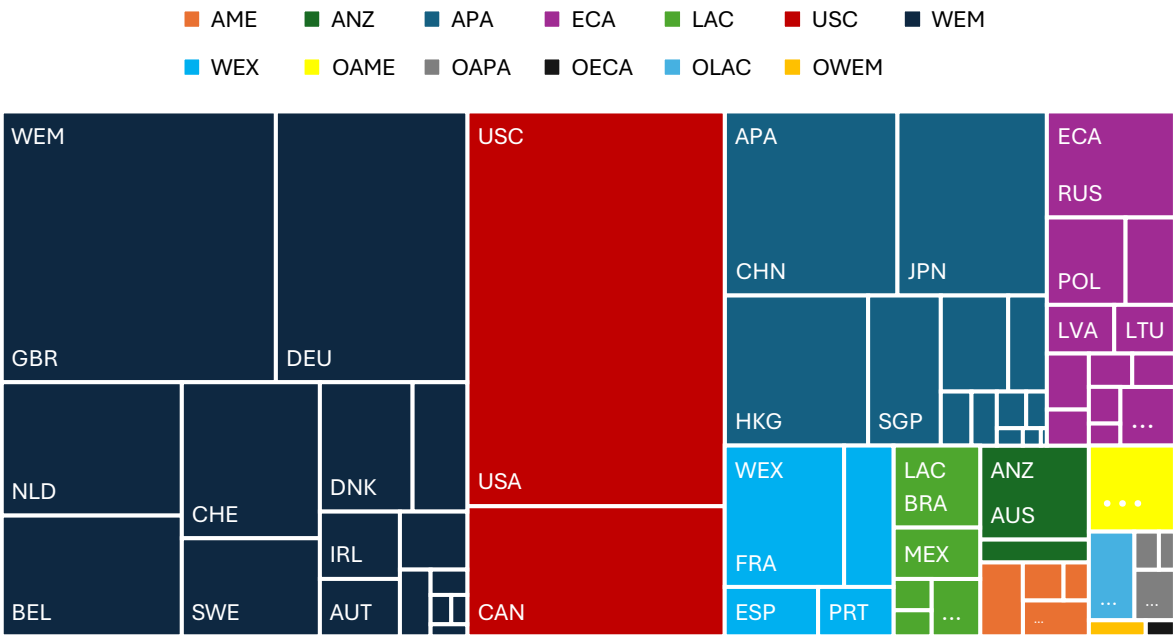

Figure 3: Wine import shares by value.

Notes: Average values between 2017 and 2022. Each country is classified as either Western European key wine net exporters (WEX), other Western European mainly wine net importers (WEM), Eastern Europe and Central Asia (ECA), Australia and New Zealand (ANZ), United States and Canada (USC), Latin America and Caribbean (LAC), Africa and Middle East (AME), NE, SE, and South Asia and Pacific Islands (APA), other Western European wine net importers (OWEM), other Eastern Europe and Central Asia (OECA), other Latin America and Caribbean (OLAC), other Africa and Middle East (OAME), and other Asia and Pacific Islands (OAPA). Supplementary Table 1 provides the country codes.

The last columns of Table 2 show various trade indexes for the top 25 wine exporters. There is little correlation between the wine exports' value and the index of revealed comparative advantage for the main exporters. Georgia, Moldova, New Zealand, and Chile have a higher index of revealed comparative advantage than France. Instead, some large exporters like the United States and Germany have a low index of revealed comparative advantage.

Table 2: Key wine statistics and trade indexes for the 25 largest wine-exporting countries.

Country	Value (million USD)	Quantity (thousand tons)	Price (USD/litre)	Value RCA	Value TSI	Quantity TSI	Value IIT	Quantity IIT	Value ECI	Quantity ECI
France	11700	1576	7.4	10.6	0.82	0.34	0.18	0.66	7.7	7.9
Italy	7747	2118	3.7	7.4	0.89	0.81	0.11	0.19	11.0	12.0
Spain	3317	2184	1.5	4.9	0.83	0.93	0.17	0.07	6.2	10.3
Australia	1943	735	2.6	3.7	0.45	0.69	0.55	0.31	14.9	17.9
Chile	1941	859	2.3	14.9	0.98	0.99	0.02	0.01	7.6	9.2
USA	1494	365	4.1	0.5	-0.65	-0.63	0.35	0.37	13.3	15.7
New Zealand	1336	286	4.7	21.6	0.79	0.71	0.21	0.29	21.2	22.1
Germany	1112	368	3.0	0.4	-0.51	-0.61	0.49	0.39	6.8	9.0
Portugal	990	319	3.1	7.0	0.62	0.06	0.38	0.92	6.5	5.9
Argentina	821	310	2.6	8.9	0.98	0.99	0.02	0.01	12.8	10.1
South Africa	719	421	1.7	3.4	0.85	0.93	0.15	0.07	7.6	9.6
UK	648	83	7.8	0.8	-0.77	-0.89	0.23	0.11	15.0	10.3
Singapore	403	14	28.4	0.7	-0.36	-0.51	0.64	0.49	38.0	18.1
Netherlands	358	76	4.7	0.3	-0.66	-0.75	0.34	0.25	11.2	14.1
Austria	238	67	3.5	0.7	-0.11	-0.08	0.89	0.92	21.5	38.1
Georgia	225	77	2.9	30.2	0.86	0.59	0.14	0.41	36.6	41.0
Lithuania	204	64	3.2	2.6	-0.06	-0.08	0.94	0.92	82.2	86.3
Belgium	197	42	4.7	0.3	-0.77	-0.82	0.23	0.18	21.4	26.0
Denmark	168	36	4.7	0.8	-0.65	-0.69	0.35	0.31	14.9	27.8
Moldova	135	127	1.1	22.0	0.93	0.95	0.07	0.05	9.6	15.4
Hungary	131	112	1.2	0.6	0.65	0.87	0.35	0.13	9.9	15.8
China	118	6	20.4	0.0	-0.92	-0.98	0.08	0.02	55.4	27.6
Latvia	116	25	4.6	3.0	-0.38	-0.50	0.62	0.50	76.5	71.7
Switzerland	106	35	3.0	0.2	-0.87	-0.79	0.13	0.21	15.8	45.5
Greece	93	30	3.1	1.4	0.25	0.29	0.75	0.71	17.2	22.1
World	37248	10996	3.4							

Notes: Average wine export value, quantity and price between 2017 and 2022. RCA stands for index of revealed comparative advantage in wine, TSI for wine trade specialisation index, IIT for wine intra-industry trade index, and ECI for wine export concentration index, each defined in the text.

The trade specialisation indexes reveal that most of the main wine exporters are solid net exporters, although some, like the United States and Germany, are net importers. The trade specialisation indexes by value and quantity are usually similar, but there are some exceptions. The most relevant is France, which has a trade specialisation index of 0.82 by value but just 0.34 by quantity. France is the main importer of inexpensive bulk wine from Spain (Cardebat, 2024).

The 11 largest wine exporters have an average intra-industry trade index of 0.24 by value and 0.30 by quantity. This low degree of intra-industry trade reflects the demand for wine at the final and intermediate product levels (Anderson et al., 2016). Of these 11 countries, Australia has the highest level of intra-industry trade by value, followed by Germany, Portugal, and the United States. By contrast, Chile and Argentina import extremely low levels of wine compared to what they export.

Economic theories offer explanations as to why we observe these patterns of bilateral wine trade. Indeed, the wine industry has been the subject of some of the earlier economic models explaining international trade. Adam Smith illustrated the concept of absolute advantage by explaining how it would make little sense for Scotland to grow grapes. Later, Ricardo's model used wine as one of two products in a two-country model explaining the concept of comparative advantage. Both absolute and (especially) comparative advantage can explain much of the patterns in global wine trade. Indeed, it is not surprising that the main wine exporters have wine regions at similar latitudes with climates that make it possible to produce grapes of decent quality.

Yet, much of what is observed in international wine trade can be better explained by New Trade Theory and New-New Trade Theory. Agglomeration economies like those in larger wine regions tend to be more productive than those in smaller regions, thanks to specialised infrastructure, a skilled labour pool, and the widespread use of modern technologies, among other benefits. These wine regions (and countries) can benefit from increasing returns to scale at the regional level. Within this context, the more efficient, often larger, firms become successful exporters (Melitz, 2003). These firms often grow and benefit from increasing returns to scale. This, in turn, raises the overall productivity of some wine countries and makes them more competitive in the global wine markets.

Traditional trade models also struggle to fully explain the high degree of intra-industry trade that we observe in the wine industry. New Trade Theory (Krugman, 1980) provides a better explanation, especially considering that wine is far from being a homogeneous product. Different distinctive wine styles are produced across regions. Consumers value variety, which explains much of the patterns in intra-industry trade that we observe in the wine industry. Further, intra-industry trade in wine also occurs at the intermediate product level, with large quantities of wine traded in bulk.

The export concentration index gives the probability that two randomly selected units of wine from one country are exported to the same country. For the 11 largest exporters, that probability is, on average, 11% if the unit is USD and 12% if the unit is kilograms. The wine exports of five of those eleven countries are considerably more concentrated than those of the other countries in that group: Italy, Argentina, the United States, Australia, and, most notably, New Zealand.

Trade shocks can have very detrimental consequences for some countries' wine industries from time to time (Carrasco et al., 2023). Although to different extents, some of these shocks affect all countries. COVID-19 is a recent example of such a shock. Wittwer & Anderson (2021), Carrasco et al. (2023), and Macedo et al. (2023) elaborate on the impact of COVID-19 on global wine trade. While all these studies expose changes in global wine trade caused (or exacerbated) by the pandemic, the degree to which those changes have led to structural shifts remains unclear.

Yet, our database shows that global wine exports in 2020 were worth 33 billion (FOB) USD, the same as the average for the previous five years. Wine exports then jumped to 39 billion (FOB) USD in 2021 and 38 billion in 2022. However, the degree of change in wine trade from pre-pandemic levels has been different across exporting and importing countries (del Rey & Loose, 2023).

Other shocks affect one or just a few countries. This is common in wine trade, as wine is a frequent target for retaliation in trade disputes (Ridley et al., 2022). Even though the degrees of concentration uncovered by the export concentration index might seem low, this type of shock can have devastating consequences in local wine industries. A recent example is Australia, whose industry has faced difficulties after China imposed almost-prohibitive tariffs on Australian wine (Anderson, 2024). Indeed, our database shows that wine exports from Australia to China in 2022, the year after China enforced its tariffs on Australian wine, were 99% lower than in 2019, when they reached a record high of 796 million (FOB) USD and accounted for over one-third of Australian wine exports.

Trade shocks can amplify in trade wars. Anderson & Wittwer (2025) use their GLOBAL-BEV model to look at potential outcomes of a US-led trade war on wine trade. They show that while some countries may potentially benefit directly from their exports being hit with lower tariff hikes than other countries, that benefit could be offset by increased competition in third-country markets. Retaliation and counterretaliation could further enhance the negative impacts of such trade war. Moreover, once account is taken of the damaging effect on consumer expenditure resulting from increased uncertainty, the authors conclude that all countries are likely to end up with lower wine export earnings.

Anderson & Wittwer (2025) point out that the US' sudden tariff hikes have had a profound adverse effect on the benefits from the past eight decades of multilateral trade negotiations, and that it will trigger subsequent trade negotiations between- non-US countries and associated adjustments. In this context, policymakers should be prompted by the wine industry to negotiate trade policies that could benefit their industry. Meanwhile, wine business managers will need to be even more flexible and proactive in adjusting to changing market conditions.

Figure 4 shows how the 25 largest wine exporters compare in terms of their export markets. Shorter lines uniting countries or groups of countries relate to more similar export markets in terms of the value share exported to each destination. Italy, France, Spain, and Portugal share similar export markets. It is the same with New Zealand, Argentina, and Australia. Those two groups are also relatively similar in their export markets and not that different to Chile. Other large wine exporters are less similar to

these countries in their export markets: South Africa, Germany, and, notably, the United States.

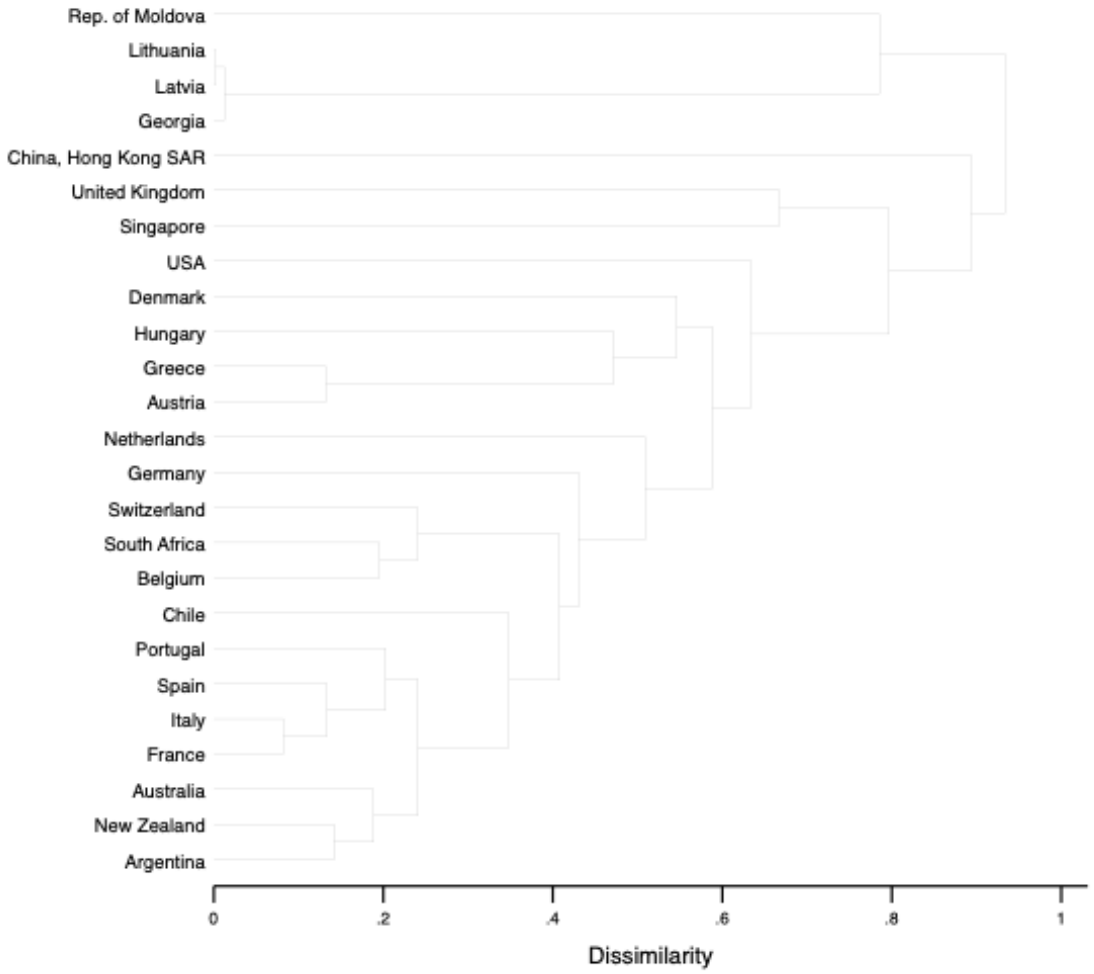

Figure 4: Dendrogram based on similarities between the 25 major wine exporter countries in terms of their export destinations in 2022.

Figure 5 is analogous to Figure 4, but it shows how the 25 largest wine importers compare in terms of the countries from which they source their wine. The groupings are sometimes diverse, but geographic proximity seems to play a fundamental role in many cases, as it is expected from trade theory and has been shown in various studies (e.g., Bargain et al. (2022), Dal Bianco et al. (2016), Castillo et al. (2016)). Countries such as Brazil and Australia are very distinct with regard to how much wine they import from each country, although not as distinct as Russia — noting this refers to a heavily sanctioned country.

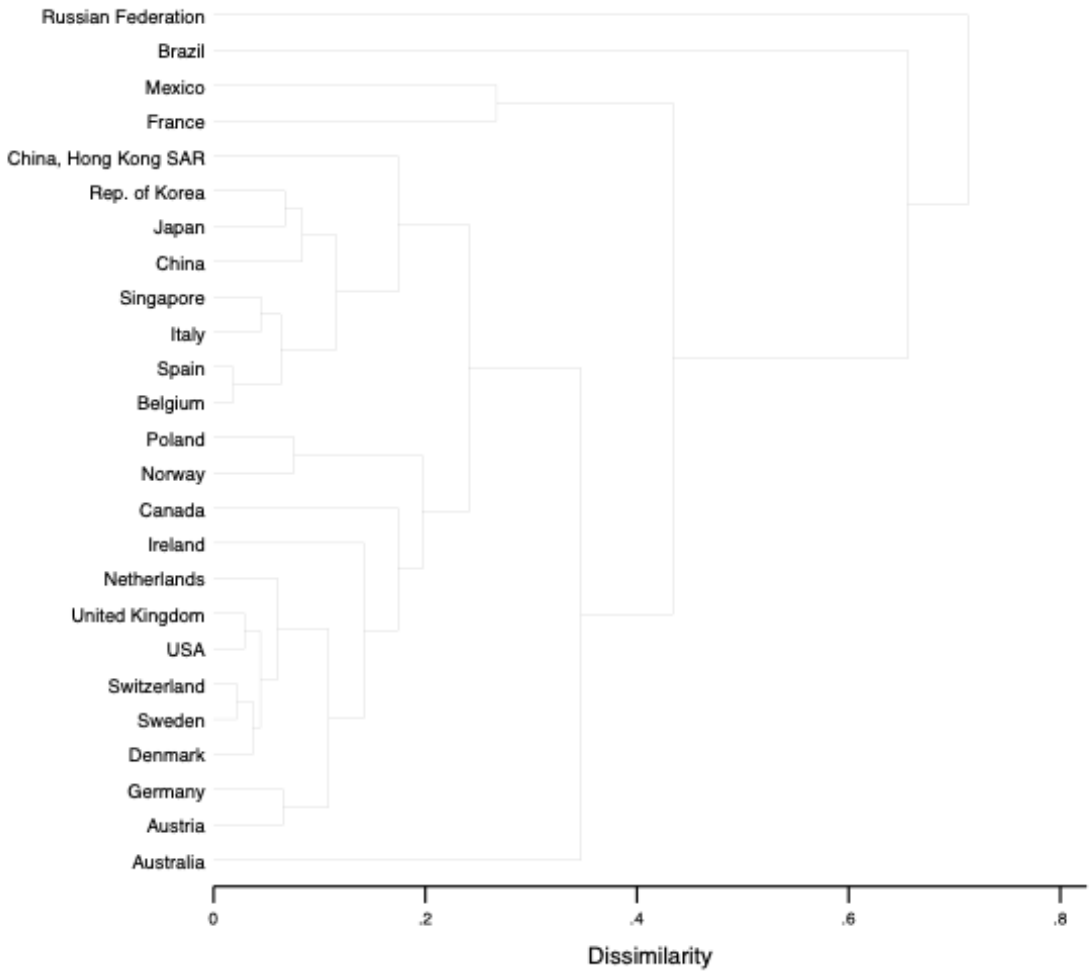

Figure 5: Dendrogram based on similarities between the 25 major wine importer countries in terms of wine suppliers in 2022.

Figure 6 shows the evolution of traded wine since the mid-1990s. Wine trade has almost doubled in quantity, and it is 3.6 times higher in terms of value. During this period, the value of wine traded has increased at a yearly rate of 5%. Since the early 2010s, the quantity of wine traded has remained fairly stable, and its value has increased at a lower rate than in previous years. While the quantity of sparkling wine traded has increased at a slightly slower pace than that for still wine, its price has risen steadily, leading to an export value more than four times higher than that of the mid-1990s.

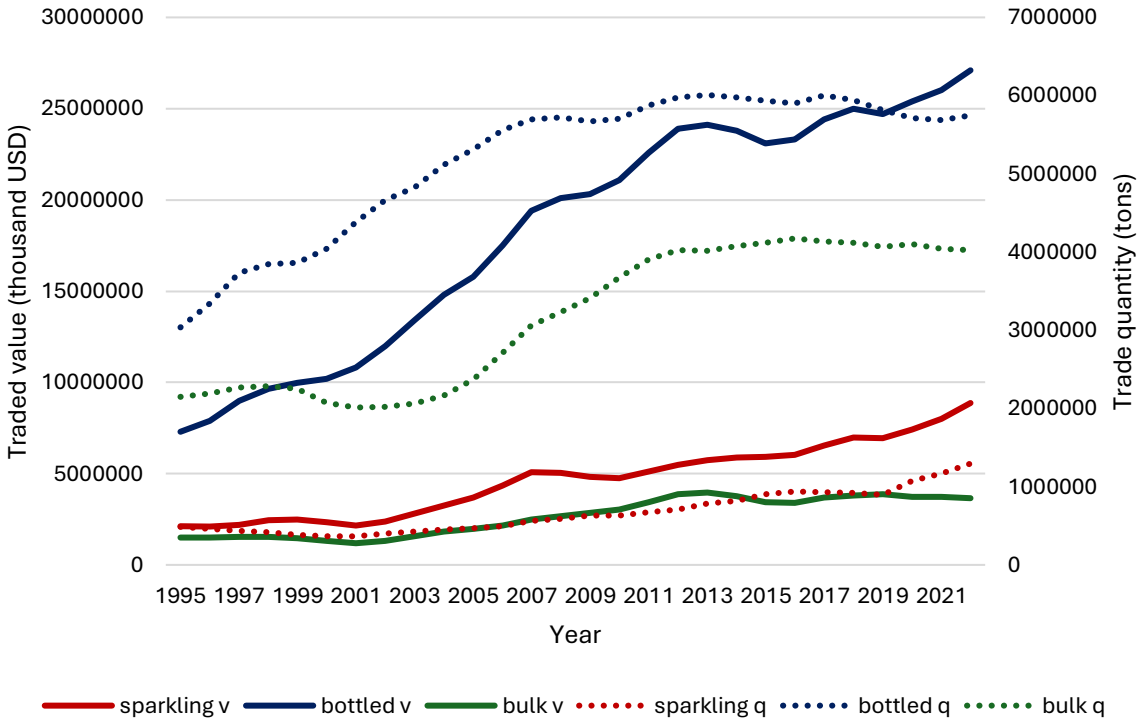

Figure 6: Evolution of traded wine since 1995.

Notes: Based on 3-year moving averages. 'v' stands for value and 'q' for quantity.

Figure 7 shows how the increase in the value traded since the mid-1990s has been similar for the three main alcohol categories. It increased between three to four times for each of wine, beer, and spirits. The quantities traded have almost trebled for spirits, but have less than doubled for wine, with beer between the two. FOB prices have increased 90% for wine, compared to 43% for beer and 31% for spirits.

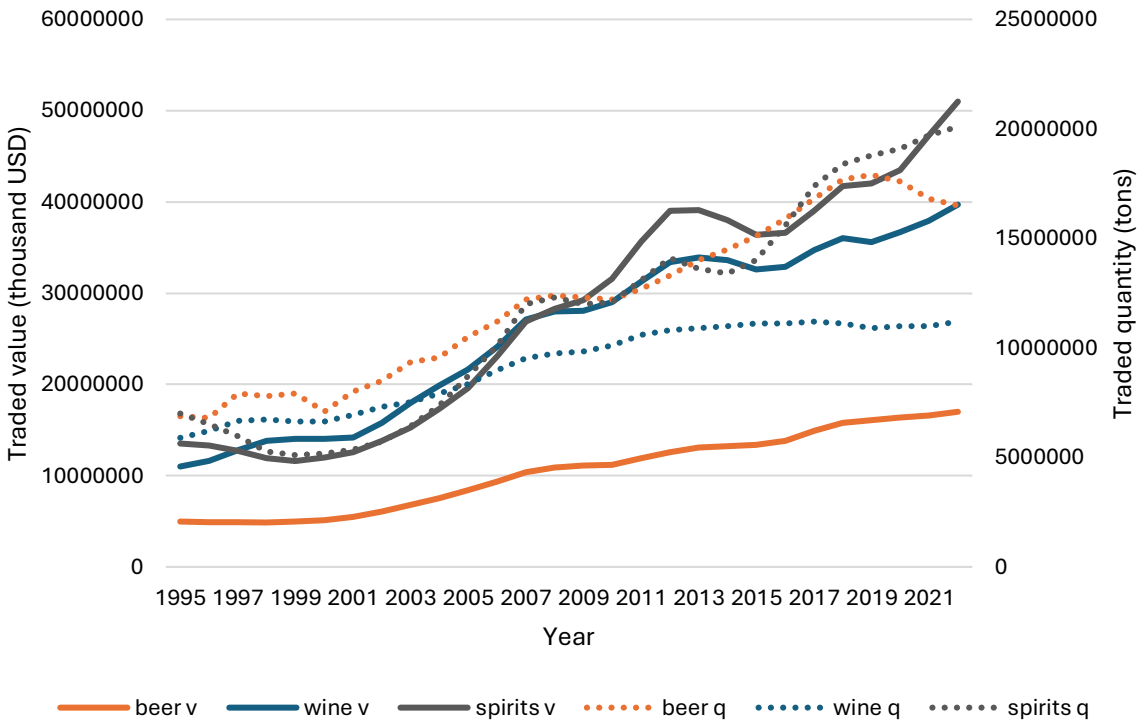

Figure 7: Evolution of traded beverages since 1995.

Notes: Based on 3-year moving averages. 'v' stands for value and 'q' for quantity.

While the FOB prices for the main alcoholic beverages have increased in nominal terms, it is less evident whether their prices have also increased in real terms. Deflating trade prices is not straightforward, as there is often no appropriate index for deflating these prices. While far from ideal, Table 3 shows the evolution of the average real prices for various alcoholic beverages using the US consumer price index (CPI) for deflating nominal trade prices. This table suggests that the real prices for exported wine have remained fairly stable, with differences across wine categories. It also suggests that the real prices for exported beer and spirits have decreased, a bit for beer and substantially for spirits.

Table 3: Evolution of average real price (USD/litre) for all traded wine, beer, and spirits since 1995.

Year	All wine	Sparkling wine	Bottled wine	Bulk wine	All beer	All spirits
1995	3.6	8.4	4.6	1.4	1.4	3.7
1996	3.5	8.4	4.4	1.3	1.4	3.8
1997	3.5	9.2	4.4	1.2	1.1	3.9
1998	3.7	10.6	4.5	1.2	1.1	4.1
1999	3.7	11.5	4.5	1.1	1.1	4.0
2000	3.6	10.9	4.3	1.1	1.2	3.9
2001	3.4	9.7	4.1	1.0	1.1	3.9
2002	3.5	9.6	4.2	1.1	1.2	3.9
2003	3.8	10.5	4.4	1.2	1.2	3.8
2004	3.9	11.1	4.5	1.3	1.2	3.6

2005	3.9	11.8	4.5	1.2	1.2	3.4
2006	3.9	12.7	4.6	1.2	1.2	3.3
2007	4.0	12.8	4.8	1.1	1.2	3.2
2008	3.9	11.7	4.8	1.1	1.2	3.1
2009	3.9	10.5	4.9	1.1	1.2	3.3
2010	3.9	10.1	5.0	1.1	1.2	3.5
2011	3.8	9.9	5.0	1.1	1.2	3.5
2012	3.9	9.9	5.1	1.2	1.2	3.5
2013	3.9	9.2	5.0	1.2	1.2	3.6
2014	3.8	8.9	4.9	1.1	1.1	3.5
2015	3.6	8.1	4.8	1.0	1.1	3.2
2016	3.6	7.8	4.8	1.0	1.1	2.9
2017	3.7	8.4	4.9	1.1	1.1	2.7
2018	3.8	8.9	4.9	1.1	1.0	2.6
2019	3.7	8.9	4.9	1.1	1.0	2.6
2020	3.8	7.8	5.0	1.0	1.1	2.6
2021	3.7	7.4	4.9	1.0	1.1	2.6
2022	3.5	6.9	4.7	0.9	1.0	2.5

Notes: Based on 3-year moving averages. FOB (2022) real prices, deflated using the US consumer price index (CPI) for all urban consumers, published by the US Bureau of Labour Statistics at https://www.bls.gov/cpi/tables/supplemental-files/.

While real prices of exported wine may not have changed drastically since the mid-1990s, trade costs have gone down since then (see, e.g., Anderson & van Wincoop (2004)). Puga et al. (2022) use gravity models to show how the impact of distance on wine trade has decreased through time due to lower trade costs. Therefore, even after considering that real prices of exported wine have remained fairly stable, the higher increase in (nominal) wine prices compared to those of other alcoholic beverages reinforces previous studies (e.g., Anderson and Wittwer (2019)) suggesting premiumisation of wine.[1]

In this context of increasing premiumisation, climate change is challenging high-quality wine production (Santos et al., 2020; van Leeuwen et al., 2024), especially because a great part of wine production already takes place in regions that are quite hot for producing high-quality wine made of the mainstream grape varieties (Puga, Anderson, et al., 2022). Therefore, climate change will make premiumisation more challenging going forward. If South Asia and Sub-Saharan Africa became significant importers of lower-quality wine, these regions could play a crucial role in mitigating the issue.

Meanwhile, per adult alcohol consumption has been decreasing globally. Between 1995 and 2022, per adult consumption of alcohol decreased about one-tenth for beer and spirits, and close to one-quarter for wine. Nonetheless, population growth means that total alcohol consumption increased during that same period; more than

[1] Note that premiumisation involves product differentiation and value-added positioning in addition to higher prices.

one-third for beer and spirits but less than one-tenth for wine. These changes in alcohol consumption, shown in Figure 8, may partially explain why the increase in trade for spirits and beer has been higher than for wine.

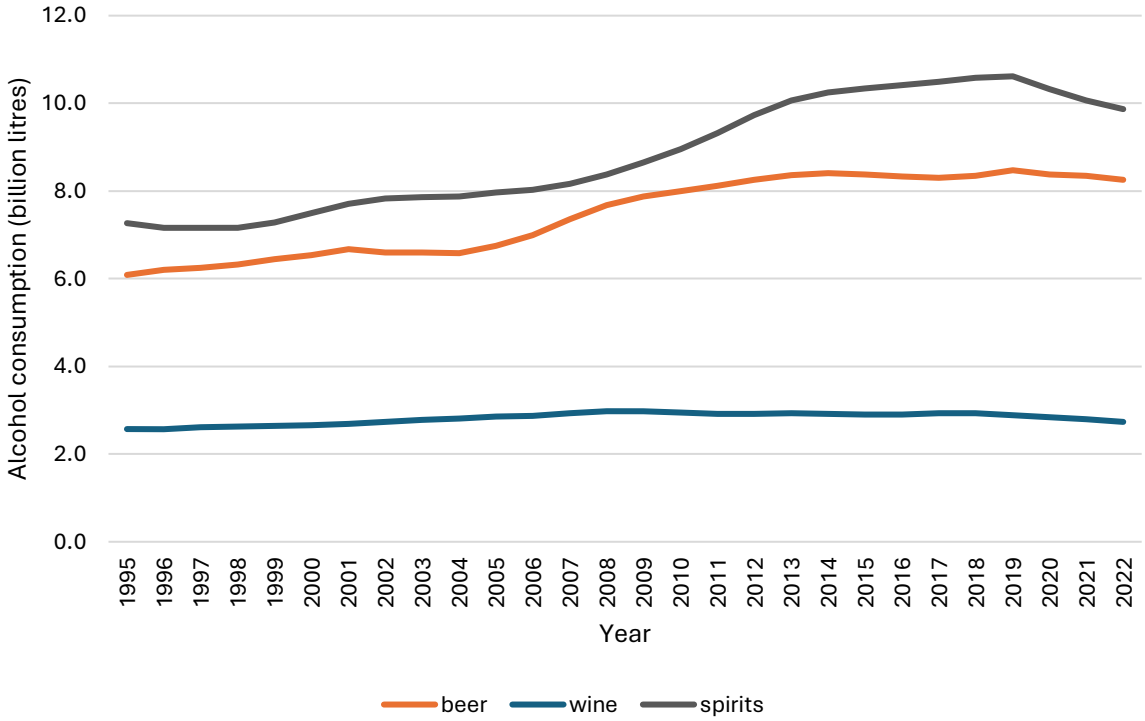

Figure 8: Evolution of alcohol consumption by beverage type since 1995.

Notes: Based on 3-year moving averages computed using data from Anderson & Pinilla (2024). The definition of spirits in Anderson & Pinilla (2024) is broader than that in this article. It includes other alcoholic beverage categories that we do not include in the spirits category.

Figure 9 shows the value of international trade for the main alcoholic beverages, as well as for water and grape must. Still bottled wine is the most traded alcoholic beverage type by value. Wine accounts for 36% of the value and 22% of the quantity of all traded alcoholic beverages, compared with 45% and 40% for spirits, or 16% and 35% for beer.

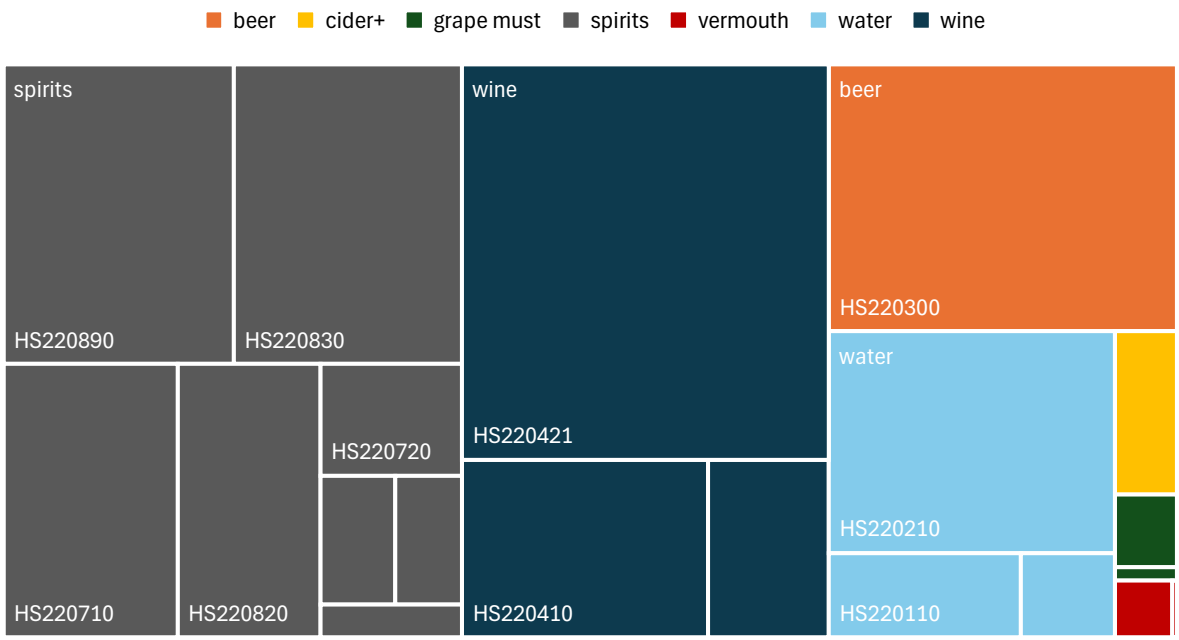

Figure 9: Beverages' traded shares by value.

Notes: Average values between 2017 and 2022. Table 1 provides the HS code descriptions.

Looking only at the trade of wine underestimates the importance of the grape and wine industry in global beverage trade. Adding vermouth and spirits made by distilling grapes, the grape and wine industry adds another 8% to the traded value of wine-related beverages. That is probably an understatement given that other spirits are also made of wine. The traded value of spirits made from grapes is 2.6 times higher than in the mid-1990s, while the traded value of vermouth has doubled.

Vermouth and (especially) spirits made from grapes play a huge role in decreasing the oversupply of wine occasionally in some countries. More grapes are needed for making one litre of these products than for making one litre of wine.

As well, some non-alcoholic products play a big role in decreasing oversupplies of wine. One of these products is vinegar. The quantity of vinegar traded is equivalent to more than two-thirds that of sparkling wine. Vinegar trade has increased more than four times in quantity and six times in value since the mid-1990s.

Grape must is another non-alcoholic product that is relevant in decreasing wine oversupply. The quantity of grape must traded is equivalent to three-quarters that of sparkling wine. A small part of this grape must is used for making wine; the rest is for industrial uses. Further, much of the grape must traded is concentrated, meaning that the volume of grapes used for making this product is substantially higher than for wine — although it is difficult to quantify it given that the average sugar concentration of the grape must is not reported in the trade data. Spain is the main exporter of concentrated grape juice, with Argentina, Chile, Italy, and the United States also exporting considerable amounts. Indeed, Argentina often exports a higher equivalent of grapes as concentrated grape juice than as wine.

5. Conclusion

Wine exports are dominated by France, Italy, and Spain. The United States and the United Kingdom are the main wine importers. There is a high degree of intra-industry trade even though most of the main wine exporters are solid net exporters. The exceptions are the United States and Germany; they are net importers with relatively low indexes of revealed comparative advantage in wine exports.

Our novel export concentration indexes suggest wine exports from most major countries are not very concentrated, but sudden trade disruptions can still hurt these countries. The multivariate statistical analyses based on our (also) novel similarity indexes imply that most major wine exporters have similar markets, while geographic proximity is often related to a more similar mix of countries from which they import wine.

Since the mid-1990s, the value of wine traded has increased similarly to that of spirits and beer, even though the increase in the quantity of wine traded has occurred at a slower pace. This change in wine demand is adding additional pressure to produce higher-quality wine, something that climate change is making harder in some of the world's most important wine regions. This change may also lead to a higher oversupply of lower-quality wines. The trade in spirits made of grape, vermouth, vinegar, and grape must can keep contributing towards mitigating oversupply issues.

Our indexes and statistical analyses allow us to summarise large volumes of bilateral trade data that would otherwise be difficult to understand using raw data. However, since the data in our database are aggregated, these data do not allow us to uncover some relationships that may only be evident when analysing trade data at the regional or firm levels.

Further research could look at the implications of potential premiumisation in the global wine markets and the role of trade in decreasing oversupplies of wine in some countries. Grape products other than wine have received little attention in the economics literature. Indeed, we are not aware of any scientific international trade study focused on vermouth, vinegar, or concentrated grape must. Our database could be used for such analyses. It could be used for many other purposes, including expanding and updating the Global Beverage Markets Model. It could also be combined with other databases showing the evolution of beverage consumption — as we have done to a low degree using data from Anderson & Pinilla (2024).

This database will be updated every year and may be improved to better account for re-exports. Policymakers and wine business managers are welcome to use these databases to get useful insights based on their needs. After all, this article provides only an overall picture of global wine trade in the context of other beverages.

References

Anderson, J. E., & van Wincoop, E. (2004). Trade Costs. *Journal of Economic Literature*, 42(3), 691–751. https://doi.org/10.1257/0022051042177649

Anderson, K. (2024). Globalisation and national commodity cycles: The case of wine in Australia. *The World Economy*. https://doi.org/10.1111/twec.13650

Anderson, K., Francois, J., Nelson, D., & Wittwer, G. (2016). Intra-industry Trade in a Rapidly Globalizing Industry: The Case of Wine. *Review of International Economics*, *24*(4), 820-836. https://doi.org/10.1111/roie.12239

Anderson, K., & Nelgen, S. (2020). *Database of Regional, National and Global Winegrape Bearing Areas by Variety, 1960 to 2016*. Wine Economics Research Centre, University of Adelaide. https://economics.adelaide.edu.au/wine-economics/databases

Anderson, K., & Pinilla, V. (2021). Wine's belated globalization, 1845–2025. *Applied Economic Perspectives and Policy*, *44*(2), 742-765. https://doi.org/10.1002/aepp.13174

Anderson, K., & Pinilla, V. (2024). *Annual Database of Global Wine Markets, 1835 to 2023*. Wine Economics Research Centre, University of Adelaide. https://economics.adelaide.edu.au/wine-economics/databases

Anderson, K., & Puga, G. (2024). *Global Bilateral Beverages Trade Database from 1995*. Wine Economics Research Centre, University of Adelaide. https://economics.adelaide.edu.au/wine-economics/databases

Anderson, K., & Wittwer, G. (2019). Modeling Global Wine Markets to 2018: Exchange Rates, Taste Changes, and China's Import Growth. *World Scientific, 73*. https://doi.org/10.1142/9789811202094_0003

Anderson, K., & Wittwer, G. (2025). Impacts of a US-led Tariff War on International Trade in Wine, Beer and Spirits. WERC Working Paper 2025-04, University of Adelaide. Forthcoming in the *Journal of Wine Economics*.

Ayuda, M.-I., Ferrer-Pérez, H., & Pinilla, V. (2020). Explaining World Wine Exports in the First Wave of Globalization, 1848–1938. *Journal of Wine Economics*, *15*(3), 263-283. https://doi.org/10.1017/jwe.2020.4

Bargain, O., Cardebat, J. M., & Chiappini, R. (2022). Trade uncorked: Genetic distance and taste-related barriers in wine trade. *American Journal of Agricultural Economics*, *105*(2), 674-708. https://doi.org/10.1111/ajae.12335

Cardebat, J.-M. (2024). Evolution of French Wine Companies in the Global Landscape. In Wine Management and Marketing, Volume 2 : Responses of the Industry to Crises and New Expectations. John Wiley & Sons, Incorporated,. https://doi.org/10.1002/9781394302208

Carrasco, I., Castillo-Valero, J. S., Carchano, M., & Corcoles, C. (2023). Recent evolution of wine exports in a turbulence period: a multiregional input-output analysis. *Agricultural and Food Economics*, *11*(1), 6. https://doi.org/10.1186/s40100-023-00248-9

Castillo, J. S., Villanueva, E. C., & García-Cortijo, M. C. (2016). The International Wine Trade and Its New Export Dynamics (1988–2012): A Gravity Model Approach. *Agribusiness*, *32*(4), 466-481. https://doi.org/10.1002/agr.21463

Dal Bianco, A., Boatto, V. L., Caracciolo, F., & Santeramo, F. G. (2016). Tariffs and non-tariff frictions in the world wine trade. *European Review of Agricultural Economics*, *43*(1), 31-57. https://doi.org/10.1093/erae/jbv008

del Rey, R., & Loose, S. (2023). State of the international wine market in 2022: New market trends for wines require new strategies. *Wine Economics and Policy, 12*(1), 3–18. https://doi.org/10.36253/wep-14758

Gaulier, G., & Zignago, S. (2010). BACI: International Trade Database at the Product-Level. The 1994-2007 Version. In. St. Louis: Federal Reserve Bank of St. Louis.

Hunter, P. R., & Gaston, M. A. (1988). Numerical index of the discriminatory ability of typing systems: an application of Simpson's index of diversity. *Journal of Clinical Microbiology*, *26*(11), 2465-2466. https://doi.org/10.1128/JCM.26.11.2465-2466.1988

Krugman, P. (1980). Scale Economies, Product Differentiation, and the Pattern of Trade. *American Economic Review, 70*(5), 950–959.

Laakso, M., & Taagepera, R. (1979). "Effective" Number of Parties: A Measure with Application to West Europe. *Comparative Political Studies*, *12*(1), 3-27. https://doi.org/10.1177/001041407901200101

Labys, W. C., & Cohen, B. C. (2006). Trends versus cycles in global wine export shares. *Australian Journal of Agricultural and Resource Economics*, *50*(4), 527-537. https://doi.org/10.1111/j.1467-8489.2006.00344.x

Macedo, A., Rebelo, J., & Gouveia, S. (2023). The impact of COVID-19 government policy on the international wine trade. *Agricultural and Food Economics*, *11*(1). https://doi.org/10.1186/s40100-023-00276-5

Melitz, M. J. (2003). The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity. *Econometrica, 71*(6), 1695–1725. https://doi.org/10.1111/1468-0262.00467

Meloni, G., & Swinnen, J. (2018a). The political economy of regulations and trade: Wine trade 1860–1970. *The World Economy*, *41*(6), 1567-1595. https://doi.org/10.1111/twec.12655

Meloni, G., & Swinnen, J. (2018b). Trade and terroir. The political economy of the world's first geographical indications. *Food Policy*, *81*, 1-20. https://doi.org/10.1016/j.foodpol.2018.10.003

Puga, G., & Anderson, K. (2023). Concentrations and Similarities across Countries in the Mix of Winegrape Cultivars. *American Journal of Enology and Viticulture*, *74*(1). https://doi.org/10.5344/ajev.2023.22067

Puga, G., Anderson, K., Jones, G., Doko Tchatoka, F., & Umberger, W. (2022). A climatic classification of the world's wine regions. *OENO One*, *56*(2), 165-177. https://doi.org/10.20870/oeno-one.2022.56.2.4627

Puga, G., Sharafeyeva, A., & Anderson, K. (2022). Explaining bilateral patterns of global wine trade, 1962–2019. *Journal of Wine Economics*, *17*(4), 338-344. https://doi.org/10.1017/jwe.2022.43

Ridley, W., Luckstead, J., & Devadoss, S. (2022). Wine: The punching bag in trade retaliation. *Food Policy*, *109*. https://doi.org/10.1016/j.foodpol.2022.102250

Santos, J. A., Fraga, H., Malheiro, A. C., Moutinho-Pereira, J., Dinis, L.-T., Correia, C., Moriondo, M., Leolini, L., Dibari, C., Costafreda-Aumedes, S., Kartschall, T., Menz, C., Molitor, D., Junk, J., Beyer, M., & Schultz, H. R. (2020). A Review of the Potential Climate Change Impacts and Adaptation Options for European Viticulture. *Applied Sciences*, *10*(9). https://doi.org/10.3390/app10093092

Simpson, E. H. (1949). Measurement of Diversity. *Nature*, *163*(4148), 688-688. https://doi.org/10.1038/163688a0

van Leeuwen, C., Sgubin, G., Bois, B., Ollat, N., Swingedouw, D., Zito, S., & Gambetta, G. A. (2024). Climate change impacts and adaptations of wine production. *Nature Reviews Earth & Environment*, *5*(4), 258-275. https://doi.org/10.1038/s43017-024-00521-5

Wittwer, G., & Anderson, K. (2020). A Model of Global Beverage Markets. *Journal of Wine Economics*, *15*(3), 330-354. https://doi.org/10.1017/jwe.2020.17

Wittwer, G., & Anderson, K. (2021). COVID-19 and Global Beverage Markets: Implications for Wine. *Journal of Wine Economics*, *16*(2), 117-130. https://doi.org/10.1017/jwe.2021.13

Supplementary Material

Supplementary table 1: ISO3 codes and names of the databases' countries, and group/s of countries to which they belong.

ISO3	Name	EU27/NW8	Region
AFG	Afghanistan		OAME
ALB	Albania		OECA
DZA	Algeria		AME
ASM	American Samoa		OAPA
AND	Andorra		OWEM
AGO	Angola		OAME
AIA	Anguilla		OLAC
ATG	Antigua and Barbuda		OLAC
ARG	Argentina	NW8	LAC
ARM	Armenia		ECA
ABW	Aruba		OLAC
AUS	Australia	NW8	ANZ
AUT	Austria	EU27	WEM
AZE	Azerbaijan		ECA
BHS	Bahamas		OLAC
BHR	Bahrain		OAME
BGD	Bangladesh		OAPA
BRB	Barbados		OLAC
BLR	Belarus		ECA
BEL	Belgium	EU27	WEM
BEL	Belgium-Luxembourg (...1998)		WEM
BLZ	Belize		OLAC
BEN	Benin		OAME
BMU	Bermuda		OLAC
BTN	Bhutan		OAPA
BOL	Bolivia (Plurinational State of)		LAC
BES	Bonaire		OLAC
BIH	Bosnia Herzegovina		ECA
BWA	Botswana		OAME
IOT	Br. Indian Ocean Terr.		OAPA
VGB	Br. Virgin Isds		OLAC
BRA	Brazil		LAC
BRN	Brunei Darussalam		OAPA
BGR	Bulgaria	EU27	ECA
BFA	Burkina Faso		OAME
BDI	Burundi		OAME
CIV	C√¥te d'Ivoire		OAME
CPV	Cabo Verde		OAME
KHM	Cambodia		OAPA
CMR	Cameroon		AME
CAN	Canada	NW8	USC
CYM	Cayman Isds		OLAC
CAF	Central African Rep.		OAME
TCD	Chad		OAME
CHL	Chile	NW8	LAC

ISO3	Name	EU27/NW8	Region
CHN	China		APA
HKG	China, Hong Kong SAR		APA
MAC	China, Macao SAR		OAPA
CXR	Christmas Isds		OAPA
CCK	Cocos Isds		OAPA
COL	Colombia		LAC
COM	Comoros		OAME
COG	Congo		OAME
COK	Cook Isds		OAPA
CRI	Costa Rica		LAC
HRV	Croatia	EU27	ECA
CUB	Cuba		OLAC
CUW	Cura√ßao		OLAC
CYP	Cyprus	EU27	WEM
CZE	Czechia	EU27	ECA
CSK	Czechoslovakia (...1992)		ECA
PRK	Dem. People's Rep. of Korea		OAPA
DDR	Dem. Rep. of Germany (...1990)		WEM
COD	Dem. Rep. of the Congo		OAME
DNK	Denmark	EU27	WEM
DJI	Djibouti		OAME
DMA	Dominica		OLAC
DOM	Dominican Rep.		LAC
ECU	Ecuador		LAC
EGY	Egypt		AME
SLV	El Salvador		OLAC
GNQ	Equatorial Guinea		OAME
ERI	Eritrea		OAME
EST	Estonia	EU27	ECA
SWZ	Eswatini		OAME
ETH	Ethiopia		AME
R20	Europe EFTA, nes		OECA
FLK	Falkland Isds (Malvinas)		OLAC
DEU	Fed. Rep. of Germany (...1990)		WEM
FJI	Fiji		OAPA
FIN	Finland	EU27	WEM
ATF	Fr. South Antarctic Terr.		OAME
FRA	France	EU27	WEX
PYF	French Polynesia		OAPA
FSM	FS Micronesia		OAPA
GAB	Gabon		OAME
GMB	Gambia		OAME
GEO	Georgia		ECA
DEU	Germany	EU27	WEM
GHA	Ghana		OAME
GIB	Gibraltar		OWEM
GRC	Greece	EU27	WEM
GRL	Greenland		OWEM
GRD	Grenada		OLAC

ISO3	Name	EU27/NW8	Region
GUM	Guam		OLAC
GTM	Guatemala		LAC
GIN	Guinea		OAME
GNB	Guinea-Bissau		OAME
GUY	Guyana		OLAC
HTI	Haiti		OLAC
HND	Honduras		OLAC
HUN	Hungary	EU27	ECA
ISL	Iceland		OWEM
IND	India		APA
IDN	Indonesia		APA
IRN	Iran		OAME
IRQ	Iraq		OAME
IRL	Ireland	EU27	WEM
ISR	Israel		AME
ITA	Italy	EU27	WEX
JAM	Jamaica		OLAC
JPN	Japan		APA
JOR	Jordan		OAME
KAZ	Kazakhstan		ECA
KEN	Kenya		AME
KIR	Kiribati		OAPA
KWT	Kuwait		OAME
KGZ	Kyrgyzstan		OECA
LAO	Lao People's Dem. Rep.		OAPA
LVA	Latvia	EU27	ECA
LBN	Lebanon		OAME
LSO	Lesotho		OAME
LBR	Liberia		OAME
LBY	Libya		OAME
LTU	Lithuania	EU27	ECA
LUX	Luxembourg	EU27	WEM
MDG	Madagascar		OAME
MWI	Malawi		OAME
MYS	Malaysia		APA
MDV	Maldives		OAPA
MLI	Mali		OAME
MLT	Malta	EU27	WEM
MHL	Marshall Isds		OAPA
MRT	Mauritania		OAME
MUS	Mauritius		OAME
MYT	Mayotte (Overseas France)		OAME
MEX	Mexico		LAC
MNG	Mongolia		OAPA
MNE	Montenegro		OECA
MSR	Montserrat		OLAC
MAR	Morocco		AME
MOZ	Mozambique		OAME
MMR	Myanmar		OAPA

ISO3	Name	EU27/NW8	Region
MNP	N. Mariana Isds		OAPA
NAM	Namibia		OAME
NRU	Nauru		OAPA
NPL	Nepal		OAPA
NLD	Netherlands	EU27	WEM
ANT	Netherlands Antilles (...2010)		OLAC
NCL	New Caledonia		OAPA
NZL	New Zealand	NW8	ANZ
NIC	Nicaragua		OLAC
NER	Niger		OAME
NGA	Nigeria		AME
NIU	Niue		OAPA
NFK	Norfolk Isds		OAPA
MKD	North Macedonia		ECA
NOR	Norway		WEM
OMN	Oman		OAME
PAK	Pakistan		OAPA
PLW	Palau		OAPA
PAN	Panama		OLAC
PNG	Papua New Guinea		OAPA
PRY	Paraguay		OLAC
PER	Peru		LAC
PHL	Philippines		APA
PCN	Pitcairn		OAPA
POL	Poland	EU27	ECA
PRT	Portugal	EU27	WEX
QAT	Qatar		OAME
KOR	Rep. of Korea		APA
MDA	Rep. of Moldova		ECA
ROU	Romania	EU27	ECA
RUS	Russian Federation		ECA
RWA	Rwanda		OAME
BLM	Saint Barth√©lemy		OLAC
SHN	Saint Helena		OAME
KNA	Saint Kitts and Nevis		OLAC
LCA	Saint Lucia		OLAC
SXM	Saint Maarten		OLAC
SPM	Saint Pierre and Miquelon		OLAC
VCT	Saint Vincent and the Grenadines		OLAC
WSM	Samoa		OAPA
SMR	San Marino		OAPA
STP	Sao Tome and Principe		OAME
SAU	Saudi Arabia		OAME
SEN	Senegal		OAME
SRB	Serbia		ECA
SCG	Serbia and Montenegro (...2005)		OECA
SYC	Seychelles		OAME
SLE	Sierra Leone		OAME
SGP	Singapore		APA

ISO3	Name	EU27/NW8	Region
SVK	Slovakia	EU27	ECA
SVN	Slovenia	EU27	ECA
SLB	Solomon Isds		OAPA
SOM	Somalia		OAME
ZAF	South Africa	NW8	AME
SSD	South Sudan		OAME
ZA1	Southern African Customs Union (...1999)		OAME
ESP	Spain	EU27	WEX
LKA	Sri Lanka		APA
PSE	State of Palestine		OAME
SDN	Sudan		OAME
SDN	Sudan (...2011)		OAME
SUR	Suriname		OLAC
SWE	Sweden	EU27	WEM
CHE	Switzerland		WEM
SYR	Syria		OAME
TUR	T√ºrkiye		WEM
TWN	Taiwan		APA
TJK	Tajikistan		OECA
THA	Thailand		APA
TLS	Timor-Leste		OAPA
TGO	Togo		OAME
TKL	Tokelau		OAPA
TON	Tonga		OAPA
TTO	Trinidad and Tobago		OLAC
TUN	Tunisia		AME
TKM	Turkmenistan		OECA
TCA	Turks and Caicos Isds		OLAC
TUV	Tuvalu		OAPA
UGA	Uganda		OAME
UKR	Ukraine		ECA
ARE	United Arab Emirates		AME
GBR	United Kingdom		WEM
TZA	United Rep. of Tanzania		OAME
URY	Uruguay	NW8	LAC
PUS	US Misc. Pacific Isds		OAPA
USA	USA	NW8	USC
SUN	USSR (...1990)		OAPA
UZB	Uzbekistan		ECA
VUT	Vanuatu		OAPA
VEN	Venezuela		LAC
VNM	Other Latin America and Caribbean (OLAC)nam		APA
WLF	Wallis and Futuna Isds		OAPA
YEM	Yemen		OAME
ZMB	Zambia		OAME
ZWE	Zimbabwe		OAME

Notes: EU27 stands for European Union members as of April 2024. NW8 are eight important New World wine exporters. Each country is classified as either Western European key wine net exporters (WEX), other Western European

mainly wine net importers (WEM), Eastern Europe and Central Asia (ECA), Australia and New Zealand (ANZ), United States and Canada (USC), Latin America and Caribbean (LAC), Africa and Middle East (AME), NE, SE, and South Asia and Pacific Islands (APA), other Western European wine net importers (OWEM), other Eastern Europe and Central Asia (OECA), other Latin America and Caribbean (OLAC), other Africa and Middle East (OAME), and other Asia and Pacific Islands (OAPA).