FGV EUROPE PROJETOS

THE BRAZILIAN BEER AND WINE INDUSTRY AND ITS INTERACTIONS WITH INTERNATIONAL TRADE

anufood brazil

FGV EUROPE PROJETOS

THE BRAZILIAN BEER AND WINE INDUSTRY AND ITS INTERACTIONS WITH INTERNATIONAL TRADE

anufood brazil

Headquarters
Praia de Botafogo, 190, Rio de Janeiro – RJ, CEP 22250-900 ou Caixa Postal 62.591
CEP 22257-970, Tel: (21) 3799-5498, www.fgv.br

Institution of technical-scientific, educational and philanthropic character, created on December 20th, 1944, as a legal entity of private law with the objective to act, broadly, in all subjects of scientific character, with emphasis on social sciences: administration, law and economics, contributing for the socioeconomical development of the country.

FGV PROJETOS

Executive Director
Cesar Cunha Campos

Technical Director
Ricardo Simonsen

Project Director
Sidnei Gonzalez

CREDITS

Technical Team
Evandro Faulin
Felippe Serigati
Talita Priscila Pinto

Editorial Coordination
Manuela Fantinato

Design Coordination
Patricia Werner

Editorial Production
Talita Marçal

Graphic Design
Julia Travassos

Translation
Rodrigo Rudge Ramos Ribeiro

Proofreading
Sara Pais

Layout
Café.art.br

Photos
www.shutterstock.com

This issue is avaiable for download at FGV Projetos' website: www.fgv.br/fgvprojetos

INDEX

EXECUTIVE SUMMARY

Among the main Brazilian industrial segments, the food and beverage industry is far the largest. According to the Brazilian Association of Food Industries[1] (ABIA), in 2017, the food and beverage industry had total revenue of R$ 642.6 billion. Of this amount, 81% was generated in food production and 19% in beverages manufactoring. In addition, this industrial segment includes a contingent of 35.6 thousand companies and generating directly jobs for more than 1.6 million people.

This report is part of the series of studies on the Brazilian agroindustry of FGV Projetos. While several agroindustrial chains have already been mapped in previous editions, the present study focuses on the last great chain not yet detailed: the agroindustry of alcoholic beverages. According to ABIA[2], in 2017, alcoholic beverages accounted for 46.7% (R$ 57.0 billion) of all national beverage industry revenues (R$ 122.1 billion).

Still according to ABIA, the Brazilian alcoholic beverage industry can be divided into three main categories: cachaça, beer and wine. Among these three main products, beer is the most consumed drink in the country; for example, in 2015, beer was responsable for almost 70% of the consumption[3] (in volume) of alcoholic beverages in Brazil. According to the Brazilian Beer Industry Association[4] (CervBrasil), in 2016, only the beer production chain mobilized around 12 thousand suppliers of goods and services and around 8 million professionals from different areas. Throughout the process, several sectors were involved: civil construction, transportation, energy, vehicles, pulp and paper, aluminum and glass, among others, involving more than 1 million small and medium-sized companies and reaching around 99% of the country's homes.

In order to present an overview of the Brazilian beer and wine industry, secondary data were used, from the primary production of the sector, through industrial production to the foreign market.

1 Available at: https://www.abia.org.br/vsn/tmp_1.aspx?id=32

2 Available at: https://www.abia.org.br/vsn/tmp_1.aspx?id=32

3 Available at: https://www.euromonitor.com/alcoholic-drinks-in-brazil/report

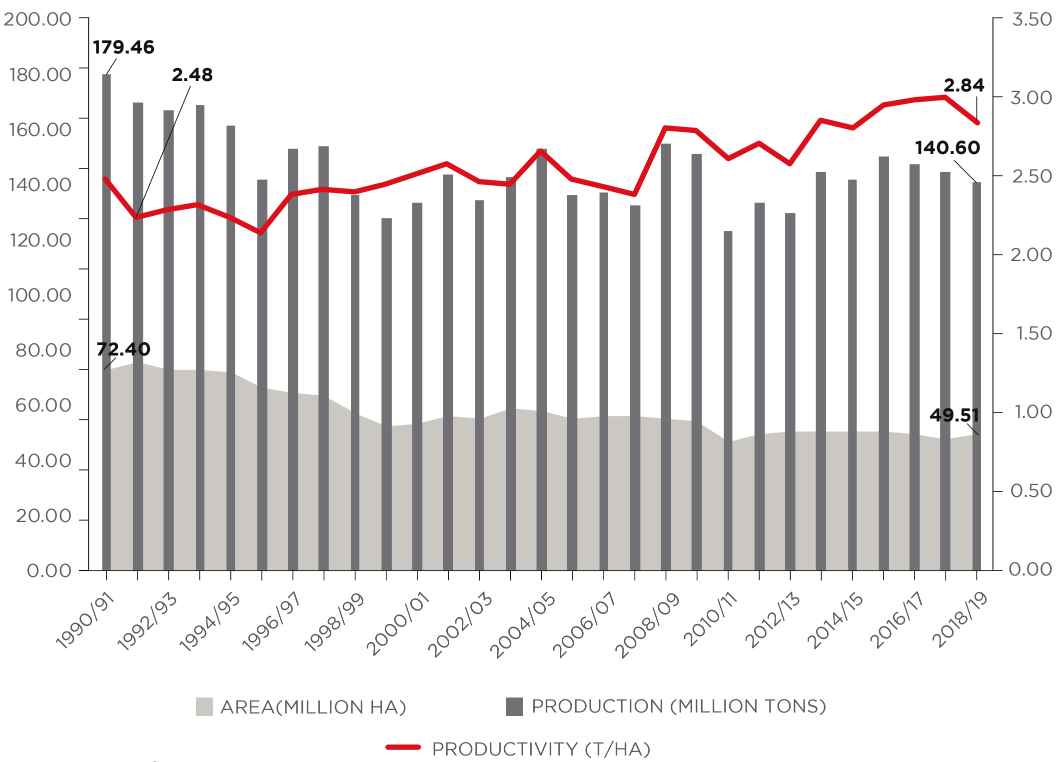
4 Available at: http://www.cervbrasil.org.br/novo_site/

PRIMARY BEER PRODUCTION: BRAZIL EACH TIME CLOSER OF BARLEY SELF-SUFFICIENCY

Barley is one of the main cereals produced in the world, it is typically a winter crop and the production is more concentrated in the European Union and Russia. Artificial germination[5] of the grain gives rise to the malt, which is used for brewing. In 2018, the grain production was present in more than 50 countries worldwide and reached a volume of more than 140 million tons. All this volume came from a harvested area of more than 49 million hectares, allowing the crop to reach, on average, the harvested productivity of 2.84 tons per hectare.

Graph I

GLOBAL EVOLUTION OF PRODUCTION, PRODUCTIVITY AND HARVESTED AREA OF BARLEY BETWEEN 1990 AND 2018 (MILLIONS OF TONS, TONS / HECTARE AND MILLIONS OF HECTARES)



Source: USDA[6].

5 Artificial germination of barley is the process in which water is added to the grain to cause a controlled germination with optimum temperature. After reaching the point, the process is interrupted and the malt is dried, thus brewing the malt. This is how malt is included in the brewing process.

6 Available at: https://apps.fas.usda.gov/psdonline/app/index.html#/app/advQuery

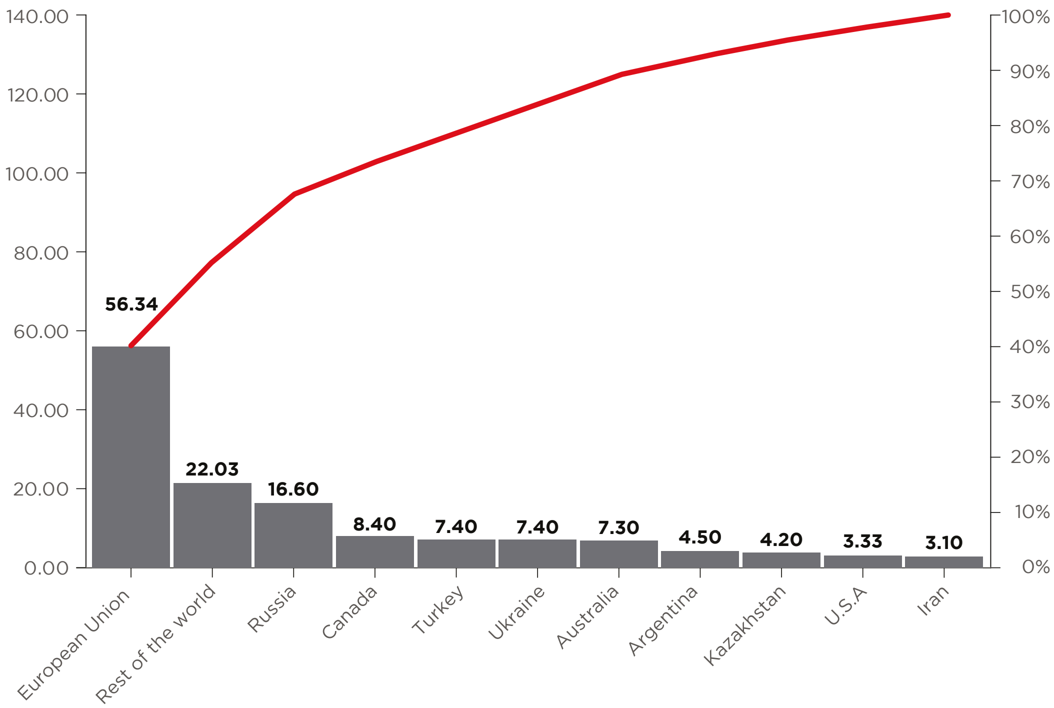
The performance in 2018 shows that barley production has been relatively stable compared with developments since the mid-1990s, specifically since 1995, when 141.17 million tons of grain were produced. The record volume for the period, 179.46 million tons, was produced in the 1990 harvest and reduced until the 1995 harvest. Thereafter, the average volume remained at the household of 140 million tons produced per year, with a maximum production of 155.05 million in 2008 and a minimum around 122.71 million in 2010.

The harvested area from barley also has reduced in the early 1990s, from 72.40 million hectares harvested in 1990 to 66.38 in 1995. However, unlike production, the area used did not stabilize over the following decades and continues to reduce gradually. Between 1990 and 2018, there was a cumulative reduction of 31.62%, representing an average decline of 1.30% per year.

The stabilization of production levels, together with the reduction of harvested area, indicates that barley cultivation, in general, has become more productive over the years. Between 1990 and 2018, there was a 14.52% increase in cereal productivity, which means an average growth of 0.47% per year. While in 1990 harvested 2.48 tons of barley per hectare, in 2018 this value reached 2.84 tons. Countries such as Chile, New Zealand and Switzerland lead the grain productivity ranking in 2018, having harvested over 6 tons per hectare. Among the main world producers are the European Union, Russia, Canada, Turkey, Ukraine, Australia, Argentina, Kazakhstan, the United States and Iran, showing how much cereal production is dispersed.

Graph II

GLOBAL BARLEY PRODUCTION IN 2018 (MILLION TONS)



Source: USDA[7].

Brazil is only the 29th world producer of barley and, according to Embrapa Wheat[8], the expansion of this crop is relatively recent in the country. In addition, this expansion it is linked to the brewing industry initiative, which encouraged domestic production to guarantee supply, and the increase in the foreign product in the 1970s. The observed evolution between 1990 and 2018 was possible, according to Embrapa, due to the:

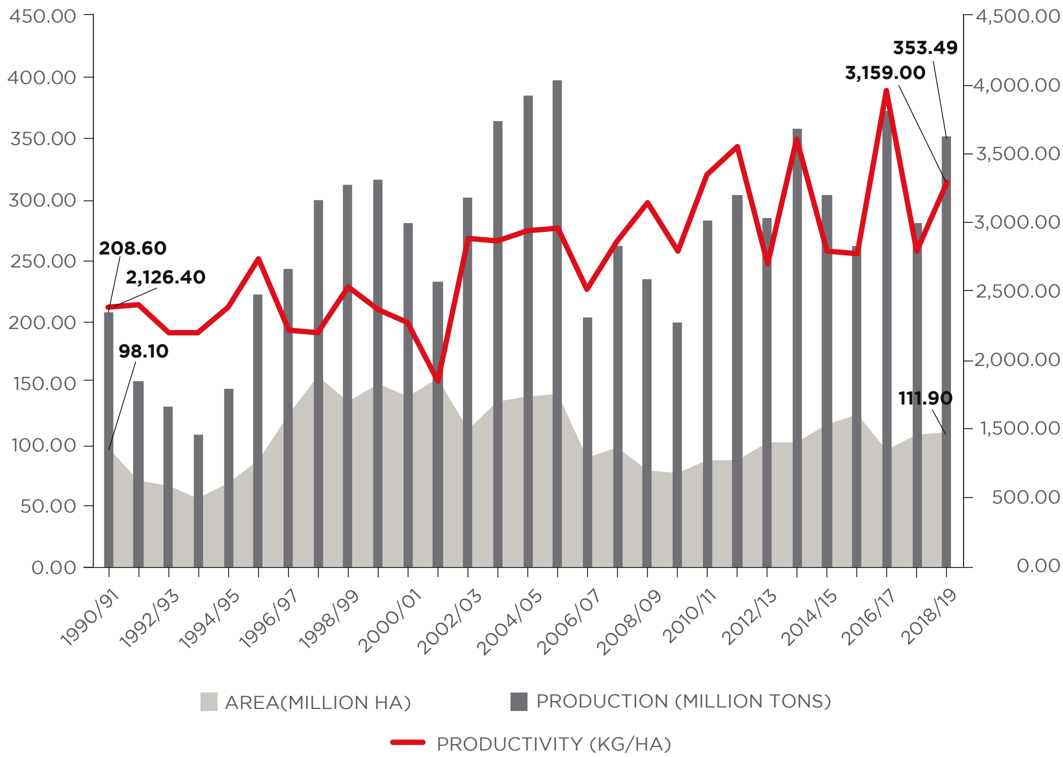
7 Available at: https://apps.fas.usda.gov/psdonline/app/index.html#/app/advQuery

8 Available at: http://www.cnpt.embrapa.br/biblio/do/p_do139_4.htm

- To official incentive for the construction of malts from the mid-70's, which made possible the expansion of internal malting and grain storage capacity;
- To financing and guaranteeing production prices; and
- Finally, the intensification and diversification of the research developed by Embrapa itself. This effort enabled adapted cultivars and development of management techniques appropriate to local climate and soil conditions.

Graph III

BRAZILIAN EVOLUTION OF PRODUCTION, PRODUCTIVITY AND HARVESTED AREA OF BARLEY BETWEEN THE 1990 AND 2018 (THOUSAND TONS, KG/HA AND THOUSAND HA)



Source: Conab[9].

9 Available at: https://www.conab.gov.br/info-agro/safras/serie-historica-das-safras

Between 1990 and 1995 the production oscillated above one hundred thousand tons. From then on, it reached 200 thousand tons and increased until 2005, a year in which the record harvest of almost 400 thousand tons was reached. Although the good performance observed in 2005, the 2006 harvest produced a volume of 48.47% lower than the previous one. According to the IBGE[10], this decline occurred due to the reduction of the planted area, motivated by the low prices obtained with the previous harvest. After 2010, production has grown again and reached a volume of 353 thousand tons in 2018.

For the period from 2006 to 2018, the harvested area moderately growth, rising from 90 thousand to around 112 thousand hectares, representing an accumulated growth of 24.33%. For the same period, production growth 71.76%. According to Embrapa[11], output growth is explained by the increase of about 38.13% of productivity, which reached its peak in 2016, with 3,92 tons per hectare.

Brazilian production is totally concentrated in the southern states of the country, basically in Paraná and Rio Grande do Sul. Regarding the 2018 harvest, Paraná and Rio Grande do Sul occupied practically the same area with barley planting, about 55 thousant tons, however, the state of Paraná was more productive, responsable for about 62% of production, while Rio Grande do Sul had 37.4%.

In terms of production yields, between 2015 and 2017, barley presented a negative profit only in 2016, a year in which production was high and there was a greater supply of cereal in the market. Already for the other years, 2015 and 2017, there was positive profit.

10

11

Table I

AVERAGE PROFIT YIELD PER HECTARE FOR THE BARLEY PRODUCED IN THE STATE OF PARANÁ BETWEEN 2015 AND 2017 (R$/HA)

	AVERAGE INCOME	AVERAGE COSTS	PROFIT
2015	R$ 674.95	R$ 591.33	R$ 83.62
2016	R$ 650.03	R$ 655.50	R$ -5.47
2017	R$ 880.11	R$ 818.00	R$ 62.11

Source: IBGE[12], Conab[13].

PRIMARY WINE PRODUCTION: RIO GRANDE DO SUL IS WITH THE PROTAGONISM OF THE NATIONAL MARKET

Brazil with its climatic diversity typical of a continental country managed to reach a completely original wine-growing. According to the Brazilian Wine Institute[14] (IBRAVIN), the process of European immigration, combined with investment in innovation, resulted in grapes that made possible a drink with a unique personality.

The area of wine production in Brazil currently amounts to 79.90 thousand hectares. There are more than 1,100 wineries scattered throughout the country, most of them installed in small properties (average of 2 hectares of vineyards per family). Although present in several Brazilian states and regions, production is concentrated in a few federation units. Approximately 90% of the national production is concentrated in Rio Grande do Sul, it is mainly destined to the juice and wine industry and is basically produced by small farmers. In recent years, according to Embrapa[15], there has been the implementation of Geographical Indications in Brazil, in this way viticulture has contributed to the development of the territories involved, promoting aggregation of value to products and appreciation of their respective natural inputs.

12 Available at: https://cidades.ibge.gov.br/brasil/rs/pesquisa/14/10193

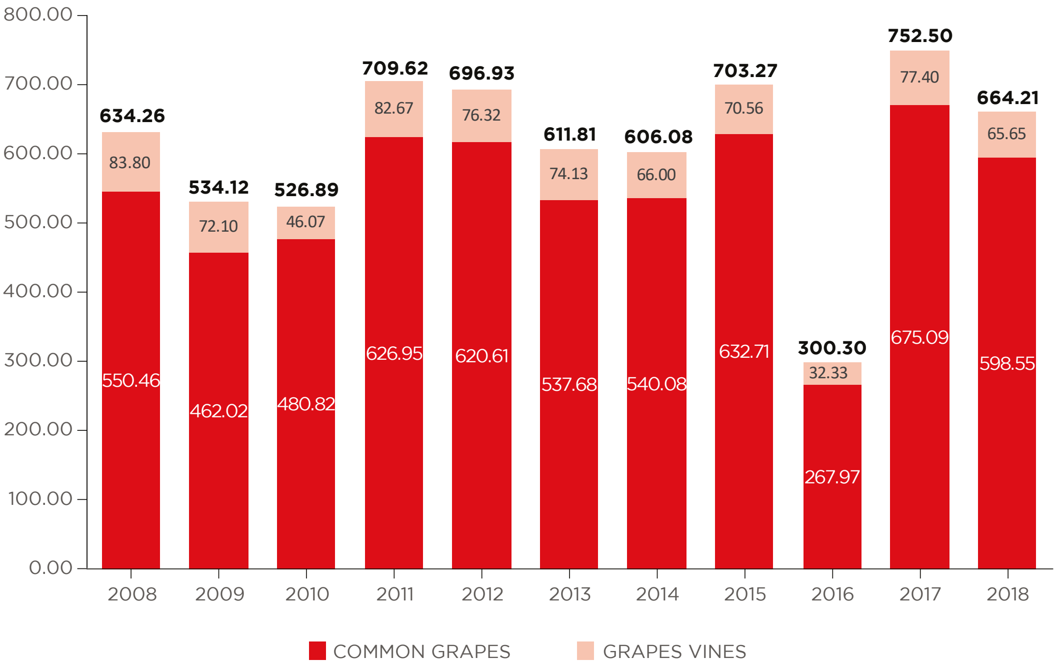
13 Available at: https://www.conab.gov.br/info-agro/custos-de-producao/planilhas-de-custo-de-producao

14 Available at: https://www.ibravin.org.br

15 Available at: https://www.embrapa.br/busca-de-noticias/-/noticia/9952204/artigo-desempenho-da-vitivinicultura-brasileira-em-2015

Graph IV

EVOLUTION OF GRAPE PRODUCTION IN THE STATE OF RIO GRANDE DO SUL BETWEEN 2008 AND 2018 (THOUSAND TONS)



Source: Secretariat of Agriculture of Rio Grande do Sul[16].

Analyzing the Rio Grande do Sul grape production between 2008 and 2018, it is possible to observe that there was a strong decline in the 2016 harvest. In that year, the total production reached little more than 300 thousand tons, including grapes (more bitter and mainly for the production of wine) and common (more sweet, for food consumption and the production of softer wines). According with Embrapa[17], this has been one of the most difficult harvests for the sector in recent years. Climatic events such as frost and excessive rainfall contributed to the whole state being affected, compromising the productivity of the vineyards.

16 Available at: http://www.uvibra.com.br/pdf/safra_uva2008-2018.pdf

17 Available at: https://www.embrapa.br/busca-de-noticias/-/noticia/9103859/artigo-safra-da-uva-2016----o-que-esta-acontecendo

Despite the performance of 2016, the year of 2017 was one of greatest production for the analyzed period. In addition, in 2017 there was positive profit for the producers, on average the value of the production surpassed the costs, resulting in a positive profit.

Table II
AVERAGE PROFIT YIELD PER HECTARE FOR THE GRAPE PRODUCED IN THE STATE OF RIO GRANDE DO SUL IN 2017 (R$/HA)

	AVERAGE INCOME	AVERAGE COSTS	PROFIT
2017	R$1,272.15	R$1,080.00	R$192.15

Source: IBGE[18], Conab[19].

THE DOMINANCE OF BEER IN THE NATIONAL INDUSTRY OF ALCOHOLIC BEVERAGES

The alcoholic beverage industry is important in several countries in the world, including Brazil. According to the most recent IBGE[20] data, between 2005 and 2014, the country's alcoholic beverage production expanded 48.41%. This performance comes mainly from the production of beers and draft beer, which grew 56.88% in the same period. Wine production, although presenting a less expressive rate, also presented a growth of 17.41% in the period.

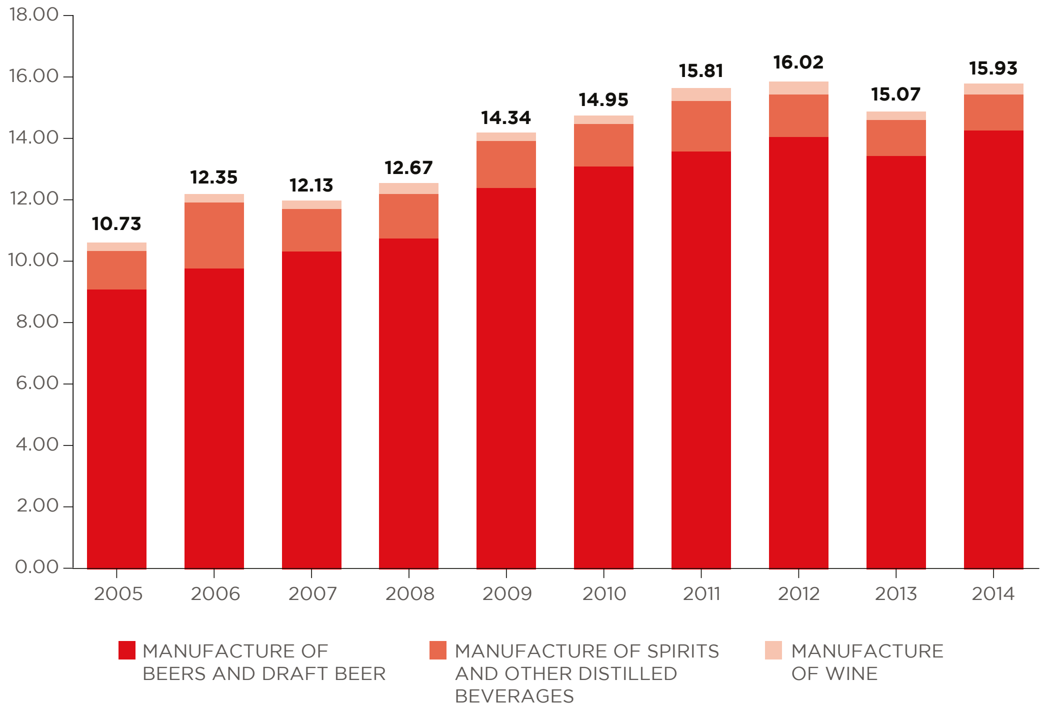
18 Available at: https://cidades.ibge.gov.br/brasil/rs/pesquisa/14/10193

19 Available at: https://www.conab.gov.br/info-agro/custos-de-producao/planilhas-de-custo-de-producao

20 Available at: https://www.economiaemdia.com.br/EconomiaEmDia/pdf/infset_industria_de_bebidas.pdf

Graph V

BRAZILIAN EVOLUTION OF PRODUCTION IN THE ALCOHOLIC BEVERAGE INDUSTRY BETWEEN 2005 AND 2014 (BILLIONS OF LITERS)



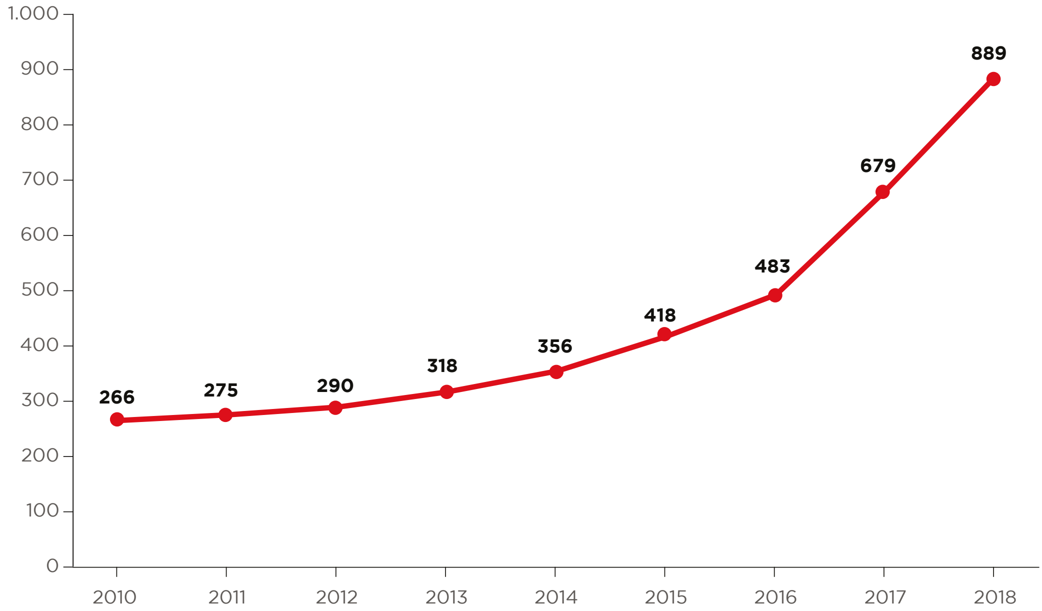
Source: IBGE[21].

In 2014, the production of beer and draft beer corresponded to 90.75% of the total volume of alcoholic beverages produced in Brazil. The participation of this sector, in addition to being the most expressive, has been growing over the years, both in volume of production and in the number of establishments producing the beverage.

21 Available at: https://sidra.ibge.gov.br

Graph VI

NUMBER OF BREWERIES IN BRAZIL BETWEEN 2010 AND 2017



Source: MAPA[22].

According to the Ministry of Livestock and Food Supply[23] (MAPA), the expansion has been boosted by the production of special beverages (premium and handmade), reflecting a change in the consumption pattern of Brazilians, who have been seeking differentiated and higher quality beverages in common brands which already existed on the market.

The increase in the number of breweries in Brazil, according to the Brazilian Association of Artisan Beer[24] (Abracerva), is related to the possibility of diversification of the beverage, which has adopted an artisan character, meeting an increasing demand of the consumer market. According to Abracerva[25], these artisanal breweries tend to be smaller, have a regional role and, although they employ a smaller number of employees in the aggregate, have generated an expansion of the number of workers in this sector in Brazil.

22 Available at: http://www.agricultura.gov.br/assuntos/inspecao/produtos-vegetal/pasta-publicacoes-DIPOV/anuario-da-cerveja-no-brasil-2018

23 Available at: http://www.agricultura.gov.br/assuntos/inspecao/produtos-vegetal/pasta-publicacoes-DIPOV/anuario-da-cerveja-no-brasil-2018

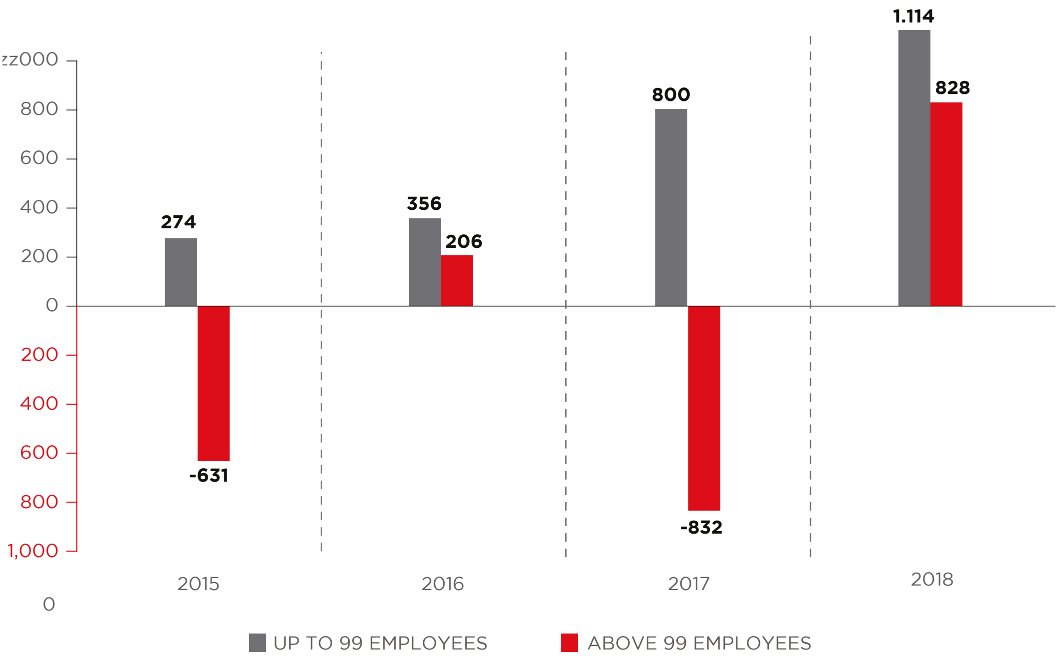
24 Available at: http://abracerva.com.br/2018/10/04/numero-de-cervejarias-artesanais-no-brasil-ja-cresceu-23-em-2018/

25 Available at: http://pages.abracerva.com.br/documento-mercado-da-cerveja

The data of hiring and firing between 2015 and 2018, show that factories with more than 99 employees cut about 429 jobs, while companies with up to 99 employees created 2,544 new jobs for the sector. The result is a net balance of 2,115 more formal workers in the industry. So, this result is a reflection of the increase in the national demand for differentiated beers which, in turn, warms the domestic market and encourages the increase of production, and also attracting new producers.

Graph VII

BALANCE OF HIRING AND FIRING OF BEER COMPANIES BETWEEN 2015 AND JANUARY 2018



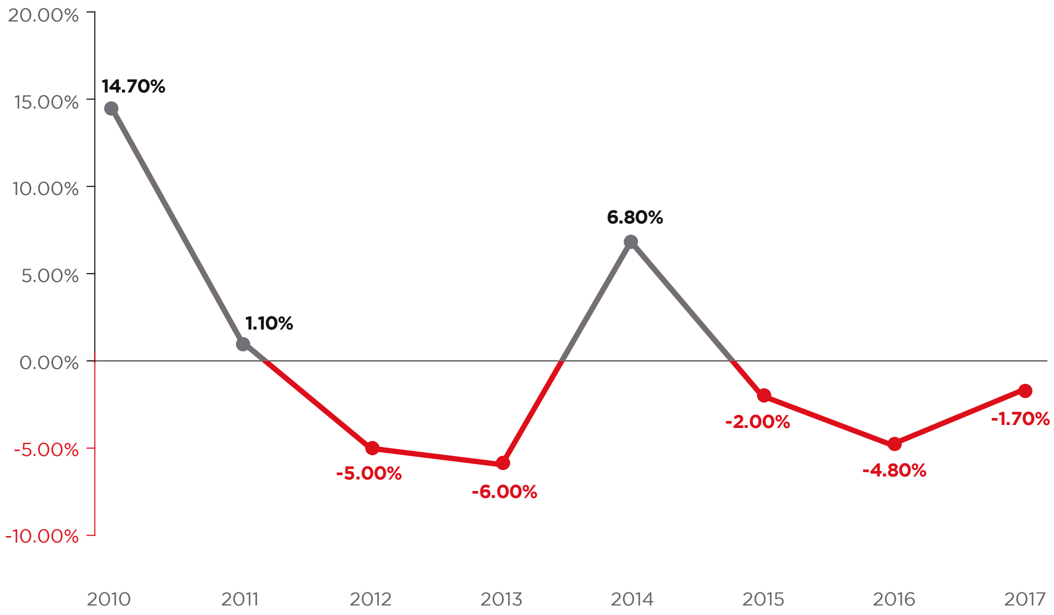
Source: ABRACERVA[26].

26 Available at: http://pages.abracerva.com.br/documento-mercado-da-cerveja

Positive numbers regarding to the labor market are not observed in the volume of sales of the sector. Although artisanal beer consumption has gained more and more consumers over the past few years, this sector-specific niche is still modest. Artisanal production accounts for about 1% of the volume and 2.5% of total industry revenue, according to Abracerva. In addition, CervBrasil[27], which brings together the 3 largest brands in the Brazilian market (Ambev, Heineken and Petrópolis), estimates that the beverage produced by them accounts for 95% of all Brazilian production in 2017.

Graph VIII

BRAZILIAN ANNUAL OF VOLUME VARIATION (%) OF BEER SALES BETWEEN 2010 AND 2017



Source: Nielsen[28].

27 Available at: http://cervbrasil.org.br/

28 Available at: https://www.nielsen.com/pt/pt/insights/news/2018/40-percent-beer-consumed-in-summer.html

In 2017 there was a reduction of 1.7% in total beer sales compared to 2016, a year in which the value of industrial production in the sector reached R$ 55.72 billion. However, according to Nielsen[29] data, industry revenue grew by 1.6% over the same period. Part of this growth was boosted by the 13% growth in premium and handmade beer sales. This fact points to the change in consumption patterns, in which consumers choose to drink less, but with better quality. That is, companies are losing sales volume, as the most common drinks are being consumed less, but there is an increase in the demand for more expensive labels of differentiated beverages.

Table III

VALUE OF INDUSTRIAL PRODUCTION AND BEER SALES IN 2016 (R$ BILLION)

PRODUCT	VALUE	PARTICIPATION
LIVING OR DEAD YEASTS (INCLUDING BIOLOGICAL YEASTS) AND OTHER DEAD MICRO-ORGANISMS; BREWER'S YEAST	0.71	1.28%
BEERS AND DRAFT BEER	26.91	48.29%
MANUFACTURE OF MALT, BEER AND BEER	28.10	50.43%
TOTAL	**55.72**	**100.00%**

Source: IBGE - Annual Industrial Survey - Product[30].

The special beers have contributed not only to the segment itself but also has affected the alcoholic beverage industry as a whole. According to data from Euromonitor International [31], consumption behavior of Brazilians have been changing over time and wine has for some years have been losing space for premium and artisan beers. In 2016, for every liter of wine consumed in Brazil, four liters of premium beer was consumed, in 2011 that proportion was one liter of wine for every 2.7 of beer, a 49% increase in five years.

29 Available at: https://www.nielsen.com/pt/pt/insights/news/2018/40-percent-beer-consumed-in-summer.html

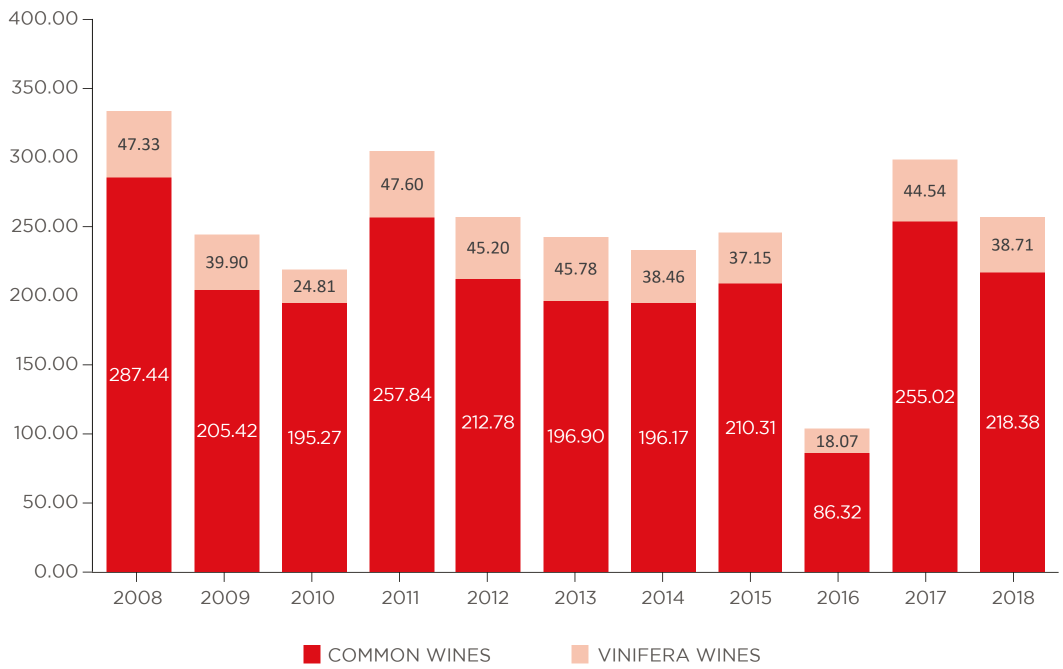
30 Available at: https://sidra.ibge.gov.br

31 Available at: https://blog.euromonitor.com/cervejas-premium-substituem-os-vinhos-no-brasil/

The data still indicate that wine is not a product considered essential in the consumption basket of Brazilians and its consumption is directly affected by the economic performance of the country. Premium beers have become a substitute for wine, especially during the years 2015 and 2016 when Brazil experienced a severe economic crisis. In other words, this behavior reveals that wine is not an essential product for Brazilians and that changes in the price of the product or income of the economy directly affect the consumption of the drink.

Graph IX

BRAZILIAN WINE PRODUCTION BETWEEN 2008 AND 2018 (MILLIONS OF LITERS)



Source: Secretariat of Agriculture of Rio Grande do Sul[32].

32 Available at: http://www.uvibra.com.br/pdf/safra_uva2008-2018.pdf

The national wine production between 2008 and 2018 maintained a balanced trajectory, except for 2016, where production was about 57.82% lower than that of 2015. World climatic events, which had a stronger impact on Latin American countries, contributed so that there was a decrease in the world production of grapes. In that year, the value of the industrial production of wines reached more than R$ 1.28 billion, about 58% of the value of the production of the grape industry.

Table IV

VALUE OF INDUSTRIAL PRODUCTION AND SALES OF THE GRAPE INDUSTRY IN 2016 (R$ MILLION)

PRODUCT	VALUE	PARTICIPATION
FERMENTED GRAPE MUST	17.50	0.77%
VERMOUTH AND OTHER WINES OF FRESH GRAPES FLAVORED	38.94	1.72%
BRANDY OF WINE OR GRAPE MARC (BRANDY, BRANDY, ETC.)	55.07	2.43%
REFRESHMENTS, JUICES OR GRAPE NECTARS, READY FOR CONSUMPTION	141.02	6.23%
CONCENTRATED GRAPE JUICE (INCLUDING UNFERMENTED GRAPE MUST)	216.15	9.55%
WINE OF FRESH GRAPES, CHAMPAGNE TYPE	223.83	9.89%
WHOLE GRAPE JUICES	544.88	24.08%
GRAPE WINES, OTHER THAN OF A CHAMPAGNE TYPE	1,025.39	45.32%
TOTAL	**2,262.78**	**100,00%**

Source: IBGE - Annual Industrial Survey - Product[33].

33 Available at: https://sidra.ibge.gov.br

But in the following year of 2017, national production showed signs of recovery and reached 752.50 million liters of the drink, about 150.58% of the volume produced in 2017. Linked to this increase in production, and to the measure that the Brazilian economy began a process of stabilization, there was also a 5.67% increase in wine sales when compared to the previous year, according to the Brazilian Wine Institute (Ibravin). In 2018, the industry already employed around 200 thousand people along its production chain, handled more than R$ 9 billion and had more than 1,100 formalized wineries.

WORLD CONSUMPTION OF ALCOHOLIC BEVERAGES AND THE REGIONALIZATION OF CONSUMER STANDARDS

Brazil was the 3rd largest consumer of alcoholic beverages in the world in 2018, reaching 14 billion liters. The country was only behind China and the United States, according to a survey developed by the Statist[34]. The highlight was for the Asian country, which consumed about 54.29 billion liters of alcoholic beverages in 2018. The volume consumed by the Chinese is 78% higher than in the United States consumption of 30.50 billion liters. Despite being the third ranked in this ranking, Brazilian demand is less than half the demand observed in the United States.

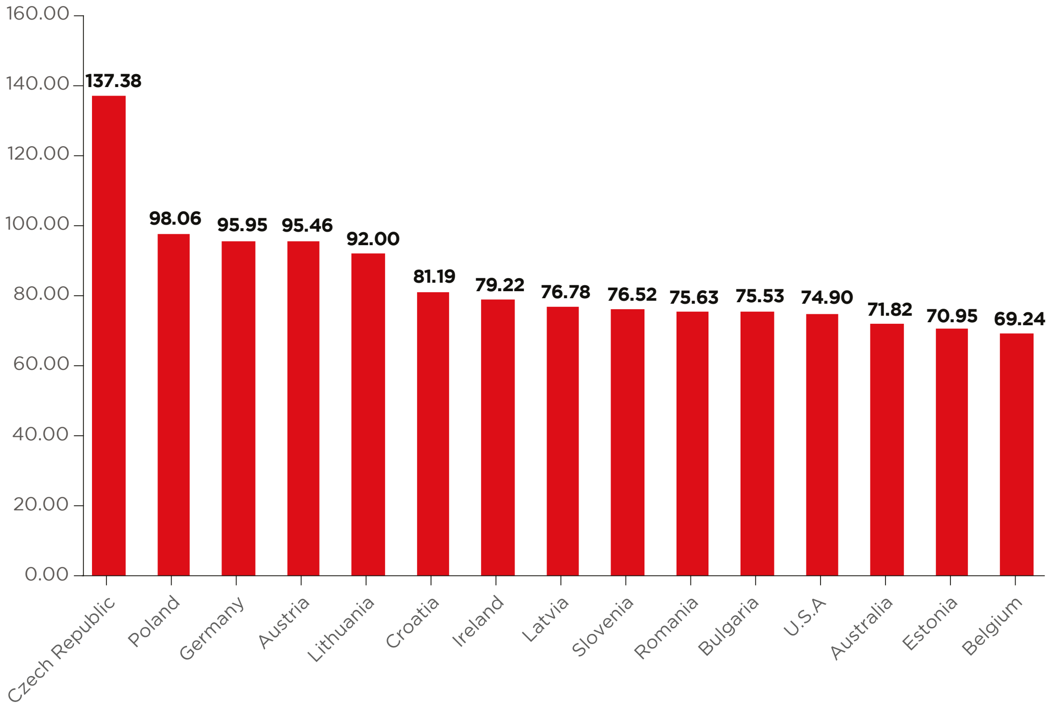
Although China's absolute demand is the highest, when it is considered in per capita terms the country loses positions in this ranking. The United States achieved an average consumption of 93.8 liters per inhabitant in 2018, while for Brazil the volume was 67.8 liters. The Chinese had per capita consumption of 39.3 liters. Germany is the leader of this ranking, the per capita consumption of the European country reached a volume of 140.9 liters of drink per inhabitant in 2018.

Both absolute consumption and per capita consumption of alcoholic beverages change between countries. In addition, the type of drink consumed also changes according to the geographical location. In the ranking of the largest consumers of beer, for example, the first place is with the Czech Republic, which in 2017 consumed on average 137.38 liters of beer per capita.

34 Available at: https://www.statista.com/chart/12510/the-countries-drinking-the-most-beer

Graph X

MAIN CONSUMERS OF BEER IN THE WORLD IN 2017 (LITERS / INHABITANT / YEAR)



Source: Statista[35].

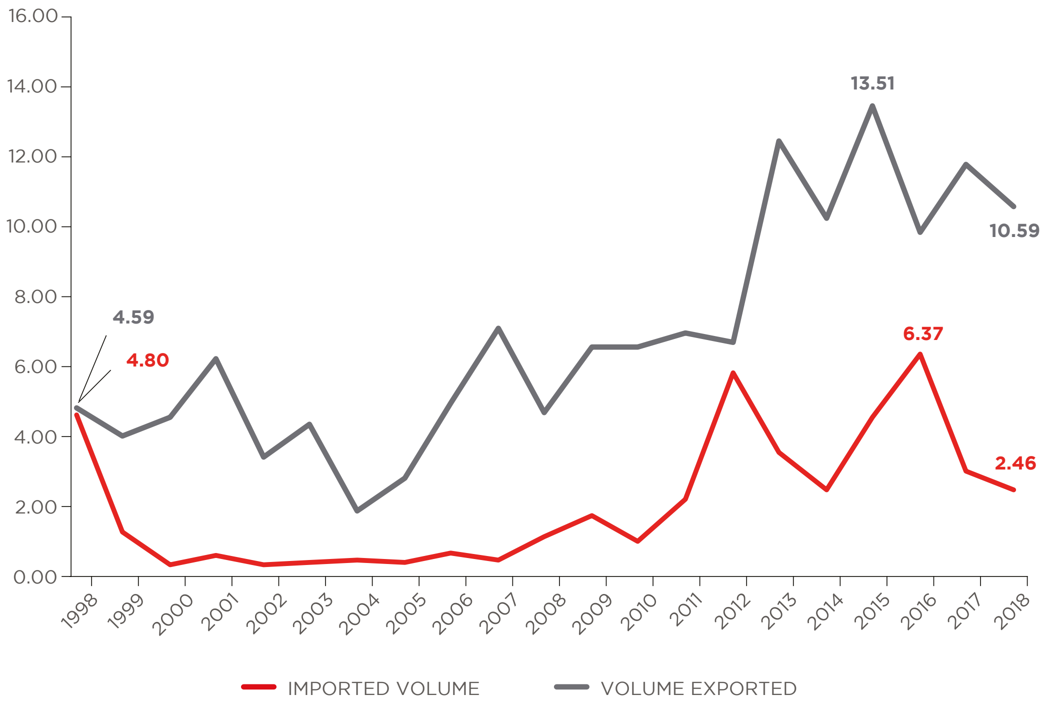
The countries of Eastern Europe dominate the consumption of beer. The United States holds the 12th in the ranking, with 74.90 liters per capita in 2017. In total, US$ 281 billion was traded in the brewing market in 2017. In the list of the 15 largest world beer consumers, Brazil is not even quoted, despite being the most consumed drink in the country. According to Statista data, the Brazilians consumed, on average, 65.27 liters of the drink in 2017.

35 Available at: https://www.statista.com/chart/12510/the-countries-drinking-the-most-beer/

In addition, there is a change in consumption pattern in the national beer market. Consumers have traded quantity for quality, giving room for the premium and handmade types of the beverage, fostering the domestic market. In addition, the new national production pattern has contributed to an increase in exports, which has grown mainly since 2014, mainly due to the highlight that the national artisanal beverage has received in the rest of the world. The magazine BeerArt[36] surveyed the number of awards that Brazilian craft beers received between 2007 and 2017 in the foreign market. In 2007 there were only two awards, but this number grew year-by-year, reaching 255 awards in 2017. This performance has generated more and more visibility for the national beverage and collaborated with the increase of the external demand for Brazilian artisanal beer.

Graph XI

BRAZILIAN EVOLUTION OF BEER[37] EXPORTS AND IMPORTS BETWEEN 1998 AND 2018 (THOUSAND TONS)



Source: Comex Stat (2018)[38].

36 Available at: https://revistabeerart.com/

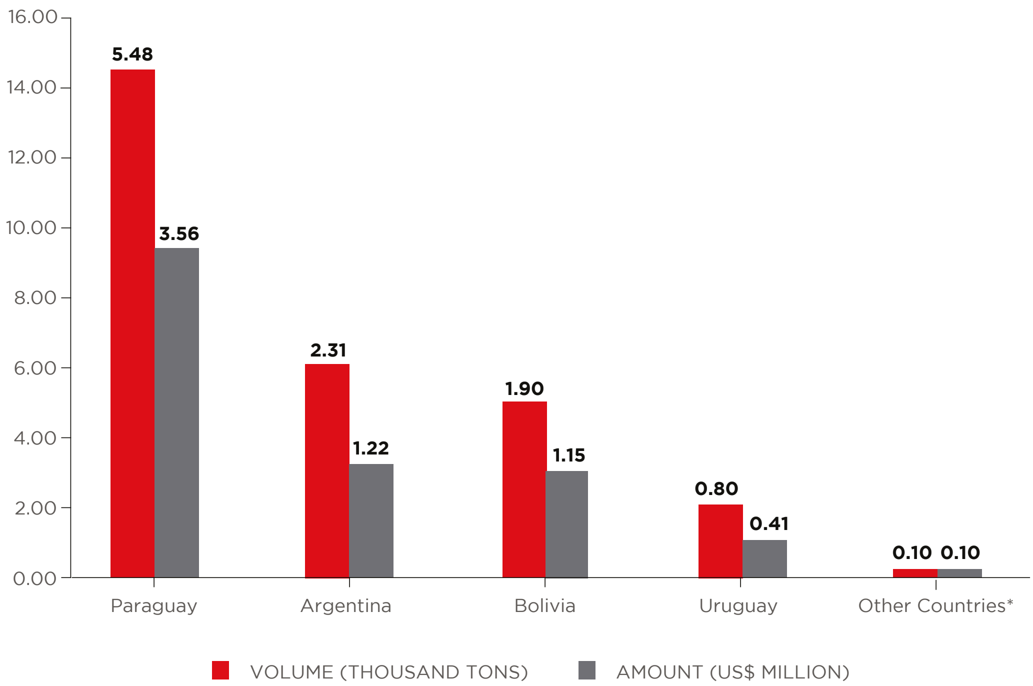
37 The products listed in Annex 1 have been considered.

38 Available at: http://comexstat.mdic.gov.br/pt/geral

Between 1998 and 2018 Brazil remained in the category of net exporter of beer, reaching its peak of exports in 2015. In 2018, 10,59 thousand tons of beer were exported through Brazil. The main destinations were the South American countries Paraguay, Argentina, Bolivia and Uruguay, which imported practically all the volume marketed by Brazil. Paraguay, the main destination of the Brazilian beverage, accounted for 51.79% of the total volume shipped by Brazil, responsable for about 55.26% of the value marketed.

Graph XII

BRAZILIAN BEER EXPORTS IN 2018 - DESTINATION COUNTRIES (THOUSAND TONS / US$ MILLION)



Source: Comex Stat (2018)[39].

(*) China, United States, Netherlands, Chile and United Kingdom.

39 Available at: http://comexstat.mdic.gov.br/pt/geral

Although not dependent on the external market for beer consumption, the same scenario is not observed for wine. Between 1998 and 2018, the trade balance of the beverage derived from the grape has been deficient. Brazil not only imports more than it exports, but the volume imported has been growing over the years.

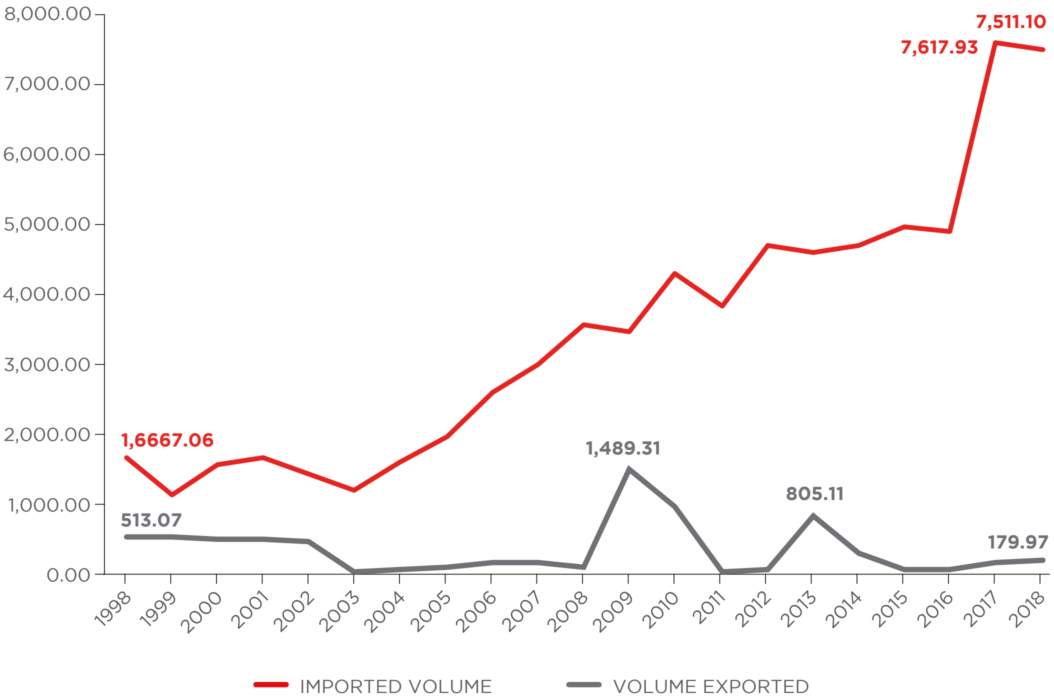
Despite the large volume of wine imported by Brazil, in 2018 the country was the 15th largest producer in the world and the fifth largest in the Southern Hemisphere, according to the International Organization of Vine and Wine (OIV)[40]. The country produces about 225 varieties of grapes responsible for the production of various types of wine. Brazilian wine products are present in 59 countries and on 5 continents and about 90% of the volume exported originates in Rio Grande do Sul.

In 2018 Brazilian wine exports grew by 29.62% in volume and 19.67% in value, compared to 2017. Meanwhile, for the same period, there was a decrease of 1.40% in volume and an increase of 6.65% in value of the imports of the product.

40 Available at: http://www.oiv.int/

Graph XIII

BRAZILIAN EVOLUTION OF WINE EXPORTS AND IMPORTS BETWEEN 1998 AND 2018 (TONS)



Source: Comex Stat[41].

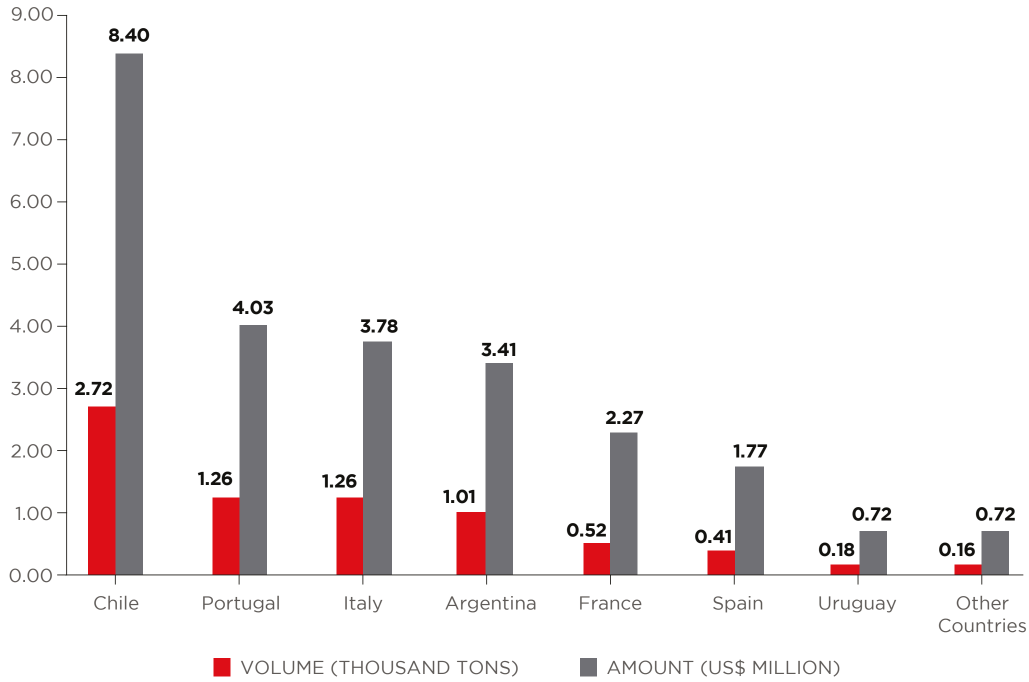
The volume of imported wine far exceeds the sector's exports. While between 1998 and 2018, exports fell by 65%, imports in turn had a significant growth of more than 350%.

A large part of this imported volume comes from Chile. The South American country was responsible for more than 30% of the volume and value of Brazilian wine imports. In addition to Chile, Portugal, Italy, Argentina and France were the countries responsible for the largest volumes imported by Brazil. Together these five countries were responsable for about 90% of the volume and 87% of the value of the wine demanded by Brazil.

41 Available at: http://comexstat.mdic.gov.br/pt/geral

Graph XIV

BRAZILIAN IMPORTS OF WINE IN 2018 - COUNTRIES OF ORIGIN (THOUSAND TONS / US$ MILLION)



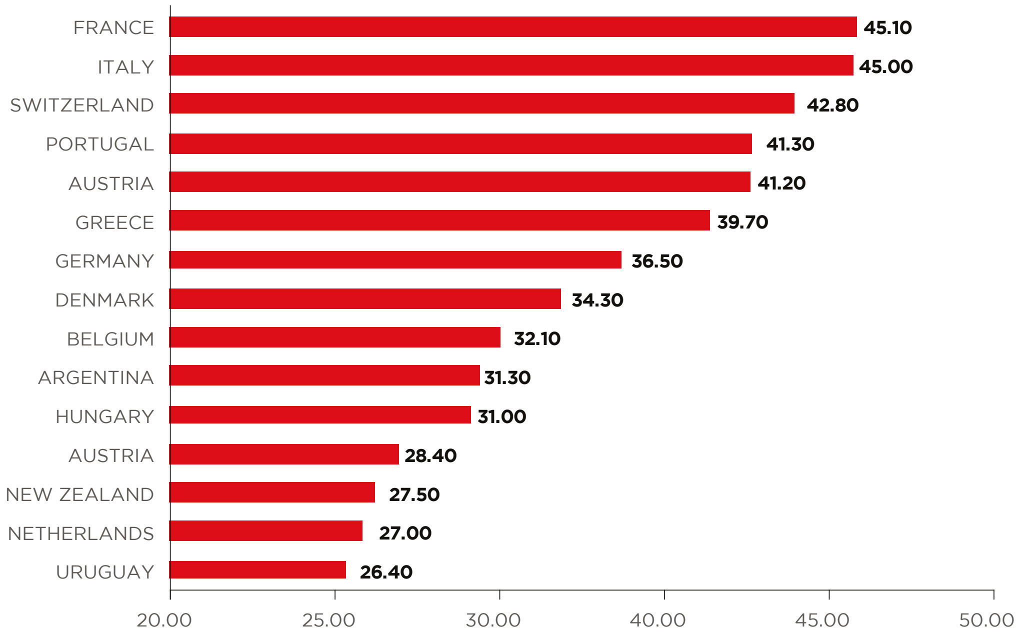
Source: Comex Stat (2018)[42].

Among the countries that compose the ranking of the main exporters of wine to Brazil, some are also great consumers of the drink. Portugal, Italy, Argentina and France are among the ten largest consumers per capita in the world. In 2018 the consumption of these countries exceeded 30 liters per inhabitant. France leads this ranking, the European country had a per capita consumption of 45.10 liters in 2018.

42 Available at: http://comexstat.mdic.gov.br/pt/geral

Graph XV

CONSUMPTION OF WINE PER CAPITA IN THE MAIN CONSUMING COUNTRIES, IN 2018 (LITERS / INHABITANT / YEAR)



Source: Statisa[43].

The volume consumed by the French is very close to that consumed by Italy. Switzerland. Portugal and Austria include the top five global consumers. In addition, Argentina is the only South American country in the ranking of the 10 largest consumers. The country had per capita consumption of 31.30 liters in 2018.

43 Available at: http://www.foodnewsoficial.com.br

BARRIERS TO COMMERCIALIZATION OF WINE IN BRAZIL: DIFFICULT COMPETITION WITH THE EXTERNAL MARKET

Within the Brazilian market, wine consumption is still largely made up of imported beverages. The external dominance reached the mark of 86.3% of the entire national market at the end of the first half of 2017, the highest rate since the last eight years. The national beverage was the remaining 13.7%, according to data from Ibravin[44]. In 2011, imports accounted for about 78.8% of the Brazilian consumer market, while nationals about 21.2%.

The advance of imported products raises concerns for the sector, since, according to data from Ibravin, more than 85% of the volume imported are products worth less than US$ 4.00, and the largest quantities are brought by large retail chains. In addition, domestic products collect much more taxes on production than imported products, generating an imbalance within the sector. In addition to the retail chains, traditional importers/distributors and a group of Brazilian wineries also have higher tax advantages than buying products from abroad.

Allied to the lack of competitiveness in relation to the imported product, wine is not a basic item in the Brazilian consumption basket. If there is a high in the price of the product, or the country goes through periods of economic crisis that affect the income of the Brazilian, as in 2015 and 2016, its consumption is reduced significantly. Institutions and associations linked to the sector have developed partnerships and worked to overcome these difficulties[45]. The objective is to improve the quality of the Brazilian product and, in addition, to promote it both in the domestic market and for the external public. In that direction, it had been made efforts to train producers and wineries, mainly in the state of Rio Grande do Sul. There are mini-courses and consultancies to implement procedures to reduce contamination risks, in order to maintain quality, from raw material to final product. In the area of promotion of Brazilian wine, partnerships were established to bring information about the national product to the bars and restaurants of the country. Therefore, the Brazilian wine sector has been working both to reduce the negative impact of the high tax burden and to become more competitive and, thus, to obtain larger slices of the domestic market.

44 Available at: https://www.ibravin.org.br/

45 Source: https://sebraers.com.br/vitivinicultura/setor-vitivinicola-enfrenta-desafios-no-brasil-e-no-exterior/

1. THE INDUSTRY OF ALCOHOLIC BEVERAGES IN BRAZIL AND THE WORLD

Among the main Brazilian industrial segments, the food and beverage industry is far the largest. According to the Brazilian Association of Food Industries[46] (ABIA), in 2017, the food and beverage industry had total revenue of R$ 642.6 billion. Of this amount, 81% was generated in food production and 19% in beverages manufactoring. In addition, this industrial segment includes a contingent of 35.6 thousand companies and generating directly jobs for more than 1.6 million people.

Only the Brazilian beverage industry, according to ABIA[47], is responsable for about 3% of the value of industrial production in Brazil, and in 2016 generated R$ 117 billion, representing 1.9% of GDP and 4.8% of VBP from transformation industry. This industry can be divided into two major groups: non-alcoholic beverages representing 53.3% and alcoholic drinks with 46.7% of the segment.

The Brazilian alcoholic beverage industry can be divided into three main categories: cachaça, beer and wine. In which beer, in 2015, was responsable for almost 70% of the consumption[48] (in volume) of alcoholic beverages in the country. According to the Brazilian Beer Industry Association[49] (CervBrasil), in 2016, only the beer production chain mobilized around 12 thousand suppliers of goods and services and around 8 million professionals from different areas. Throughout the process, several sectors were involved: civil construction, transportation, energy, vehicles, pulp and paper, aluminum and glass, among others, involving more than 1 million small and medium-sized companies and reaching around 99% of the country's homes.

In order to present an overview of the Brazilian beer and viticulture industry, secondary data were used, from the primary production of the sector, through industrial production to the foreign market.

46 Available at: https://www.abia.org.br/vsn/tmp_1.aspx?id=32

47 Available at: https://www.abia.org.br/vsn/tmp_1.aspx?id=32

48 Available at: https://www.euromonitor.com/alcoholic-drinks-in-brazil/report

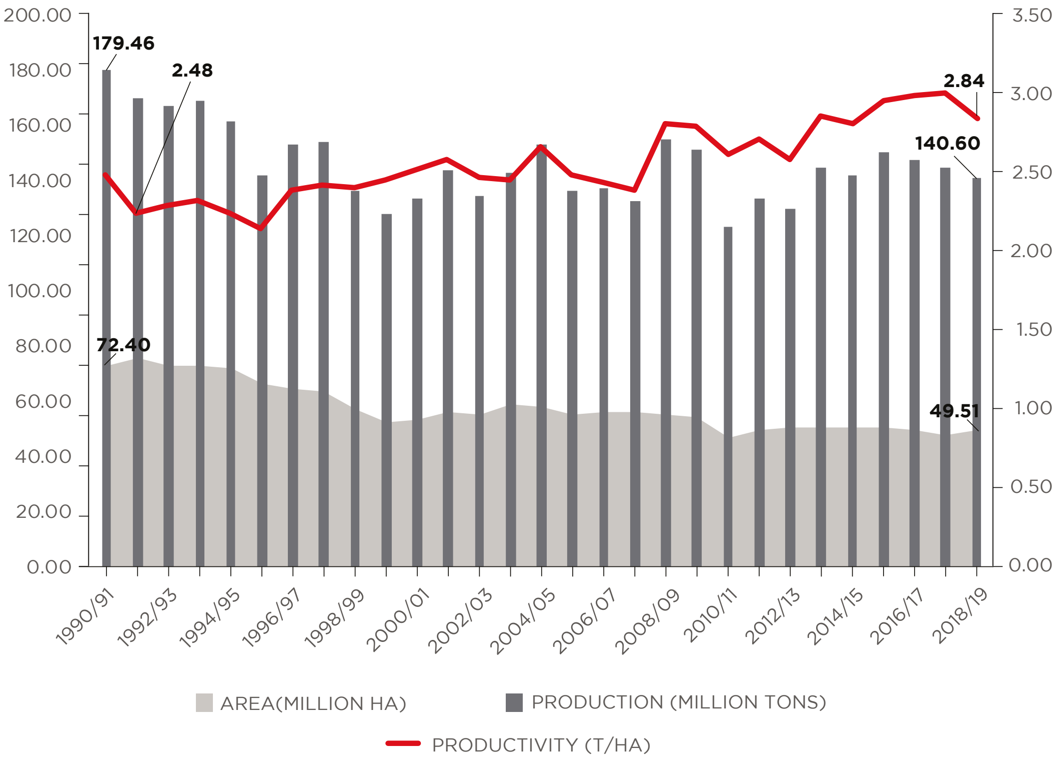
49 Available at: http://www.cervbrasil.org.br/novo_site/

1.1. PRIMARY PRODUCTION OF BEER - BARLEY

Barley is one of the main cereals produced in the world, it is typically a winter crop and the production is more concentrated in the European Union and Russia. Artificial germination[50] of the grain gives rise to the malt, which is used for brewing. In 2018, the grain production has present in more than 50 countries worldwide and reached a volume of more than 140 million tons. All this volume came from a harvested area of more than 49 million hectares, allowing the crop to reach, on average, the harvested productivity of 2.84 tons per hectare, see Graph 1.

Graph 1

GLOBAL EVOLUTION OF PRODUCTION, PRODUCTIVITY AND HARVESTED AREA OF BARLEY BETWEEN 1990 AND 2018 (MILLIONS OF TONS, TONS/HECTARE AND MILLIONS OF HECTARES)



Source: USDA[51].

50 Artificial germination of barley is the process in which water is added to the grain to cause a controlled germination with optimum temperature. After reaching the point, the process is interrupted and the malt is dried, thus brewing the malt. This is how malt is included in the brewing process.

51 Available at: https://apps.fas.usda.gov/psdonline/app/index.html#/app/advQuery

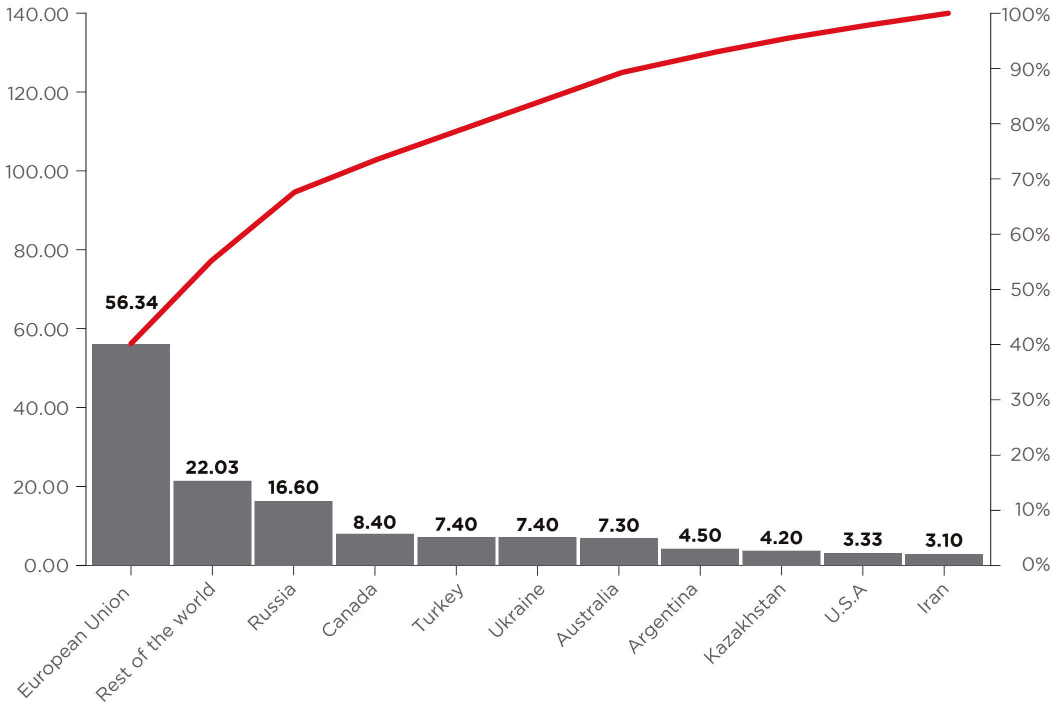
The performance in 2018 shows that barley production has been relatively stable compared with developments since the mid-1990s, specifically since 1995, when 141.17 million tons of grain were produced. The record volume for the period, 179.46 million tons, was produced in the 1990 harvest and fell until the 1995 harvest. Thereafter, the average volume remained at the household of 140 million tons produced per year, with a maximum production of 155.05 million in 2008 and a minimum of around 1,22.71 million in 2010.

The harvested area from barley also has reduced in the early 1990s, from 72.40 million hectares harvested in 1990 to 66.38 in 1995. However, unlike production, the area used did not stabilize over the following decades and continues to reduce gradually. Between 1990 and 2018, there was a cumulative reduction of 31.62%, representing an average decline of 1.30% per year.

The stabilization of production levels, togather with the reduction of harvested area, indicates that barley cultivation, in general, has become more productive over the years. Between 1990 and 2018, there was a 14.52% increase in cereal productivity, which means an average growth of 0.47% per year. While in 1990 harvested 2.48 tons of barley per hectare, in 2018 this value reached 2.84 tons. Countries such as Chile, New Zealand and Switzerland lead the grain productivity ranking in 2018, having harvested over 6 tons per hectare.

European Union, the main region producer in the world, also had productivity rates above the world average. In 2018 were harvested 4.53 tons of barley per hectare in the region, making possible a production of 56.34 million tons. Russia in 2018 produced a volume of 16.60 million tons, with a productivity below the average, reaching 2.16 tons per hectare. Among the world's leading producers there are also Canada, Turkey, Ukraine, Australia, Argentina, Kazakhstan, the United States and Iran, see Graph 2.

Graph 2
GLOBAL BARLEY PRODUCTION IN 2018 (MILLION TONS)



Source: USDA[52].

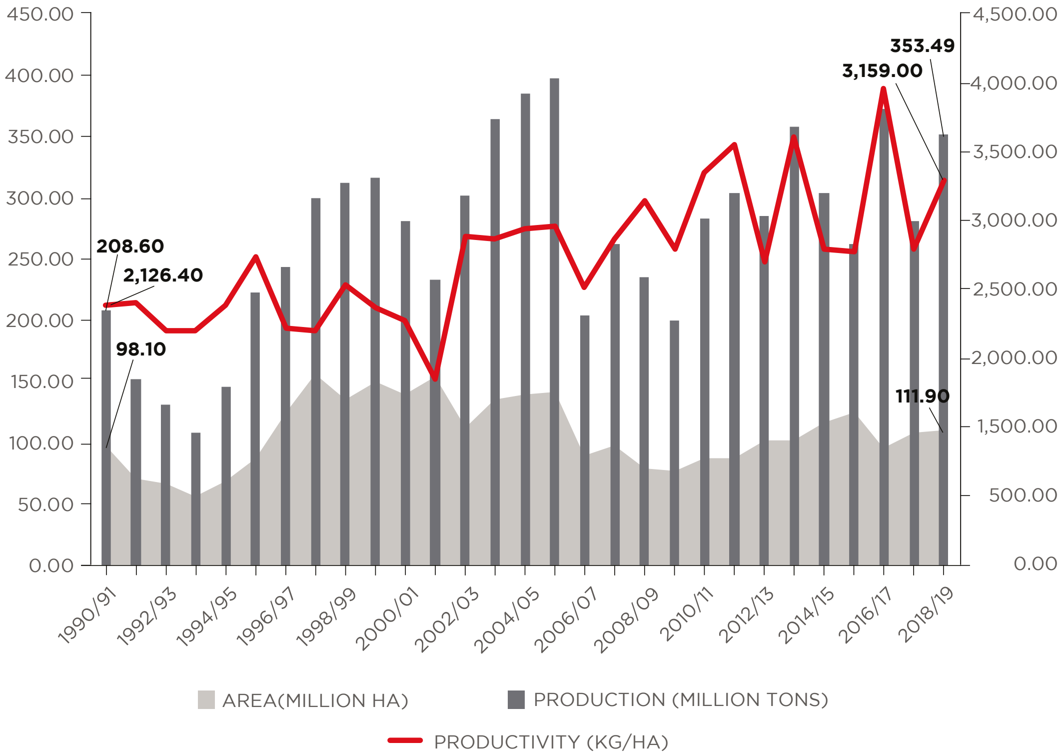
Brazil is only the 29th world producer of barley with 353.49 thousand tons produced in 2018, and according to Embrapa Wheat[53], the expansion of this crop being relatively recent in the country. In addition, it is linked to the brewing industry initiative, which fostered domestic production to guarantee supply, and by the increase of foreign product in the 1970s. Graph 3 presents the evolution of barley cultivation in Brazil from 1990 to 2018.

52 Available at: https://apps.fas.usda.gov/psdonline/app/index.html#/app/advQuery

53 Available at: http://www.cnpt.embrapa.br/biblio/do/p_do139_4.htm

Graph 3

BRAZILIAN EVOLUTION OF PRODUCTION, PRODUCTIVITY AND HARVESTED AREA OF BARLEY BETWEEN THE 1990 AND 2018 (THOUSAND TONS, KG/HA AND THOUSAND HA)



Source: Conab[54].

The observed evolution between the years 1990 and 2018 was possible, according to Embrapa, due:

- To official incentive for the construction of malts from the mid-70's, which made possible the expansion of internal malting and grain storage capacity;
- To financing and guaranteeing production prices; and
- Finally, the intensification and diversification of the research developed by Embrapa itself. This effort enabled adapted cultivars and development of management techniques appropriate to local climate and soil conditions.

54 Available at: https://www.conab.gov.br/info-agro/safras/serie-historica-das-safras

Between 1990 and 1995, the production oscillated above one hundred thousand tons. From then on, it reached 200 thousand tons and increased until 2005, a year in which the record harvest of almost 400 thousand tons was reached. Despite the good performance observed in 2005, the 2006 harvest produced a volume 48.47% lower than the previous one. According to the IBGE[55], this decline occurred due to the reduction of the planted area, motivated by the low prices obtained with the previous harvest. As of 2010, production resumed growth and reached the volume of 353 thousand tons in 2018.

For the period from 2006 to 2018, the harvested area grew moderately, rising from 90 thousand to around 112 thousand hectares, representing an accumulated growth of 24.33%. For the same period production grew 71.76%. According to Embrapa[56], output growth is explained by the increase of about 38.13% in productivity, reaching its record in 2016 with 3.92 tons per hectare.

Brazilian production is totally concentrated in the southern states of the country, basically in Paraná and Rio Grande do Sul. In the 1990s, according to CONAB data, the state of Rio Grande do Sul was the largest producer, 66.8% of production in the country, however, in the following decade Paraná came to occupy this position with 49.8% of production. In the period 2007-2011, 55.0% of the area under cultivation was concentrated in Paraná, which contained 62.6% of the production, while in Rio Grande do Sul this area was 42.4% in Rio Grande do Sul, with 34.9% of production. Regarding to the last harvest in 2018, Paraná and Rio Grande do Sul were practically with the same area of planting of barley, about 55 thousand tons. However, the state of Paraná was more productive, responsable for about 62% of the production, while Rio Grande do Sul had 37.4%. This difference occurred through productive performance, while the productivity of the 2018 harvest reached around 3.94 tons per hectare in Paraná, in Rio Grande do Sul, it was only 2.38 tons/ha.

In terms of production yields, between 2015 and 2017, barley presented a negative profit only in 2016, a year in which production was high and there was a greater supply of cereal in the market. For the other years, 2015 and 2017, there was a positive profit, see Table 1.

55 Available at: https://censo2010.ibge.gov.br/

56 Available at: http://www.cnpt.embrapa.br/biblio/do/p_do139.pdf

Table 1
AVERAGE PROFIT YIELD PER HECTARE FOR THE BARLEY PRODUCED IN THE STATE OF PARANÁ BETWEEN 2015 AND 2017 (R$/HA)

	AVERAGE INCOME	AVERAGE COSTS	PROFIT
2015	R$ 674.95	R$ 591.33	R$ 83.62
2016	R$ 650.03	R$ 655.50	R$ -5.47
2017	R$ 880.11	R$ 818.00	R$ 62.11

Source: IBGE[57], Conab[58].

1.2. PRIMARY PRODUCTION OF VINE - GRAPE

Brazil with its climatic diversity typical of a continental country managed to reach a completely original wine-growing. According to the Brazilian Wine Institute[59] (IBRAVIN), the process of European immigration, combined with investment in innovation, resulted in grapes that made possible a drink with a unique personality. There are different production areas with diverse specialties.

The area of wine production in Brazil currently amounts to 79.90 thousand hectares. There are more than 1,100 wineries scattered throughout the country, most of them installed in small properties (average of 2 hectares of vineyards per family). Although present in several Brazilian states and regions, production is concentrated in few federation units. Approximately 90% of the national production is concentrated in Rio Grande do Sul, it is mainly destined to the juice and wine industry and is basically produced by small farmers. In recent years, according to Embrapa[60], there has been the implementation of Geographical Indications in Brazil, in this way viticulture has contributed to the development of the territories involved, promoting aggregation of value to products and appreciation of their respective natural inputs.

57 Available at: https://cidades.ibge.gov.br/brasil/rs/pesquisa/14/10193

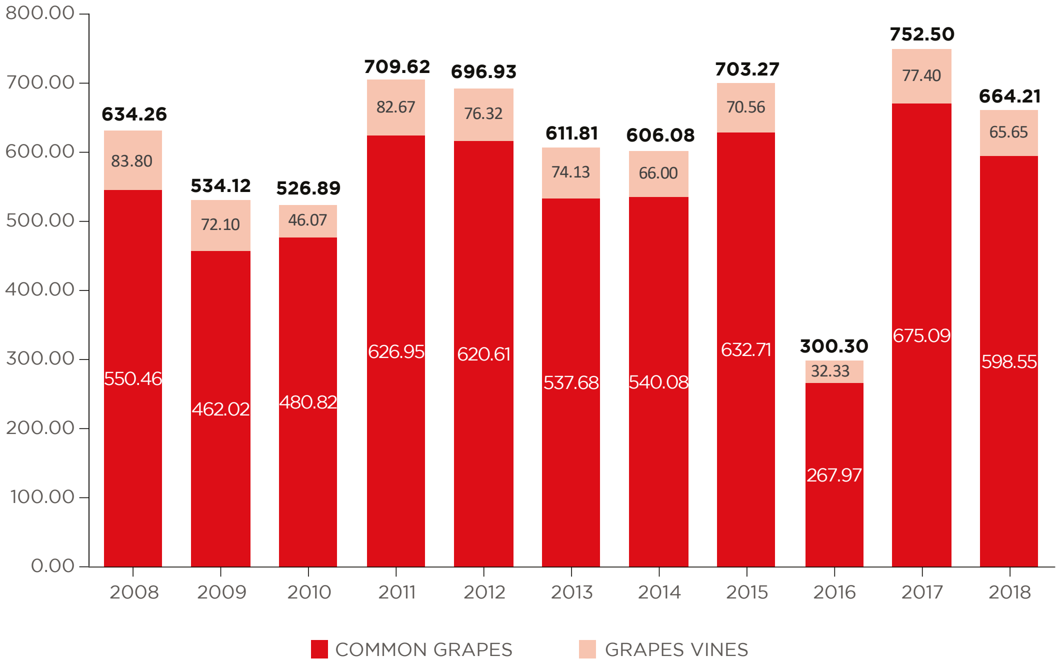
58 Available at: https://www.conab.gov.br/info-agro/custos-de-producao/planilhas-de-custo-de-producao

59 Available at: https://www.ibravin.org.br

60 Available at: https://www.embrapa.br/busca-de-noticias/-/noticia/9952204/artigo-desempenho-da-vitivinicultura-brasileira-em-2015

Graph 4

EVOLUTION OF GRAPE PRODUCTION IN THE STATE OF RIO GRANDE DO SUL BETWEEN 2008 AND 2018 (THOUSAND TONS)



Source: Secretariat of Agriculture of Rio Grande do Sul[61].

Analyzing the Rio Grande do Sul grape production between 2008 and 2018, it is possible to observe that there was a strong reduction in the 2016 harvest. In that year, the total production reached little more than 300 thousand tons, including grapes (more bitter and mainly for the production of wine) and common (more sweet, for food consumption and the production of softer wines). According with Embrapa[62], has been one of the most difficult crops in the industry in recent years. Climatic events such as frost and excessive rainfall contributed to the whole state being affected, compromising the productivity of the vineyards.

61 Available at: http://www.uvibra.com.br/pdf/safra_uva2008-2018.pdf

62 Available at: https://www.embrapa.br/busca-de-noticias/-/noticia/9103859/artigo-safra-da-uva-2016----o-que-esta-acontecendo

Despite the performance of 2016, the year of 2017 was one of greatest production for the analyzed period. In addition, there was a positive profit for the producers. On average the value of production exceeded costs, resulting in positive gain, see Table 2.

Table 2
AVERAGE PROFIT YIELD PER HECTARE FOR THE GRAPE PRODUCED IN THE STATE OF RIO GRANDE DO SUL IN 2017 (R$/HA)

	AVERAGE INCOME	AVERAGE COSTS	PROFIT
2017	R$1,272.15	R$1,080.00	R$192.15

Source: IBGE[63], Conab[64].

1.3. THE INDUSTRY OF ALCOHOLIC BEVERAGES IN BRAZIL

The alcoholic beverage industry is important in several countries in the world, including Brazil. The most recent IBGE[65] data show that between 2005 and 2014 there was an increase of 48.41% in the production of this segment in Brazil, jumping from 10.73 to 15.93 billion liters, see Graph 5. This growth comes mainly from manufacturing of beer and draft beer, which grew 56.88% for the same period, with production that was 9.22 billion liters in 2005 jumping to 14.46 in 2014. The manufacture of wine, despite having a less expressive rate, also showed growth for the period, rising from 293.37 million liters in 1995 to 344.45 million in 2015, an accumulated growth of 17.41%.

63 Available at: https://cidades.ibge.gov.br/brasil/rs/pesquisa/14/10193

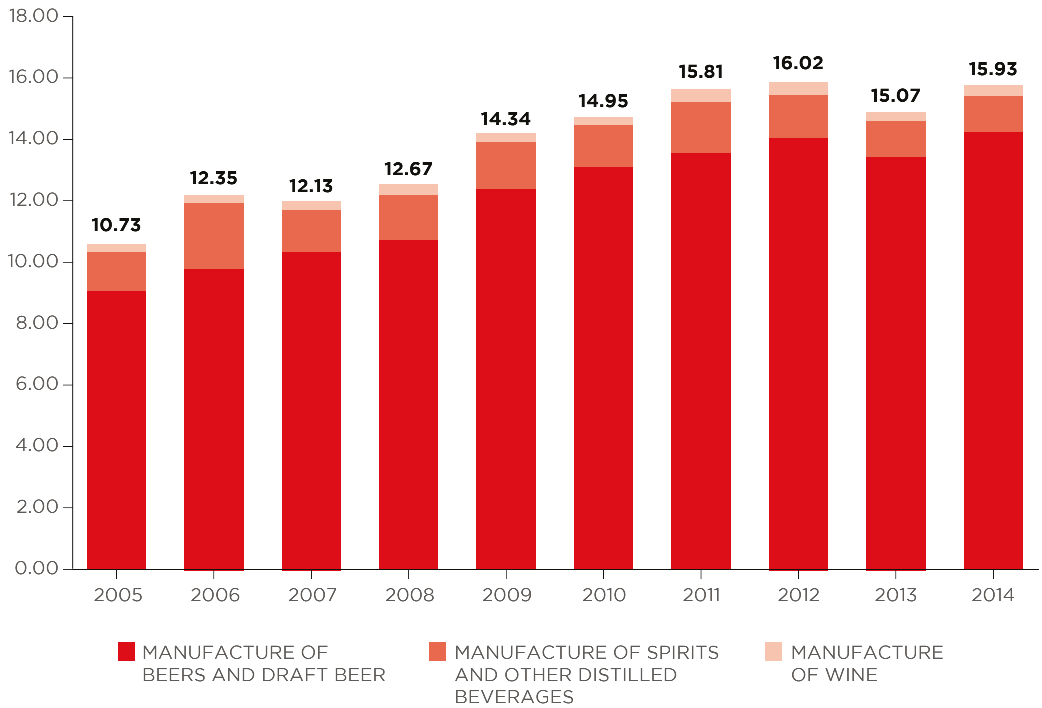
64 Available at: https://www.conab.gov.br/info-agro/custos-de-producao/planilhas-de-custo-de-producao

65 Available at: https://www.economiaemdia.com.br/EconomiaEmDia/pdf/infset_industria_de_bebidas.pdf

1.3.1. THE INDUSTRY OF BEER

In 2014 the production of beer and draft beer corresponded to 90.75% of the total volume of alcoholic beverages produced in Brazil, see Graph 5. The participation of this sector, besides being the most expressive, has been growing over the years. It is possible to observe not only the increase in beer production, but also the growth of the number of breweries in Brazil, see Graph 6. In 2018, the total number of breweries registered in Brazil was 889 establishments and a total of 16,968 products. In total, 210 new factories were opened on average once every two days.

Graph 5
BRAZILIAN EVOLUTION OF PRODUCTION IN THE ALCOHOLIC BEVERAGE INDUSTRY BETWEEN 2005 AND 2014 (BILLIONS OF LITERS)

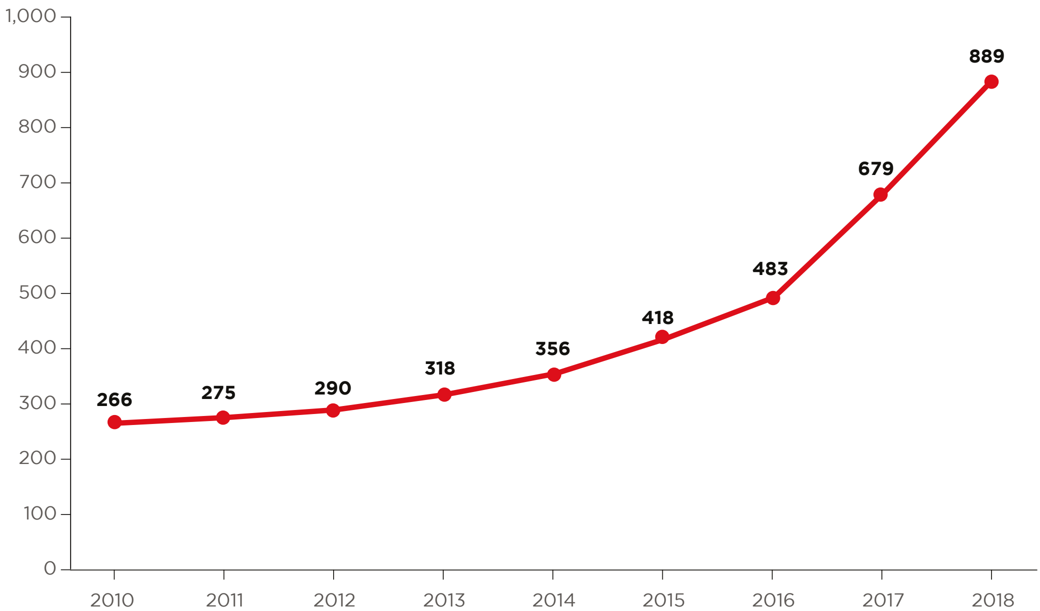


Source: IBGE[66].

66 Available at: https://sidra.ibge.gov.br

According to the Ministry of Livestock and Food Supply[67] (MAPA), the expansion has been boosted by the production of specialty beverages, reflecting a change in the consumption pattern of Brazilians, who have been seeking differentiated and higher quality beverages. Among the 5,570 Brazilian municipalities, 479 have breweries, which represents approximately 10% of the total.

Graph 6
NUMBER OF BREWERIES IN BRAZIL BETWEEN 2010 AND 2017



Source: MAPA[68].

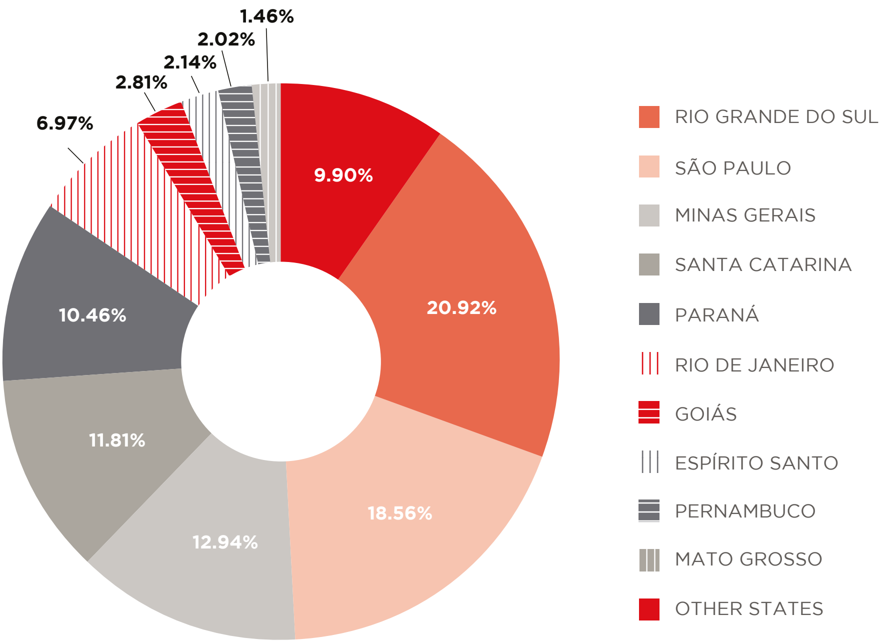
The state of Rio Grande do Sul leads the concentration of breweries with 186 establishments, 20.92% of the national total, followed by São Paulo and Minas Gerais with 165 and 115 establishments, respectively. The South-Southeast axis therefore concentrates around 83.80% of Brazil's breweries, see Graph 7.

67 Available at: http://www.agricultura.gov.br/assuntos/inspecao/produtos-vegetal/pasta-publicacoes-DIPOV/anuario-da-cerveja-no-brasil-2018

68 Available at: http://www.agricultura.gov.br/assuntos/inspecao/produtos-vegetal/pasta-publicacoes-DIPOV/anuario-da-cerveja-no-brasil-2018

Graph 7

NUMBER OF BREWERIES PER STATE IN BRAZIL IN 2018



Source: MAPA[69].

The increase in the number of breweries in Brazil, according to the Brazilian Association of Artisan Beer[70] (Abracerva), is related to the possibility of diversification of the beverage, which has adopted an artisan character, meeting an increasing demand of the consumer market. According to Abracerva[71], these artisanal breweries tend to be smaller, have a regional role and, although they employ a smaller number of employees in the aggregate, have generated an expansion of the number of workers in this sector in Brazil.

69 Available at: http://www.agricultura.gov.br/assuntos/inspecao/produtos-vegetal/pasta-publicacoes-DIPOV/anuario-da-cerveja-no-brasil-2018

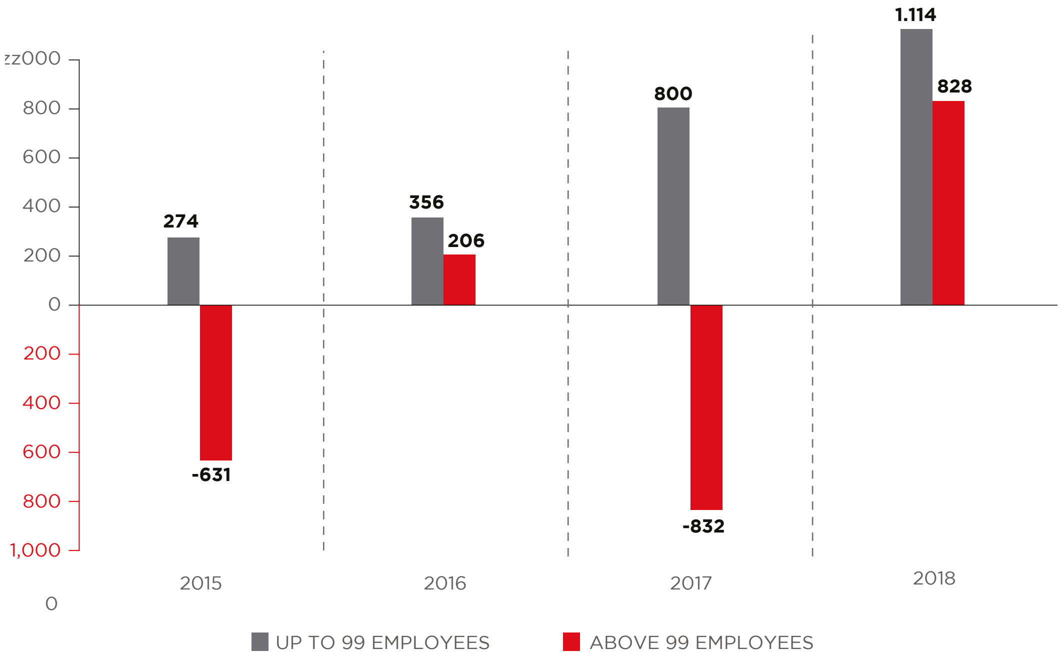
70 Available at: http://abracerva.com.br/2018/10/04/numero-de-cervejarias-artesanais-no-brasil-ja-cresceu-23-em-2018/

71 Available at: http://pages.abracerva.com.br/documento-mercado-da-cerveja

The data analysis of hiring and firing show that between 2015 and 2018 factories with more than 99 employees cut about 429 jobs, while companies with up to 99 employees created 2,544 new jobs for the sector. The result is a net balance of 2115 more formal workers in the industry. So, this result is a reflection of the increase in the national demand for differentiated beers which, in turn, warms the domestic market and encourages the increase of production, and also attracting new producers, see Graph 8.

Graph 8

BALANCE OF HIRING AND FIRING OF BEER COMPANIES BETWEEN 2015 AND JANUARY 2018



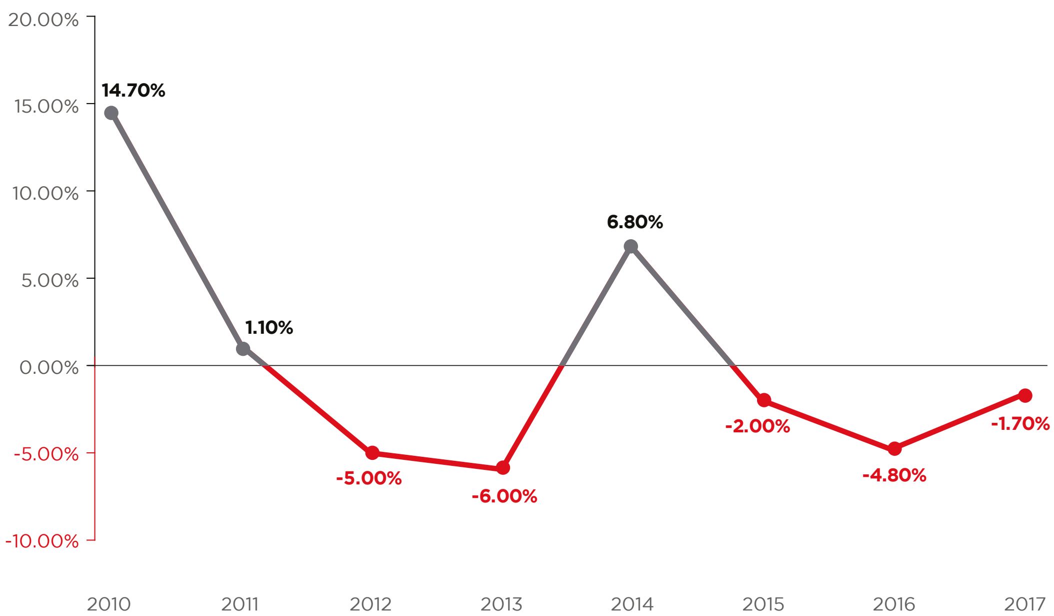
Source: ABRACERVA[72].

72 Available at: http://pages.abracerva.com.br/documento-mercado-da-cerveja

Positive numbers regarding the labor market are not observed in the volume of sales of the sector, see Graph 9. Although the consumption of artisanal beer has gained more and more consumers over the last years, this specific niche of the sector is still modest. Artisanal production accounts for about 1% of the volume and 2.5% of total industry revenue, according to ABRACERVA. In addition, the Brazilian Beer Industry Association[73] (CervBrasil), which brings together the 3 largest brands in the Brazilian market (Ambev, Heineken and Petrópolis), estimates that the beverage produced by them was responsable for 95% of all Brazilian production in 2017.

Graph 9

BRAZILIAN ANNUAL OF VOLUME VARIATION (%) OF BEER SALES BETWEEN 2010 AND 2017



Source: Nielsen[74].

73 Available at: http://cervbrasil.org.br/

74 Available at: https://www.nielsen.com/pt/pt/insights/news/2018/40-percent-beer-consumed-in-summer.html

In 2017, there was a reduction of 1.7% in total beer sales compared to 2016, when the value of industrial production in the sector reached R$ 55.72 billion, see Table 3. However, according to Nielsen[75] data, industry revenue grew by 1.6% over the same period. Part of this growth was boosted by the 13% growth in premium and handmade beer sales. This fact points to the change in consumption patterns, in which consumers choose to drink less, but with better quality. That is, companies are losing sales volume, since the beverages considered more common are being less consumed, but there is increasing demand for more expensive labels of differentiated beverages.

Table 3

VALUE OF INDUSTRIAL PRODUCTION AND BEER SALES IN 2016 (R$ BILLION)

PRODUCT	VALUE	PARTICIPATION
LIVING OR DEAD YEASTS (INCLUDING BIOLOGICAL YEASTS) AND OTHER DEAD MICRO-ORGANISMS; BREWER'S YEAST	0.71	1.28%
BEERS AND DRAFT BEER	26.91	48.29%
MANUFACTURE OF MALT, BEER AND BEER	28.10	50.43%
TOTAL	**55.72**	**100.00%**

Source: IBGE - Annual Industrial Survey - Product[76].

75 Available at: https://www.nielsen.com/pt/pt/insights/news/2018/40-percent-beer-consumed-in-summer.html

76 Available at: https://sidra.ibge.gov.br

The special beers have contributed not only to the segment itself but also has affected the alcoholic beverage industry as a whole. According to data from Euromonitor Internacional[77] , the consumption behavior of Brazilians have been changing over time and wine has lost space for premium beers and artisans. In 2016, for every liter of wine consumed in Brazil, four liters of premium beer was consumed, in 2011 that proportion was one liter of wine to 2.7 of beer, a 49% increase in five years.

1.3.2. THE INDUSTRY OF WINE

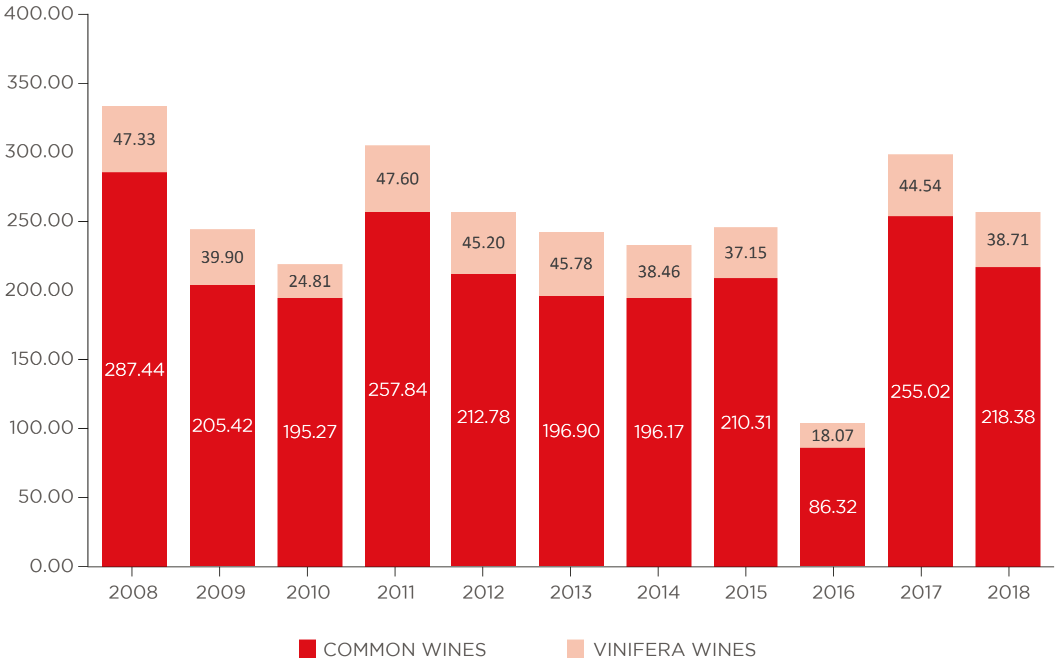
The data from Euromonitor Internacional[78] still indicate that wine is not a product considered essential in the consumption basket of Brazilians and its consumption is directly affected by the economic performance of the country. This behavior reveals that changes in the price of the product or income of the economy directly affect the consumption of the drink. Premium beers have become a substitute for wine, especially during the years 2015 and 2016 when Brazil experienced a severe economic crisis. Graph 10 presents the evolution of Brazilian wine production between 2008 and 2018.

77 Available at: https://blog.euromonitor.com/cervejas-premium-substituem-os-vinhos-no-brasil/

78 Available at https://blog.euromonitor.com/cervejas-premium-substituem-os-vinhos-no-brasil/

Graph 10

BRAZILIAN WINE PRODUCTION BETWEEN 2008 AND 2018 (MILLIONS OF LITERS



Source: Secretariat of Agriculture of Rio Grande do Sul[79].

The national wine production between 2008 and 2018 maintained a balanced trajectory, except for the year 2016, when there was a production about 57.82% lower than in 2015. Climatic events, that impacted Latin American countries more strongly, contributed to a decrease in the world production of grapes. In that year, the value of the industrial production of wines reached more than R$ 1.28 billion, about 58% of the production value of the grape industry, see Table 4.

79 Available at: http://www.uvibra.com.br/pdf/safra_uva2008-2018.pdf

Table 4
VALUE OF INDUSTRIAL PRODUCTION AND SALES OF THE GRAPE INDUSTRY IN 2016 (R$ MILLION)

PRODUCT	VALUE	PARTICIPATION
FERMENTED GRAPE MUST	17.50	0.77%
VERMOUTH AND OTHER WINES OF FRESH GRAPES FLAVORED	38.94	1.72%
BRANDY OF WINE OR GRAPE MARC (BRANDY, BRANDY, ETC.)	55.07	2.43%
REFRESHMENTS, JUICES OR GRAPE NECTARS, READY FOR CONSUMPTION	141.02	6.23%
CONCENTRATED GRAPE JUICE (INCLUDING UNFERMENTED GRAPE MUST)	216.15	9.55%
WINE OF FRESH GRAPES, CHAMPAGNE TYPE	223.83	9.89%
WHOLE GRAPE JUICES	544.88	24.08%
GRAPE WINES, OTHER THAN OF A CHAMPAGNE TYPE	1,025.39	45.32%
TOTAL	**2,262.78**	**100,00%**

Source: IBGE - Annual Industrial Survey - Product[80].

But in the following year of 2017, national production showed signs of recovery and reached 752.50 million liters of the drink, about 150.58% more than the volume produced in 2017. Linked to this increase in production, and as the Brazil's economy began a process of stabilization, there was also a 5.67% increase in wine sales when compared to the previous year, according to the Brazilian Wine Institute (Ibravin). In 2018, the industry already employed around 200 thousand people along its production chain, handled more than R$ 9 billion and had more than 1,100 formalized wineries.

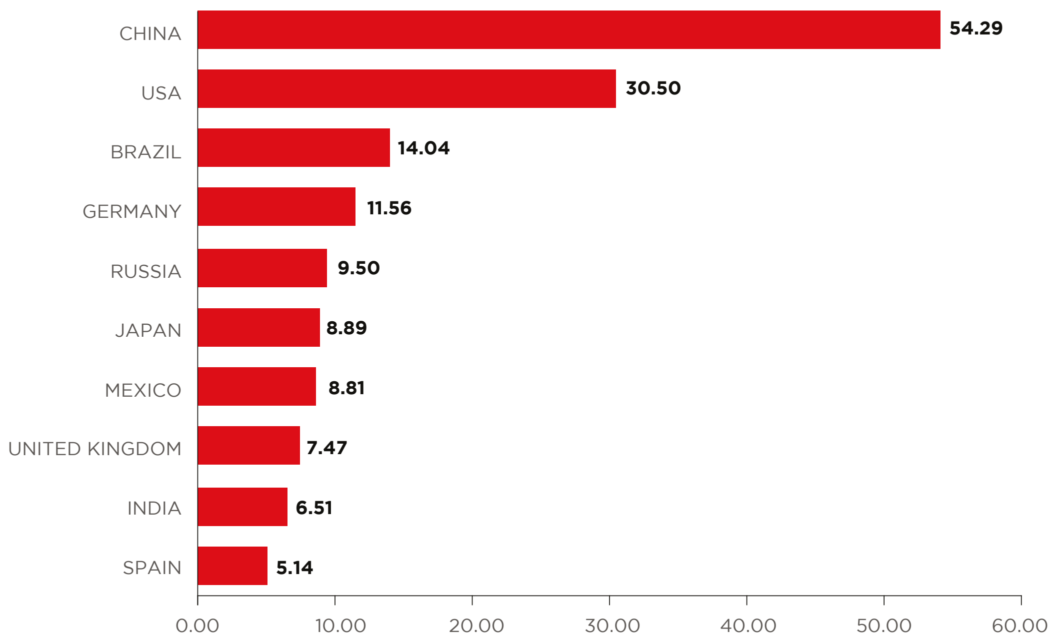
80 Available at: https://sidra.ibge.gov.br

2. BRAZILIAN COMMERCIAL TRADE OF BEER AND WINE SECTORS

Brazil holds the 3rd largest consumer of alcoholic beverages in the world in 2018. The country was only behind China and the United States. Brazilian consumption reached more than 14 billion liters, see Graph 11.

Graph 11

MAJOR CONSUMERS OF ALCOHOLIC BEVERAGES IN THE WORLD IN 2018 (BILLIONS OF LITERS)



Source: Statisa[81].

81 Available at: http://www.foodnewsoficial.com.br

The highlight is for China, the Asian country consumed about 54.29 billion liters of alcohol in 2018. The value consumed by the Chinese is 78% higher than the United States consumption of 30.50 billion liters. Despite being the third ranked in this ranking, Brazilian demand is less than half the demand observed in the United States.

In addition, although China's absolute demand is the largest, when it is considered in per capita terms the country loses positions in this ranking. The United States achieved an average consumption of 93.8 liters per inhabitant in 2018, while for Brazil the volume was 67.8 liters. The Chinese had per capita consumption of 39.3 liters. Germany is the leader of this ranking, the per capita consumption of the European country reached a volume of 140.9 liters of drink per inhabitant in 2018. The magazine BeerArt[82] surveyed the number of awards that Brazilian craft beers received between 2007 and 2017 in the foreign market. In 2007 there were only two awards, but this number grew year-by-year, reaching 255 awards in 2017. This performance has generated more and more visibility for the national beverage and collaborated with the increase of the external demand for Brazilian artisanal beer.

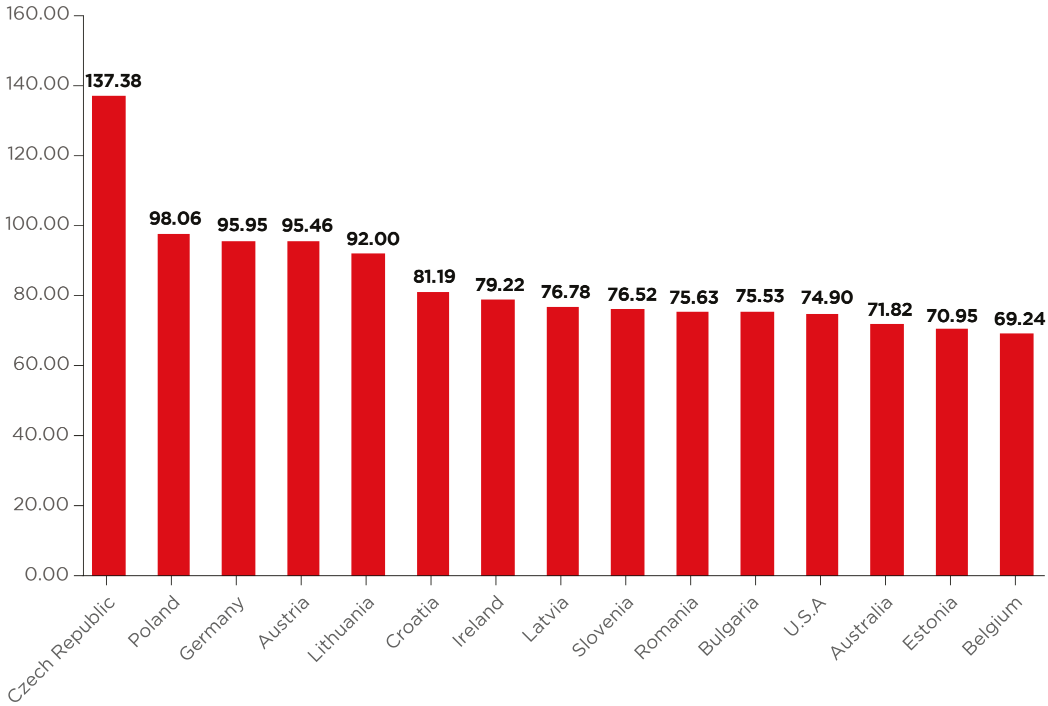
2.1. COMMERCIAL TRADE OF BEER

Both absolute consumption and per capita consumption of alcoholic beverages change between countries. Besides the type of drink consumed also changes according to the geographical location. In the ranking of the largest consumers of beer, for example, the first place is with the Czech Republic, where in 2017 consumed an average of 137.38 liters of beer, see Graph 12.

82 Available at: https://revistabeerart.com/

Graph 12

MAIN CONSUMERS OF BEER IN THE WORLD IN 2017 (LITERS / INHABITANT / YEAR)



Source: Statista[83].

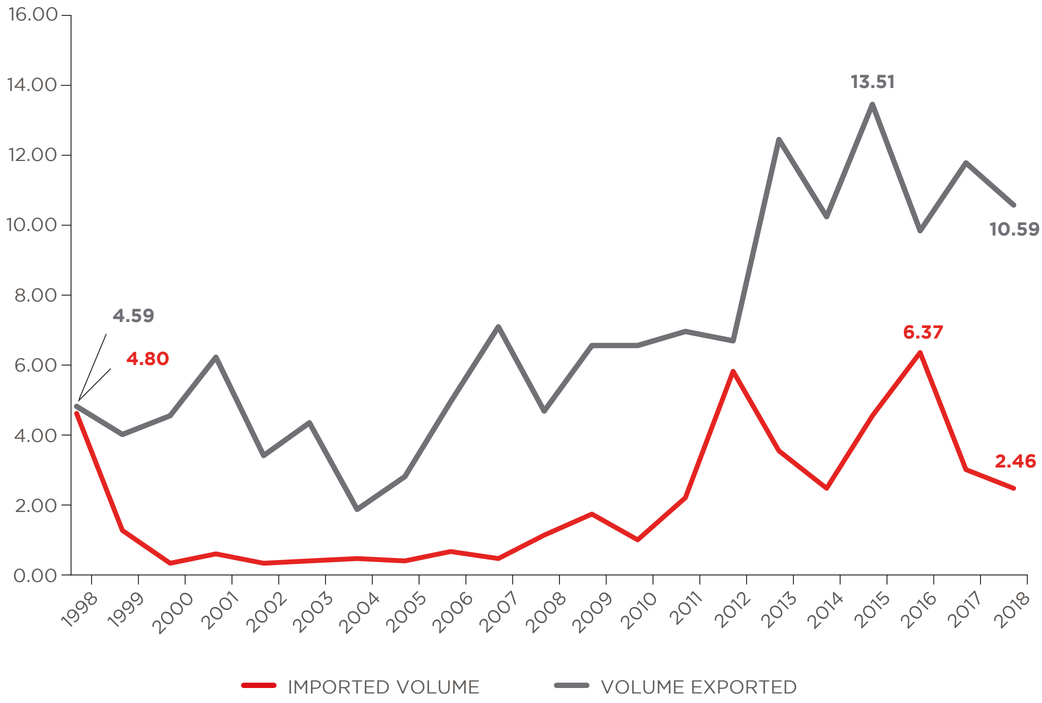
The countries of Eastern Europe dominate the consumption of beer. The United States is in the 12th position of the ranking in 2017, with 74.90 liters per capita. In total, US$ 281 billion was traded in the brewing market in 2017. In the list of the 15 largest world beer consumers, Brazil is not even quoted, despite be the most consumed drink in the country. According to Statista data, the Brazilians consumed, on average, 65.27 liters of the drink in 2017.

In addition, there is a change in consumption pattern in the national beer market. Consumers have traded quantity for quality, giving room for the premium and handmade types of the beverage, fostering the domestic market. Beer exports have also been growing in Brazil, especially since 2014, some peaks can be observed, see Graph 13.

83 Available at: https://www.statista.com/chart/12510/the-countries-drinking-the-most-beer/

Graph 13

BRAZILIAN EVOLUTION OF BEER[84] EXPORTS AND IMPORTSBETWEEN 1998 AND 2018 (THOUSAND TONS)



Source: Comex Stat (2018)[85].

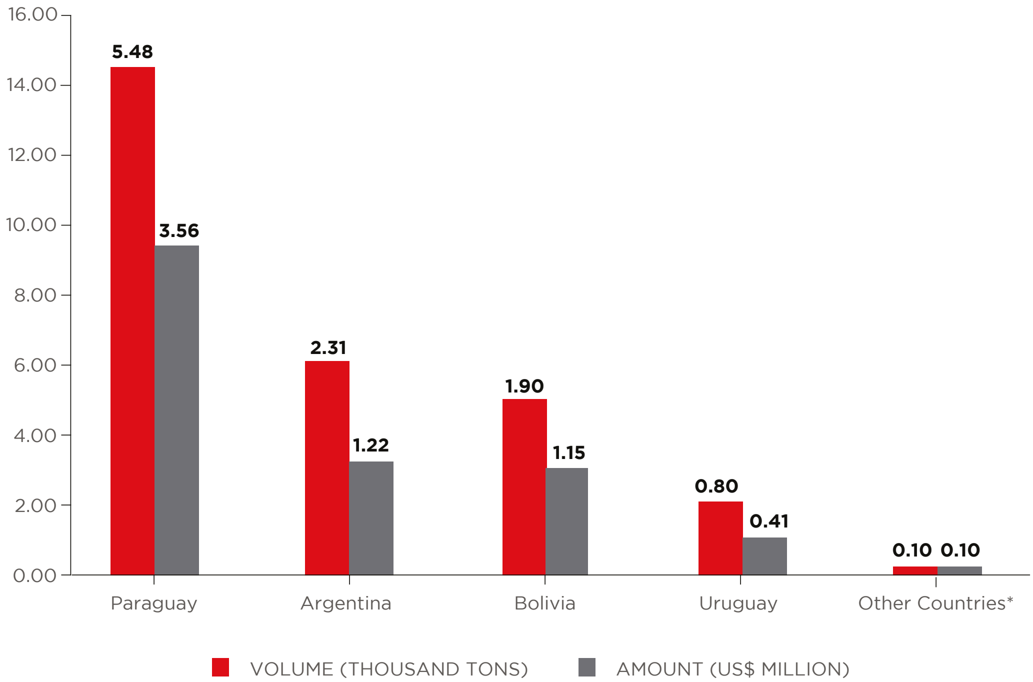
Between 1998 and 2018, Brazil remained in the category of net exporter of beer, reaching its peak of exports in 2015. In 2018 the country exported around 10.59 thousand tons of beer were exported through Brazil. The main destinations were the South American countries. Paraguay, Argentina, Bolivia and Uruguay, that imported almost all the volume exported by Brazil, both in volume and value, see Graph 14. Paraguay, the main destination of the Brazilian beverage, responsable for 51.79% of the volume shipped, representing about 55.26% of the marketed value.

84 The products listed in Annex 1 have been considered

85 Available at: http://comexstat.mdic.gov.br/pt/geral

Graph 14

BRAZILIAN BEER EXPORTS IN 2018 - DESTINATION COUNTRIES (THOUSAND TONS / US$ MILLION)



Source: Comex Stat (2018)[86].

(*) China, United States, Netherlands, Chile and United Kingdom.

2.2. COMMERCIAL TRADE OF WINE

Although not dependent on the external market for beer consumption, the same scenario is not observed for wine. Between 1998 and 2018, the trade balance of the beverage derived from the grape has been deficient. Brazil not only imports more than exports, but imports have been increasing over the years, see Graph 15.

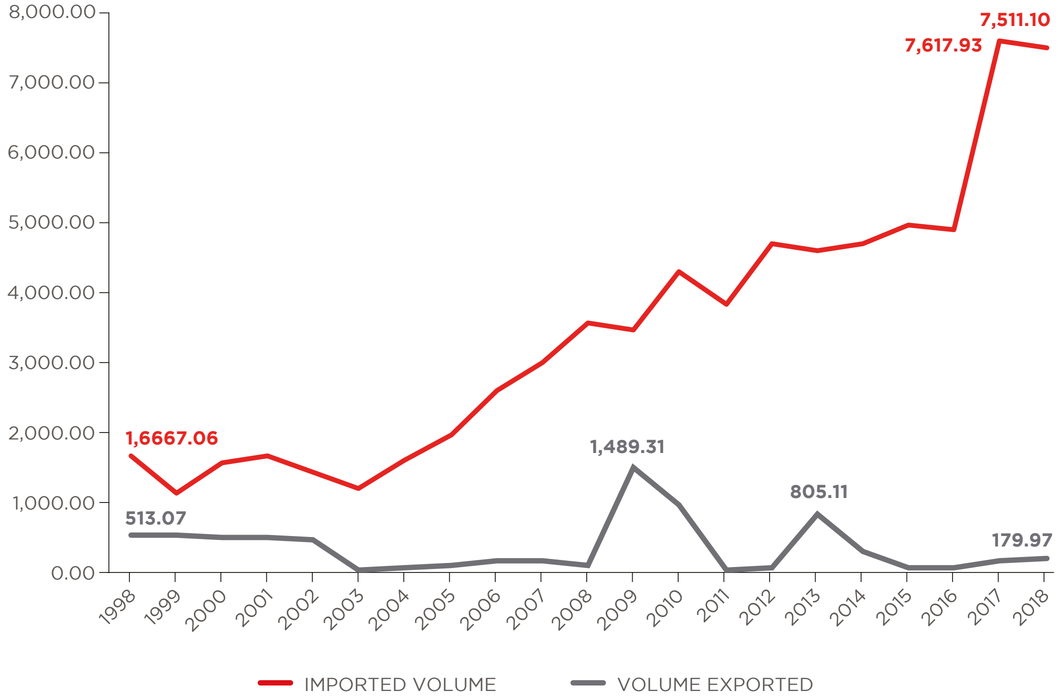
86 Available at: http://comexstat.mdic.gov.br/pt/geral

Despite the large volume of wine imported by Brazil, in 2018 the country was the 15th largest producer in the world and the fifth largest in the Southern Hemisphere, according to the International Organization of Vine and Wine (OIV)[87]. The country produces about 225 varieties of grapes responsible for the production of various types of wine. Brazilian wine products are present in 59 countries and on 5 continents and about 90% of the volume exported originates in Rio Grande do Sul.

In 2018, Brazilian wine exports grew by 29.62% in volume and 19.67% in value, compared to 2017. Meanwhile, for the same period, there was a decrease of 1.40% in volume and an increase of 6.65% in value of the imports of the product.

Graph 15

BRAZILIAN EVOLUTION OF WINE EXPORTS AND IMPORTS BETWEEN 1998 AND 2018 (TONS)



Source: Comex Stat[88].

87 Available at: http://www.oiv.int/

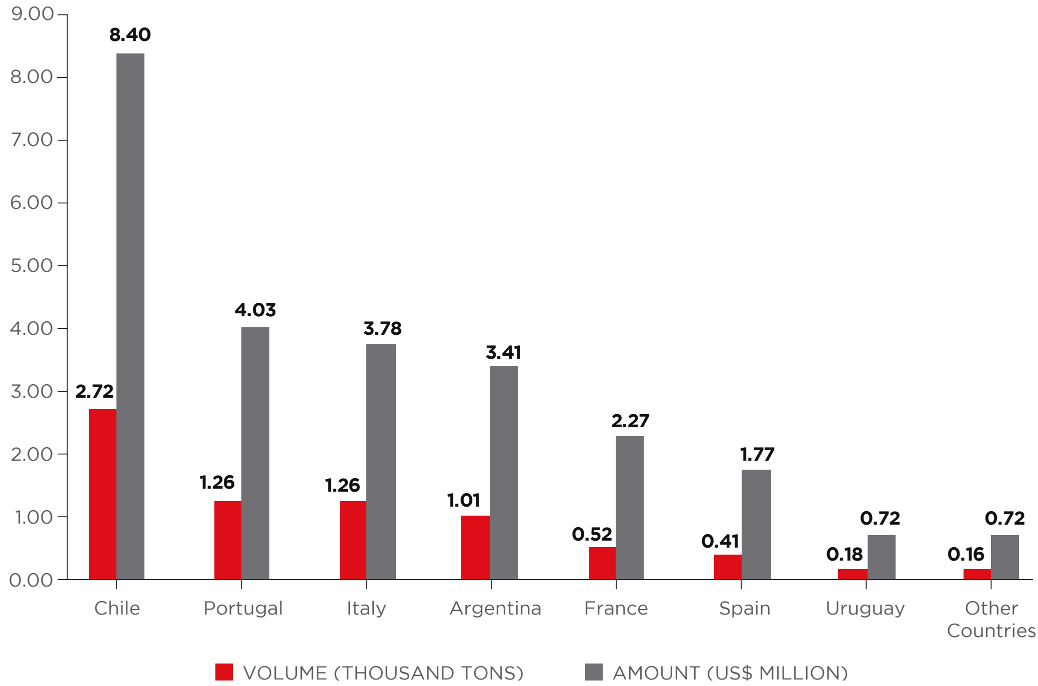
88 Available at: http://comexstat.mdic.gov.br/pt/geral

The volume of imported wine far exceeds the sector's exports. While between 1998 and 2018, exports fell by 65%, imports in turn had a significant growth of more than 350%.

Much of this imported volume comes from Chile. The South American country provided more than 30% of the volume and value of Brazilian wine imports, see Graph 16. In addition, Chile, Portugal, Italy, Argentina and France were the countries responsible for the largest volumes imported by Brazil. Together these five countries were responsable for about 90% of the volume and 87% of the value of the wine demanded by Brazil.

Graph 16

BRAZILIAN IMPORTS OF WINE IN 2018 - COUNTRIES OF ORIGIN (THOUSAND TONS / US$ MILLION)



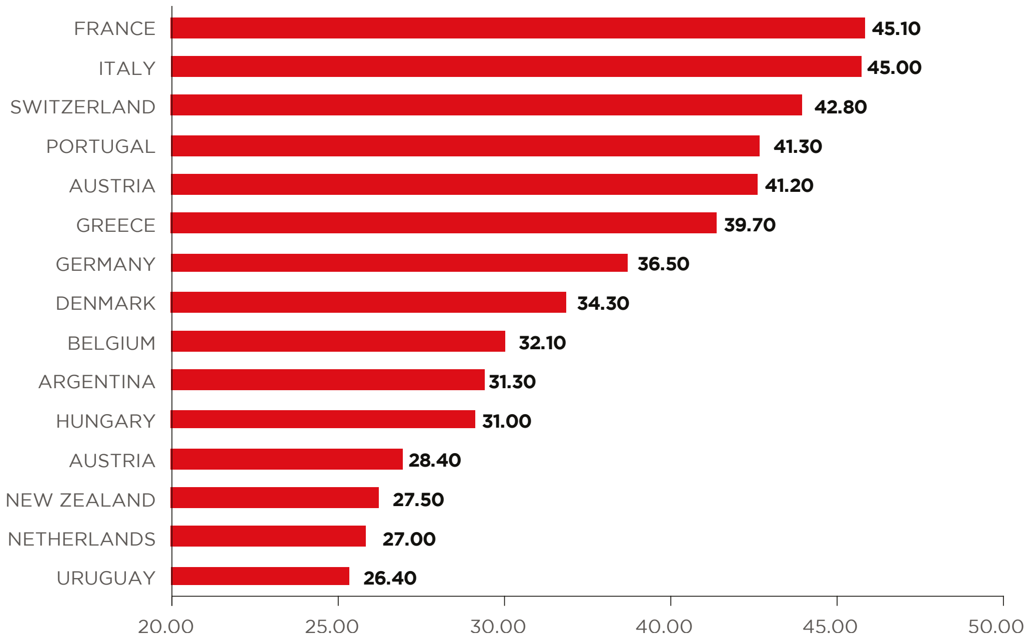
Source: Comex Stat (2018)[89].

89 Available at: http://comexstat.mdic.gov.br/pt/geral

Among the countries that compose the ranking of the main exporters of wine to Brazil, some are also great consumers of the drink. Portugal, Italy, Argentina and France are among the ten largest consumers per capita in the world, see Graph 17. In 2018 the consumption of these countries exceeded 30 liters per capita. France leads this ranking, the European country had a per capita consumption of 45.10 liters in 2018.

Graph 17

CONSUMPTION OF WINE PER CAPITA IN THE MAIN CONSUMING COUNTRIES, IN 2018 (LITERS / INHABITANT / YEAR)



Source: Statisa[90].

The volume consumed by the French is very close to that consumed by Italy. Switzerland. Portugal and Austria include the top five global consumers. In addition, Argentina is the only South American country in the ranking of the 10 largest consumers, the country had per capita consumption of 31.30 liters.

90 Available at: http://www.foodnewsoficial.com.br

3. BARRIERS TO THE COMMERCIALIZATION OF BEER AND WINE FROM BRAZIL

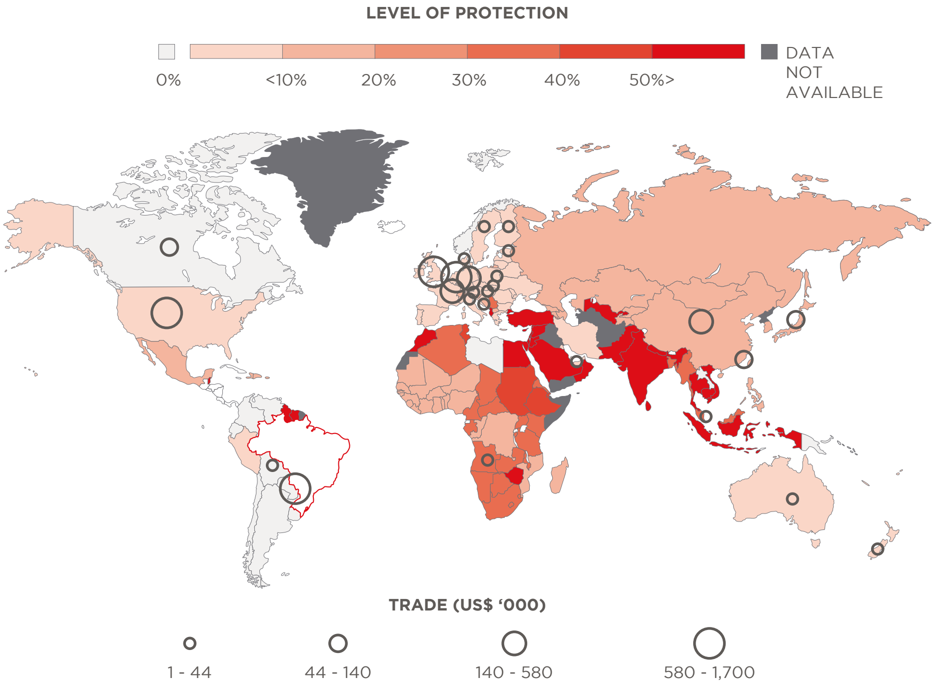
For the wine consumer market, the foreign predominance reached the mark of 86.3% at the end of the first half of 2017, the highest index in the last eight years. The national beverage was the remaining 13.7%, according to data from Ibravin. In 2011, imports were responsable for about 78.8% of the Brazilian consumer market, while nationals for about 21.2%.

The advance of imports raises concerns for the sector, since, according to data from Ibravin, more than 85% of the volume imported are products worth less than US$ 4.00, and the largest quantities are brought by large retail chains. In addition, domestic products collect much more taxes on production than imported products, generating an imbalance within the sector. In addition to the retail chains, traditional importers/distributors and a group of Brazilian wineries also have higher tax advantages than buying products from abroad.

In addition, in 2018 at least 173 countries imposed tariff barriers on wine with Brazilian origin, see Figure 1. The presence of these barriers was stronger mainly in Egypt, but also in countries such as India, Indonesia and Saudi Arabia.

Figure 1

SIZE OF TRADE AND LEVELS OF PROTECTION APPLIED TO BRAZILIAN WINE IN THE INTERNATIONAL MARKET IN 2018



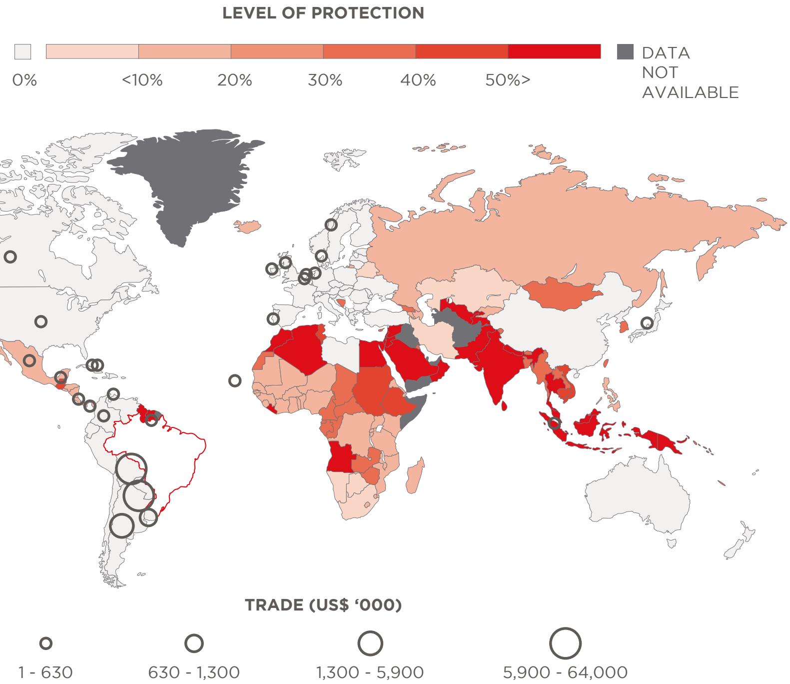
Source: Adapted from Macmap (2018)[91].

Comparing the international trade of wine and beer of Brazilian origin, beer is taxed by a smaller number of countries. In 2018, 134 countries imposed some tariff restriction on beer originating in Brazil. The highest tariffs were imposed by countries in Africa and Asia.

91 Available at: http://www.macmap.org/QuickSearch/FindTariff/FindTariff.aspx

Figure 2

SIZE OF TRADE AND LEVELS OF PROTECTION APPLIED TO BRAZILIAN BEER IN THE INTERNATIONAL MARKET IN 2018



Source: Adapted from Macmap (2018)[92].

92 Available at: http://www.macmap.org/QuickSearch/FindTariff/FindTariff.aspx

ATTACHMENT 1

PRESENTATION AND DESCRIPTION OF PRODUCTS ANALYZED ACCORDING TO ITS SOUTHERN COMMON NOMENCLATURE - NCM

CODE NCM	DESCRIPTION NCM
22030000	Malt beers
22029100	Light beer
22042100	Other wine, grape must, fermented, alcohol-restricted, in containers holding 2 liters or less
22041010	Sparkling wines and sparkling wines, champagne type (champagne)
22041090	Other wine of fresh grapes, sparkling and sparkling
22042211	Wines in containers holding 5 liters or less
22042910	Wines in containers holding more than 10 liters
22082000	Spirits of wine or grape marc
22042219	Wines in containers holding more than 5 liters
22042911	Wines in containers holding 5 liters or less
22042919	Wines in containers holding more than 5 liters
22042900	Other wine, grape must, fermentation prevented by the addition of alcohol

ATTACHMENT 2

LIST OF ABBREVIATIONS

ACRONYM	DESCRIPTION
ABIA	BRAZILIAN FOOD INDUSTRY ASSOCIATION
ABIR	BRAZILIAN ASSOCIATION OF SOFT DRINKS AND NON ALCOHOLIC BEVERAGES INDUSTRIES
ABRACERVA	BRAZILIAN ASSOCIATION OF ARTISAN BEER
CERVBRASIL	BRAZILIAN BEER INDUSTRY ASSOCIATION
CONAB	NATIONAL SUPPLY COMPANY
EU	EUROPEAN UNION
GDP	GROSS DOMESTIC PRODUCT
IBGE	BRAZILIAN INSTITUTE OF GEOGRAPHY AND STATISTICS
IBRAVIN	BRAZILIAN INSTITUTE OF WINE
IPCA	BROAD CONSUMER PRICE INDEX
MAPA	MINISTRY OF AGRICULTURE, LIVESTOCK AND FOOD SUPPLY
NCM	SOUTHERN COMMON NOMENCLATURE
OIV	INTERNATIONAL ORGANIZATION OF VINE AND WINE
PAC	ANNUAL TRADE SURVEY
PIM	MONTHLY INDUSTRIAL SURVEY
USDA	UNITED STATES DEPARTMENT OF AGRICULTURE
VBP	GROSS VALUE OF PRODUCTION

FGV PROJETOS

FGV EUROPE PROJETOS

RIO DE JANEIRO
Praia de Botafogo 190/6º andar
Tel.: +55 21 3799.5498
Fax.: +55 21 2553.8810

SÃO PAULO
Av. Paulista 1294/15º andar
Tel.: +55 11 3799.4170
Fax.: +55 11 3262.3569

www.fgv.br/fgvprojetos