

# COMPARISON OF WINE PRODUCTION AND CONSUMPTION: CASE STUDY OF SLOVAKIA AND CZECH REPUBLIC

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## Abstract

*Wine production has a long tradition over the years and significant position in many countries in central Europe. Nowadays, in terms of stable production & customer demand, it is very difficult to build strong competitiveness and attractiveness. The main objective of this paper is exploring the comparative study of wine production and consumption in a Slovakia and Czech Republic. Furthermore, this paper presents the wine situation from macro view and impact on domestic and foreign markets. A comparative study based on the past development and current situation. All data were obtained from statistical databases and green reports. Nowadays, Slovak and Czech's winemakers produce wines of the high quality with a fair price. Last 20 years wine consumption has a slightly rose in both countries. However, wine production is insufficient for the domestic market and wine is needed to be imported from abroad. Hence, the paper focuses also on a recommendation for a better position on the wine market in Slovakia and Czech Republic. The added value of the comparative study is significant to understand the causes of the wine production situation and consumption of wine products at the markets.*

**Keywords:** Czech Republic, comparison, consumption, Slovakia, wine production

**JEL Classification:** E 21, E23

# 1 Introduction

Wine culture has significant position in the economies of several countries. It is closely linked with economy of country and moreover it fulfils the regional potential of country in traditional growing of wine grapes and cultural development of population. Anderson et al. (2003), Anderson & Nelgen (2011), Mariani et al. (2012) think that last decades have been important for wine. This commodity has become global consumed product, which influences traditional vinicultures and consumers by its being. Global wine production in 2016 according to OIV, (2016) is estimated at 267 mhl., where European Union remains by far the world's largest market as well importer and exporter (Italy, France, Spain, others European countries), and countries of New world (USA, China, Chile, South Africa, Australia, New Zealand). Each country has its own differences in volumes from one harvest to another, nevertheless the world's consumption of wine is in position of inferior in comparison with world's production. This leads to accrued compression on wine producers to face the problems with grow and development of market. Remaind & Couderc (2006), Resnick (2008) point out that countries of so-called "Old world" are focused on production, whereas countries of "New world" are concentrated on marketing and sales. Svobodová, Věžník, Král (2014) argue that in a wine producing countries can be seen that there are qualitative changes in wine-producing sector. One of all questions is the core of consumer's problems. They have started to put the importance on preferring background in certain area or name of wine-producer. Consumers became picky and they started to care less of a price. This change of consumer's behaviour to traditional or typical groceries we can see even in recent agricultural literature, which was explained by Barham (2003). On the other hand, some of the consumers decide to buy rather cheaper and the same quality wine from New World countries in comparison with European wines. Wine culture has transformed, in all over the world measurement, from quantitative to qualitative production (Dougherty, 2003; Jones, 2003; Pitte, 2004; Tomšík a Prokeš, 2011). As Rebič and Horská (2017) claim, wine is very important product for Slovak Republic, which is traded and is exported commodity annually. They state another aspect as well. In their opinion, wine is not only product honoured from historical point of view, but the resuming history and traditions of Slovak heritage as well. Slovakia is known for huge amount of small local wine producers, who compete against the international corporations. They are able to compete with their wine quality and long-term fame and brand on domestic and international market as well. It is expected that the quality of Slovak wines will be part of the best wines in Europe. The pressure on domestic wine producers for high-quality production and care for grapes develop increasing demand for

high-quality wines and availability of wide range of foreign wines (Svobodová, Věžník, Král, 2014). On the other hand, Prokeš & Tomšík (2012) claim that Czech wine industry has gone through several reforms and it has moved from quantitative production to qualitative for recent twenty years. Šrédl, Kučírková and Svoboda (2017) affirm high quality of Czech wines, which are accomplished by being successful at international competitions.

## **2 Data a methodology**

Methodology is based on the description of wine sector's situation in Slovakia and Czech Republic. This paper is focused on evaluation of differences in wine sector, to be concrete, the way of growing wine grapes and wine production. Another topic of this paper is to identify consumer's preferences in countries in neighbourhood. Identification of this development in certain time period should allow countries to be more self-sufficient in wine production and satisfy consumer's needs on the domestic market. On the basis of this analysis we are able to define Slovak and Czech producer's position on the wine market. A significant part of sources we gained from domestic as well as foreign literature and specialized researchers. As a source of information about wine growers and their products, we can use reports from Ministries of Agriculture (Green Report in Slovakia, Green Report in the Czech Republic).

Within the scope of this paper we used these methods:

- Analysis: it helps us to divide the whole into smaller pieces, where we can go deeper into researched problem and we can find indicators, which influence given thing
- Synthesis: it comprehends facts gained from used analysis and execute recommendations for future better development
- Comparison: it finds out the position of single factors in a certain time period and its possible changes in time and place.

Results will become a basis for processing recommendations to improve Slovak viniculture's position on the domestic and foreign market.

## **3 Results and discussion**

### **3.1 Viticulture in Czech Republic**

Czech Republic is a wine country, which is situated in central Europe. It belongs to wine countries of Old World, which have a long-term tradition in wine

production, not only from the high-quality aspect. These wines are made of grapes, which are grown in the most northern wine fields. In Czech Republic, wine is represented by less than 2 % from all agricultural production. Bohemia and Moravia represent a primary division of winery fields. Moravia is created by four sub-fields: Znojmo, Slovácko, Velké Popovice, Mikulov. These sub-fields include 312 vinicultural communities. Bohemia consists of 2 wine regions: Mělník and Litoměřice, which include 66 vinicultural communities.

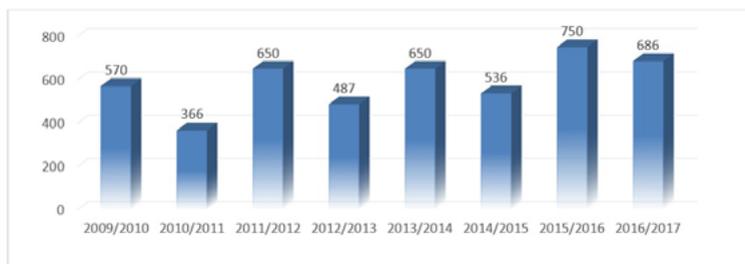
Based on the data Green report published MoA (2017), managed wine area in the year 2016 represented almost 17,7 thousand ha, while actual productive potential was at the level of 18,5 thousand ha. From the wineries age structure point of view, there has been a significant increase of the fraction of new areas to 19 % (3128,60 ha) since 2004. The impact on this fraction has an application of rights to repeat out planting of wineries. Old wineries, which are older than 50 years, cover only 2 % from overall wine area. The change of conditions of winery planting in Czech Republic brought an entry into European Union on 1st May 2004, i.e. new wineries can be replanted only after deracination or acquiring rights to replant winery again.

Czech Republic is engaged in a program for vinicultural support. It is financed by European Union. In years 2014-2018 wine producers have been donated by more than 700 million Czech crowns. This support may be conducive to increase of competitiveness of Czech wines on the international market and change of traditional way of growing wine into bio-growing.

In accordance to Svodobová, Věžník, Král (2014), formal way of growing grapes has changed significantly for 5 years into an integrated system. This enlargement can be seen mostly in Morava, where the fraction of organic vineyards. They have been enlarging for whole period of time very quickly.

Figure 1 shows a development of wine production in Czech Republic in period of 2009 - 2016. In comparison, domestic production increased by 20,4 % in this period, while the study of Ministry of Agriculture says that production dropped by 8,5 % in recent years. This was caused by unfavourable weather. From the whole production of wine, there is two-thirds of white wine and one-third of red wine in Czech Republic. The majority on produced wine is guarded with the background and geographical mark.

Figure 1 Wine production in the Czech Republic in thousand hl.

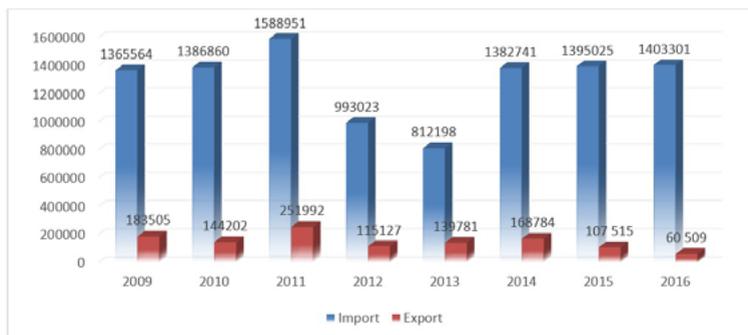


Source: Ministry of Agriculture CR (2017), own calculation.

Consumption of wine in the Czech Republic is more and more popular. Modern and healthy lifestyle causes an increase in the consumed wine, while it is generally agreed as beneficial. Consumption of domestic wines has become dominant. In 2008, the consumption was at a level of 16.3 litres per capita. The wine was consumed in the past only sporadically. For instance, after WWII, the consumption was only 6 litres per capita. Since that time, the Czech Republic has marked a positive trend, which has reached the level of 20 litres per capita. (Czech Statistical Office, 2016). As the Syrovátka, Chládková & Žufan (2014) claim, the reasons for greater consumption could be seen in the change of lifestyle. It was all interconnected with the slump of spirits with a higher percentage of alcohol. On the other hand, the white wines (Veltínské zelené, Müller-Thurgau) and red wines (Frankovka, Svätovavřinecké) have become famous among the domestic population. The elementary assumption for the sustainable growth is continuously increasing quality of wine and using of technologies, which might change applied wine properties. Motivation for improvement of consumption's position may be the significant interest into wineries where the consumers may find extraordinary aspects of wine and viticulture.

Export of domestic wines was almost none after the integrating the Czech Republic into the European Union, it happened because of new rules for neighbours, e.g. business quota and fees. When we reached the membership of the EU, the Czech market was enriched with cheap wines from Portugal and Spain. Tomšík and Sedláčková (2013) define the Czech Republic as a country where the wine is produced and it is dependent on imports of grapes. They also state the fact of higher imports than exports of domestic wines. Within the scope of exports of Czech wines in 2016, the Czech Republic exported a maximum of 28 995 hectolitres to Slovakia and to Poland they exported wine in an amount of 12 794 hectolitres. The Czech Republic imported the majority of wine from Spain.

Figure 2 Export and import of wines in the Czech Republic 2009 - 2016



Source: Ministry of Agriculture CR (2017), own calculation.

According to Kučerová (2014) the wine sector of the Czech Republic is characterized by the surplus of domestic consumption over domestic production. As a consequence, there is a ban on enlarging the EU production to cast overboard the space between production and consumption with own resources. The development of the foreign market proves that the country should not give up on the export of Czech wines abroad, while the trend of import and export is continuously growing.

### 3.2 Situation in Slovakia

In the past, Slovakia was focused more on quantity than quality. Production of low-class wines caused stagnation in interest for Slovak wine and it was shown in the development of production as well. Hronský (2002) states that in present times the production of wine is quite spread and popular. Ambitions of domestic wine producers are increasingly greater, while they see demand for wine. In Slovakia we have six wine-producing regions; mainly on the South: Small Carpathian, Nitra, South Slovak, Central Slovak, East Slovakia and Tokaj. Wine regions are defined by borders and their own specific properties of soil and wine cultivation.

The development of viticultural areas has been changing for all time. In accordance with Kádeková, Nagyová and Dobák (2010) the main priorities of the EU include the development of viticulture. As a consequence of this development, there may have been an increased competitiveness of wine producers in the EU and a balance of demand and supply on the European market. Rebič and Horská (2017) state that when we became part of the EU in 2004, there was a change in some processes on the wine market. This was meant to be done by deregulation of mercantile barriers and intersection

of other European countries and in this way to be able to be competitive with cheaper wines with lower quality in domestic market. Slovak wine producers took an advantage in using of innovative technologies and respect remedies of EU. They are concentrated on production of quality wines, which are distinguished with typical territorial properties of vinicultural areas.

**Table 1 Development of harvest areas of native vineyards, production and average yield**

Year	Vineyard area (ha)	Production (t)	Average yield (t/ha)
2004	12 003	56 537	4,71
2005	13 130	54 103	4,12
2006	11 781	52 037	4,42
2007	11 507	49 142	4,27
2008	9 650	51 617	5,35
2009	9 340	42 131	4,51
2010	8 152	21 120	2,59
2011	9 930	49 015	4,94
2012	10 492	52 209	4,98
2013	10 039	53 227	5,3
2014	8 757	38 450	4,4
2015	8 803	50 158	5,7
2016	8 712	37 832	4,34

Source: Slovak statistical office SR, (Pol 18-01).

In accordance to Statistical Office of Slovak Republic, the harvesting area, production and average yield per hectare have decreased. In a comparison of years 2004-2016 it is drop for 27,4 % of harvesting area and reduction of production for 33 % tons of grapes. Yet, the decrease of production was influenced not only by amount of harvested hectares, but by the amount of yield as well. Executive director of Wine-dresser association and wine-growers of Slovakia, Pátková (news, 2017) argues about the problem of Slovak viticulture. She defined it as unsorted lands even though, there is still interest for planting in grapes. The second problem, she thinks so, is import of wine, while it is filled in Slovakia and sold as Slovak wine. Average yield during the controlled period of time expressively varied 4,5 t/ha, however, these changes were influenced by the weather during the year. According to Matošková & Gálik (2014), the cut-down of cropping areas during this time period has had an impact on decay of few enterprises, which were focused

on growing wine grape in Slovakia. According to Kádeková, Nagyová and Dobák (2010), Slovakia has almost none profitability without subsidies. The reasons are intensive price policy of cheaper wines from Southern European countries. Costs and prices should have achieved 30 to 40 % of vintage.

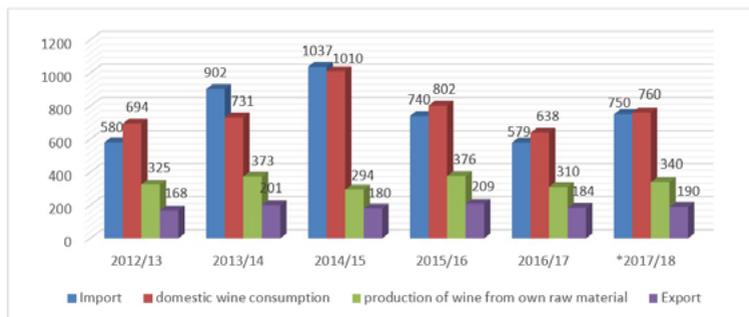
Table 2 **Wine consumption in Slovak Republic (l)**

	2009	2010	2011	2012	2013	2014	2015	2016
<b>Wine consumption</b>	69 055	71 977	71 608	69 399	73 129	100 967	80 210	-
<b>Consumption per capita</b>	12,7	13,2	13,3	12,8	13,5	18,6	14,8	13,9

Source: Slovak Statistical office, 2017.

Kučerová (2014) divides the Slovak wine consumers into two main groups. The first group is characterized by price sensibility, who prefer attractive price over the quality of wine. Consumers, who belong to this group, are in lower income class and they would rather buy cheaper table wine from abroad. Based on the data from Slovak wine producer's Union, the domestic consumption is approximately 50 %. The second group is more oriented on quality of vinicultural products. These customers prefer high-grade wines made by first-line wine producers.

Figure 3 **Sources and consumption of wines in Slovakia (th. hl.)**



Source: Situational and forward-looking report Grapevine and wine, own calculation, 2017.

\*estimation

Slovak consumer of wine has increased the consumption of 1,2 litre for 8 years. The greatest increase was recorded in 2014, it was to the amount of 18,61

litre per capita. The consumption in year 2016 (13,9 litre) is not at the average of European Union. The average consumption has been decreasing and import has been achieving more significant position than stagnated export to countries beyond European Union. General consumption of wine is still higher than domestic production, which is compensated by import to Slovakia. On the other hand, almost half of domestic production is exported to other countries.

## 4 Conclusion

Based on the results we may evaluate, that vine-growing and wine production in Slovakia and Czech Republic have marginal importance for a national economy. However, for many wine-growing areas, wine production is linked to local history, traditions, and lifestyle and greatly contributes to rural development. In case of Czech Republic, when it became a member of EU the production potential rose to 18,5 thousand per hectare (overall vineyards area 17,7 th. ha) and increase of new vineyards up to 19 % of whole area. Domestic production of wine decreased to 487 thousand hectolitres in year 2012. Another season, production increased up to 650 th. hl and in year 2016/2017 up to 686 th. hl. The whole area of vineyards is represented by 10 800 ha in Slovakia, the harvested proportion is 8 872 ha and not harvested 1928 ha. The harvested area dropped (- 91 ha), the production dropped (- 12 326 t) and also the average yield (- 1,36 t.) Problem of production fluctuation is mainly the weather, which many times makes the situation worse for wine-growers. Wine production is not sufficient for whole domestic consumption, nevertheless, the majority of enterprises has adopted the strategy of increasing quality. That is the reason why these high-quality wines became popular among the domestic consumers as well as ones from abroad. Qualities of both countries in wine producing are shown in regular achieving on the top positions in several international competitions all over the world. Czech Republic has a better out-coming position than Slovakia, whereas the yearly consumption is about 20,1 litres per capita. It is 6,5 % less than Slovakia has. Demand for wine is dependent on the age of consumer, lifestyle, education, geographic position or tradition. General consumption of wine is still higher than domestic production, which is compensated by import to both countries. Nevertheless, factors influencing buying behaviour is a price of product and availability of substitutes or more precisely cheaper alternative of product. Detailed analysis of import and export are necessary for the improvement of decision-making process among the producers in Slovakia and Czech Republic. This is needed for better and easier choice in a fragmented market; both domestic and global. It all should support promotional events, attendance at international vinicultural fairs.

For further improvement and development of vinicultural position we recommend:

- planting of new vineyards and support of new wine-growers support programme,
- easier rules and bindings to strengthen position of agriculture and environmental arrangements to support agrarians,
- increase competitiveness of high-quality domestic wines on international market,
- increase the proportion of domestic wines through merchandise and increase education of wine consumers,
- improvement in bargaining power while buying inputs for production,
- improve comparative advantage in processes: costs, type, quality, design, distributive canals,
- innovation of technological processes and technologies used for wine preparation,
- more expressively support quality of Slovak and Czech wines on the domestic market and present them abroad.

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