

**CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE  
FACULTY OF ECONOMICS AND MANAGEMENT  
DEPARTMENT OF TRADE AND ACCOUNTING**



**ANALYSIS OF WINE TRADE IN THE CZECH REPUBLIC  
DIPLOMA THESIS**

**Author of the diploma thesis: Bc. Veronika Vološčuková**

**Supervisor of the diploma thesis: Ing. Olga Regnerová**

**© Prague 2012**

# CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Department of Trade and Accounting

Faculty of Economics and Management

## DIPLOMA THESIS ASSIGNMENT

Vološčuková Veronika

Economics and Management

Thesis title

**Analysis of Wine Trade in the Czech Republic**

---

### Objectives of thesis

The aim of the thesis is to provide an overview and evaluation of wine trade in the Czech Republic and to accept or reject the hypothesis that wine trade in the Czech Republic is expected to grow. Supplementary aims of the thesis are identification of trends in international wine trade and suggestions concerning the Czech wine producers competitiveness.

### Methodology

Literature and other available resources would be the main references in the theoretical parts of the thesis. In the practical part trend function and other methods for data comparison would be used. Illustration of the findings would be done by graphs.

### Schedule for processing

1. Introduction	07.2011
2. Aim and methodology	07.2011
3. Literature overview - wine trade	12.2011
4. Analysis	
5. Evaluation	
6. Conclusion	01.2012
7. Bibliography and references	
8. Supplements	

### The proposed extent of the thesis

60 - 80 pages

### Keywords

export, import, consumption, production, price, trends, consumer, packing, quality

### Recommended information sources

KALÍNSKÁ, E., PETŘÍČEK, V. a kol.: Mezinárodní obchod 1, VŠE, Nakladatelství Oeconomica, 2006  
MACHKOVÁ, H. a kol.: Mezinárodní obchodní operace, Grada, 2009  
SVATOŠ, M. a kol.: Zahraniční obchod, teorie a praxe, Grada, 2009  
ŠTĚRBOVÁ, L.: Zahraničně obchodní politika ČR a její integrace do EU, Vydavatelství Aleš Čeněk Plzeň, 2009  
THOMSON H.: International Economics, Global Markets and Competition, World Scientific Publishing Co. Pte. Ltd., Singapore, 2006  
SPAHNI, P.: The International Wine Trade, Woodhead Publishing, 2000  
ČSÚ zahraniční obchod on line

### The Diploma Thesis Supervisor

Regnerová Olga, Ing.

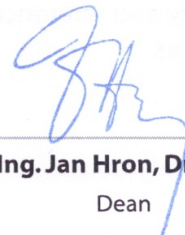
### Last date for the submission

březen 2012



**doc. Ing. Antonín Valder, CSc.**

Head of the Department



**prof. Ing. Jan Hron, DrSc., dr.h.c.**

Dean

**Prague March 15. 2012**

**DECLARATION:**

I declare that I have worked on the Diploma thesis on my own using the referenced literature and other resources.

Prague, 31<sup>st</sup> March 2012

.....

### **ACKNOWLEDGEMENTS:**

I would like to thank to Ing. Olga Regnerová for her advice and worth suggestions when working on the Diploma thesis.

# **ANALYSIS OF WINE TRADE IN THE CZECH REPUBLIC**



## **SUMMARY**

The subject matter of the Diploma Thesis is the wine trade in the Czech Republic. At first is the issue approached from a global view point concentrating on the historical development of the trade, identification and evaluation of trends and recent key players. When moving to the Czech wine trade, the main focus is dedicated to Czech exports, imports and their balance after year 2005 and the entry of the Czech Republic to the European Union. Wine trade has rapidly grown in the last years in the Czech Republic, especially the imports. Also Czech consumption of wine is increasing despite the fact that consumption of other alcoholic beverages in the Czech Republic falls as well as the global alcohol consumption. Such decrease is said to be a consequence of a new and healthier approach to life. This trend together with the other current market trends is provided in order to serve as a suggestion for Czech wine producers on how to increase their competitiveness.

## **KEY WORDS**

export, import, consumption, production, price, trends, consumer, packing, quality

## **SOURHN**

Diplomová práce se zabývá problematikou obchodu s vínem v České Republice. V první řadě řeší tuto problematiku z globálního hlediska a zaměřuje se na historický vývoj, identifikaci trendů a hlavní hráče na trhu. Poté už se věnuje situaci v České Republice a zabývá se především vývozem, dovozem a bilancí trhu od roku 2005 po vstupu České Republiky do Evropské Unie. Obchod s vínem v České Republice v posledních letech výrazně roste, závratnou rychlostí zejména dovoz. Také spotřeba vína roste navzdory tomu, že pro všechny ostatní alkoholické nápoje klesá, stejně tak jako klesá i celosvětová spotřeba alkoholu. Za důvody toho poklesu bývá označován nový a zdravější přístup k životu a tedy i s ním spojený pokles konzumace alkoholu. Tento trend spolu s dalšími současnými trendy, které jsou v práci analyzovány, by měl posloužit českým vinařům jako návod na zvýšení jejich konkurenceschopnosti.

## **KLÍČOVÁ SLOVA**

vývoz, dovoz, spotřeba, produkce, cena, trendy, spotřebitel, balení, kvalita

## CONTENT

---

1	Introduction .....	2
2	Aim and Methodology .....	4
3	Literature overview – wine trade .....	5
3.1	Origin of grapevine and development of wine making .....	5
3.2	The Global Wine Trade .....	8
3.2.1	Wine – terms and definitions .....	8
3.2.2	Global wine trade .....	9
3.3	Wine trade in the Czech Republic .....	25
3.3.1	History of wine in the Czech Republic .....	25
3.3.2	Current situation in the Czech Republic .....	36
3.3.3	Czech import .....	43
3.3.4	Czech export .....	48
3.3.5	Summary on international wine trade in the Czech Republic .....	51
4	Analysis .....	53
4.1	Analysis of beverage consumption .....	53
4.2	Wine consumption in the CR & consumer behaviour .....	57
4.3	Market trends .....	63
5	Evaluation .....	72
6	Conclusion .....	75
7	Bibliography and References .....	76
8	Supplements	



# 1 INTRODUCTION

---

Wine is a traditional alcoholic beverage made from fermented grapevine juice with long history in the Czech Republic. Over the years it always stood in the shade behind the well-known and Czech most favourite alcoholic drink – beer.

Now it seems that the positions would turn round soon. Wine consumption in the Czech Republic is increasing, as for the only segment of the Czech alcoholic beverage market. Beer consumption is on a decline and the consumption of spirits for year 2011 is expected to be the lowest in the last ten years. On the top of it, there are no good prospects for the spirit producers for the future since the global alcohol consumption falls too probably as a consequence of a healthier lifestyle.

Wine if consumed moderate, has positive effects on human health as was already found out in Ancient Egypt. Wine contains active substances which have anti-haematological, antioxidant and anti-inflammatory effects and help to dissolve blood clots. The only thing which might be perceived negatively with regard to wine is the content of alcohol. Some people cannot drink alcohol, some just do not want to drink it and that is why alcohol-free wines were developed.

Non-alcoholic wine is a wine which was ‘de-alcoholised’ meaning it is not just a wine juice or syrup. It is a real wine with all its positive effects only with less calories and without the alcohol content. Despite the increasing sales and demand for such wines especially in the developed countries it still represents only a small portion of the global wine trade and the ‘normal wine’ is remaining a clear wine market leader.

Not only global patterns of consumption are changing and rapidly increasing especially in Asian countries. Also wine production is experiencing significant changes when moving from traditional ‘Old World’ countries to the countries of the ‘New World’.

Global wine trade has changed a lot since the 1970’s when only one tenth of world wine production was exported. New markets are emerging and new market trends followed which also have an impact on the situation in the Czech Republic.

## DIPLOMA THESIS ORGANIZATION

---

Wine trade in the Czech Republic experiences a growing trend since 2005 and this diploma thesis provides its overview by description of the historical development, current regions of production, without further describing the wine growing and wine making techniques, and wine production after the year 2000.

The main focus is dedicated to Czech imports, exports and their balance after the entry of the Czech Republic to the European Union. Special attention is given to Czech wine consumption and its possible future development and to global as well as Czech market trends.

Complex systems of subsidies for Czech wine producers, their financial expenses and costs, analyses of producer & consumer prices of wine, varieties of grape wine and types wine (such as rosé), wine certifications and related laws and other possibly related themes are not the subject of this thesis.

## 2 AIM AND METHODOLOGY

---

### AIM

---

The aim of this diploma thesis is to provide an overview and evaluation of the wine trade in the Czech Republic and to accept or reject the formulated hypothesis.

Hypothesis formulation: *Wine trade in the Czech Republic is expected to grow.*

Supplementary aims of the thesis are identification of trends in international wine trade and proposition of suggestions to Czech wine producers and makers concerning their competitiveness. Those suggestions are based on the provided analysis and description of market trends.

### METHODOLOGY

---

The diploma thesis was executed on the basis of studied professional and specialist literature and internet sources and accordingly the main references used in the theoretical part of the thesis consist of literature and other available resources.

In the practical parts of the thesis was worked with the time series and other publicly available primary data provided mostly by the Czech Statistical Office. Graphs created were based on those publicly available data were often used only in order to illustrate the development of variables and their past trends. Trend lines based on mathematical functions were used for formulation and execution of the Czech wine consumption prognosis. SWOT analysis was partially employed when analysing and evaluating the opportunities and threats of the Czech wine industry.

All resources used in the thesis are referenced and can be found in Bibliography and References.

### 3 LITERATURE OVERVIEW – WINE TRADE

---

#### 3.1 ORIGIN OF GRAPEVINE AND DEVELOPMENT OF WINE MAKING<sup>1</sup>

---

It is known that wine grape grew on earth already 150 million years ago in the Mesozoic era and therefore it is considered one of the eldest cultural plants which accompany man from the beginnings of its existence.

Around 10,000 years ago in the surroundings of Caspian Sea the humans started to study grapevine more closely and the winegrowing as a discipline came into being.

Humans of New Stone Age (Neolithic era, approximately 6,000 – 2,000 years before Christ) already collected the wild grapevine berries and probably also found out about the heady effects of the fermented grapevine juice. Sumerians, the first inhabitants of the Mesopotamian territory between the rivers Euphrates and Tigris, are known and recognized as one of the eldest wine-growers.

With regard to varieties of the grapevine it is known that the most cultivated type of grapevine especially in the area of Near East – today's territory of Iran and Israel, was thanks to its unique taste wild *Vitis vinifera*. This was proven when archaeological expedition in Iran found a jug with a narrow neck and on its bottom some yellowish sediment. After in-depth analysis it was found out that the sediment contains tartaric acid in the quantity present entirely in the wine grapes and resin which was used in ancient world until the Romans era for wine preservation. The jug or flagon was according to the research findings evidently made approximately 5,400 – 5,000 years before Christ and the eldest wine found is 7,000 years old.

The wine grape was then distributed to Egypt, Syria, Babylon and later also to China, Palestine and Greece.

---

<sup>1</sup>Kraus, V., Kuttelvašer, Z., Vurm B., *Encyklopedie českého a moravského vína*

In Egypt the grapevine was grown on the banks of Nile. Egyptian pharaohs believed that wine is a gift from Osiris, who was the God of blooming vineyard. Approximately 2,700 years before Christ pharaoh Tutankhamen improved the level of production and the approach to wine itself. The level of viticulture and winery in Egypt increased to a much higher level and lot of objects and documents exists to prove that. Amphoras and different flagons and jugs for wine from potter's clay were found with information regarding the vintage, quality of wine, origin and sometimes also name of the head of the winery.

In Ancient Greece, on Cyprus and in Thrace can be talked about advanced viticulture. Wine became part of a culture and it was perceived as one of the basic necessities of life. Founder of such approach to is considered Dionysus (Bacchus), the God of grape harvest, winemaking and wine, but also of ritual madness and ecstasy in Greek mythology. He is presented as a son of Zeus and his mortal mistress Semele. Lot of myths exist about him.

Romans, the heirs of Greek culture, took over their grapevine and winemaking. They often adulterated the wine with water or added spices to it. They also started to mix the wine and falsify it. They also added plaster, chalk and crushed clay (today's bentonite) to wine and occasionally also crushed stones and rocks, pearls and various aromas and flavours. Resin and crushed marble were used for conservation. There exist literature from these days about winery in Roman culture and contains descriptions of grapevine growing and processes used in wine production. During the wars and withdrawing of different territories by Romans the grapevine spread over - to France and Spain.

Between antiquity and the Middle Ages wine making suffered due to the wars and the downfall of the Holy Roman Empire. It was Emperor Charlemagne who stabilized the situation and started to support the wine making again. Important role played also the Church with its monasteries where grapevine was grown on large vineyards. Around medieval times also the famous Clos de Vougeot in Burgundy (France) famous for its superfine wines was founded by Cistercian monks. Wine growing as well as wine making was organized by special laws and wine trade became a symbol of wealth.

Between the 10<sup>th</sup> and 12<sup>th</sup> century wine expanded further to Germany. Vineyards were established mainly in the north of Germany. During 16<sup>th</sup> century the wine spread out to the

United States with European immigrants and in 17<sup>th</sup> century Europeans took it to South Africa.

Until the beginning of the 17<sup>th</sup> century wine was said to be the only consumable drink unpretentious for storage. Water drinking was a health hazard because of the dirt, especially in towns, and beer without hops went bad quickly. There were no other drinks, alcoholic or non-alcoholic, which are so common nowadays.<sup>2</sup> But during the 17<sup>th</sup> century there was a big change and all of a sudden wine making appeared to be in jeopardy. Chocolate, tea and coffee arrived to Europe, water thanks to water pipes system became drinkable and beer durable thanks to hops meaning wine was no longer the only drink and had a competition. Wine makers had to look for new ways in order to stay competitive and with the invention of glass bottle, cork and cork-screw they succeeded. The position of wine among the drinks even improved - wine can mature in the bottle which helps to create its bouquet and the price could then be increased.

In the 19<sup>th</sup> century the wine trade thrived and many people became income dependent on this agricultural product. Italy and Spain were the first ones to introduce new modern wines for export, California also enjoyed its fame and wine was for the first time brought by Europeans to Australia and Pacific.

In 1863 phylloxera – a pest, originally coming from eastern North America, first got to Europe. The results were tremendous, all European vineyards were affected. Phylloxera nearly destroyed the whole viticulture, but luckily the American grapevines were phylloxera-resistant. All grapevines were then grafted to stocks with immune roots system.

The system of wine making had not changed much since the Early Middle Ages up until the 20<sup>th</sup> century when the industrial and scientific revolution changed the techniques for wine pressing and fermentation.

Around 1960 the French oak barrels ‘barrique’ started to be widely used. The oak wood gave wine from California and Australia special taste similar to French wines and in 1970’s on the wine tasting in Paris those wines won for the first time overtaking the best French wines from Bordeaux and Burgundy.

---

<sup>2</sup> Johnson, H., Robinsonová, J., *Svetový atlas vína*.

Those results shocked the traditional wine growing countries, especially France, and the wine industry has changed a lot since then. The excessive use of oak wood as a ‘seasoning’ is still a current problem not only in the countries of ‘New World’ but increasingly also among French, Italian and Spanish wine makers.

---

## 3.2 THE GLOBAL WINE TRADE

---

### 3.2.1 WINE – TERMS AND DEFINITIONS

---

Generally wine is an alcoholic beverage made from fermented fruit juice. Most often from grapevine juice, but also elder, rose hip and currant wines exist. Wines typically contain 10 to 15 per cent of alcohol, water, acids, tannins, pectin, aldehydes, aromas, colourings, minerals and sugars etc.

As defined by Anderson and Nelgen, the term **wine** is used for beverage wines of fresh grapes of all qualities, including still, sparkling, fortified and dessert wines;<sup>3</sup> and trade with wine in this sense is also subject of this thesis. However, and for an interest, there exist also non- beverage wine used for distillation and other industrial uses.

Beverage wine could be simply divided according to its style to red, white and rose wines but while working with the international trade data the following division seems even more important.

The classification described below is used to *get shares of the volume of domestic consumption of the three still wine categories, compressed from Euromonitor data on volume of sales by retail price range. The price ranges are reduced to pre-tax wholesale prices by taking account of excise taxes, GST/VAT (goods and services tax/value added tax) and import taxes (from Anderson 2010) and assuming the above-mentioned marketing/distribution margins. (The long delays in compiling complete data for all countries mean that data on global shares currently go up to only 2009).*<sup>45</sup>

---

<sup>3</sup> Anderson, K., Nelgen, S., *Global Wine Markets, 1961 to 2009: Statistical compendium*

<sup>4</sup> Anderson, K., ‘*Excise and Import Taxes on Wine vs. Beer and Spirits: An International Comparison*’

<sup>5</sup> Anderson, K., Nelgen, S., *How does Australia rank in the various quality segments of the world’s wine markets?*



Beverage wine can be divided into following sub-categories:

- **Bottled still wine** – still grape wines traded in containers of two litres or less;  
Still wine can be then according to its quality and price further subdivided into:
  - ☉ *commercial premium (CP)* - wines with price between 2.50 and 7.50 US dollars per litre pre-tax at the national border
  - ☉ *super premium (UP)* - wines with price above 7.50 US dollars per litre pre-tax at the national border
- **Bulk wine** (or other wine) – still grape wines traded in containers exceeding two litres, often called *non-premium wine (NP)*, with price below 2.50 US dollars per litre pre-tax at the national border
- **Sparkling wine** – grape wines, sparkling

---

### 3.2.2 GLOBAL WINE TRADE

---

Wine plays an important role in international trade; it is on the fourth place in the beverage category in global export and import and on the second place when concerning just the alcoholic segment. In 2008, based on data from FAOSTAT, was the volume of global beverage export 58.7 million tonnes, wine participated with approximately 15% overtaken by beer (21%), whole segment of non-alcoholic beverages (27%) and water & ice (30%). Global import of beverages was comparable to export not only with regard to quantities but also with regard to rankings.<sup>6</sup>

Based on latest trustful data available was in 2009 sold around 27 billion litres of wine globally for an estimated worth of 256.4 billion US dollars. Concerning the global wine sales by styles, still red wines dominate with approximately 52% of total volume sales in 2009.<sup>7</sup>

---

<sup>6</sup> <http://faostat.fao.org/>

<sup>7</sup> Primary Industries and Resources South Australia (PIRSA), Market Research and Development Unit. *Wine Markets and Consumers. Government of South Australia: Opportunities and Challenges for the Langhorne Creek wine region.*

*...IT IS INTERESTING TO LOOK TO THE PAST a little bit...<sup>8</sup>*

Prior to 1970's only c. one tenth of world wine production was exported. Wine was usually consumed close to where it was produced and that was mostly in Europe – 'Old World'. The globalization has changed that - nowadays more than one third of all wine consumed globally is produced in another country and Europe's dominance on the global wine trade has been greatly diminished by the exports from 'New World'(North and South America, South Africa, Australia and New Zealand). Also customers have changed as their income has risen and their tastes have broadened.

Between the years 1988 and 2001 the growth in the volume of exports as a percentage of world wine production rose from 15 to 25 per cent, for the big four European wine exporters this ratio rose from 20 to impressive 30 per cent, but for the 'New World' producers that ratio rose from just 3 per cent to unbelievable 20 per cent. Asia in particular was and still is emerging as a new and rapidly growing market and China with its modern production capability in volume terms already rivals Argentina, Australia and South Africa. The entry of those 'New World' producers presented a serious challenge to producers in Europe. On the other hand and based on the two decades of decline in global wine consumption it was also argued that with the rapid expansion in 'New World' vineyard plantings in the early 2000's it would cause 'New World' regions also to face challenges once grapes from those new vineyards were available for sale.

Based on already available data for the period 2000 – 2009 and illustrated in the graph G1 the volume of exports as a percentage of world's wine production has continued to rise - from 25 per cent to 32 per cent. For the biggest Western European wine net exporters (WEX) France, Italy, Portugal and Spain it rose by one fifth, while for the exporters from 'New World' (NWE) namely for Argentina, Australia, Canada, Chile, New Zealand, South Africa, the Unites States and Uruguay the ratio doubled (rising from 20 per cent to 40 per cent in the period 2001 – 2007) before falling back to 37 per cent in 2009. In both 'Old World' and 'New World' exporting countries the production is growing faster or falling less than consumption.

---

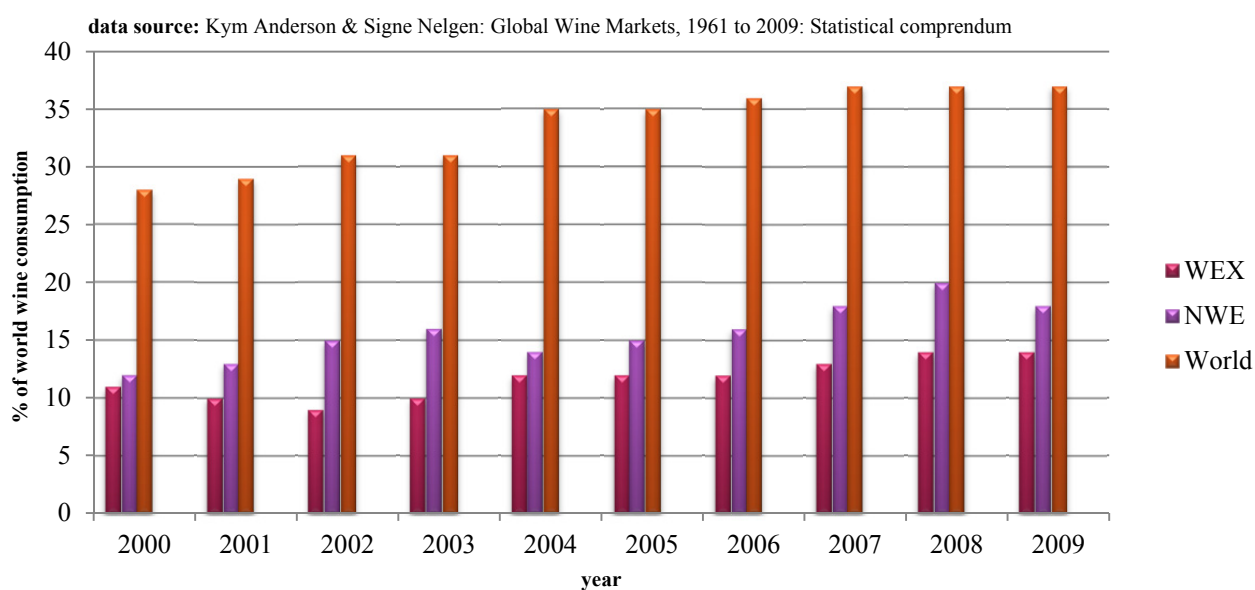
<sup>8</sup> Anderson, K., Nelgen, S., *Global Wine Markets, 1961 to 2009: Statistical compendium*

## G1 - The volume of exports as a percentage of world wine production



Looking from the importers' perspective the share of wine consumption (illustrated in the graph G2) supplied by imports has risen between the years 2000 and 2009 from 28 to 37 per cent globally and from 23 to 34 per cent for the European Union. This is partially because of the fact that European countries with fastest declining (rising) wine consumption are the countries that are net exporters (importers) of wine.

## G2 - Imports as % of beverage wine consumption volume



In the mid-1990's was the export charge led by Australia. In more recent years it has been New Zealand and Argentina that have experienced the fastest export growth. That, together with sustained export growth for Chile and South Africa, has ensured the 'New World' continues to take global market share from the 'Old World'.

*Note: Intra-EU trade is excluded, but for an interest - the 'New World' has almost caught up with the EU-15 in export value terms and has exceeded the EU-15 in volume terms.*

**The period between years 2000 – 2009, the second decade of rapid globalization of the wine industry, has several characteristics that distinguish it from the first in the 1990's<sup>9</sup>:**

- **Export volume growth more than halved for the 'Old World'** (dropping from 3.8 per cent in the 1990's to 1.8 per cent in the most recent decade) **while for the 'New World' it dropped by only two fifths** (from 18 per cent to 11 per cent). However, the unit value of wine exports in the past decade hardly changed for the 'New World', whereas it grew by 7 per cent per year for the four big European exporters (WEX), which meant the value of latter's exports grew almost as fast as for the 'New World'.
- Exports peaked for Australia in 2007 and growth has slowed in New Zealand too as marketers in both countries struggled to sell the burgeoning stocks at the beginnings of the North Atlantic recession and their appreciating currencies. Local prices of grapes and vineyard and winery assets have dropped even more than unit values of their exports. Australia's appreciating currency (thanks to its boom in mining exports to China) also encouraged import growth. That meant its wine self-sufficiency fell (from its peak of 337 per cent in 2004 to 236 per cent in 2009). On the contrary, New Zealand's boom that began few years later than Australia's

---

<sup>9</sup> Anderson, K., Nelgen, S., *Global Wine Markets, 1961 to 2009: Statistical compendium*

showed no sign of slowing by 2009 and its wine self-sufficiency rose (from approximately 80 per cent early in the century to almost 240 per cent in 2009).

- Argentina abandoned its peg to US dollar and devalued by two thirds at the end of 2001. The share of Argentina's production that is exported rose from 4 per cent to 29 per cent by 2008. At first was the quality of those exports low, but it has been rising rapidly and the unit value of exports almost trebled between 2003 and 2010 (from US\$0.88 to \$2.67 per litre). The share of bulk in total wine exports halved (from 52 per cent to 26 per cent). On the contrary the shares of Australian, New Zealand and United States wine exports shipped in bulk has nearly quadrupled between 1999 and 2010. **'New World' exporters as a whole now ship slightly larger share in bulk than does the EU-15, in contrast to the turn of the century when the 'New World's' share was half of the 'Old World's'**. That partially reflects the decisions made by large firms to bottle cheaper wines at their destinations rather than in a distant country of origin, but it is also a symptom of a rising over-supply situation in Australia and New Zealand.
- **Wine market has grown rapidly in Asia.** While wine's share of recorded alcohol has not changed much from 18 per cent globally, its share in Asia has doubled over the past decade (although just to 3 per cent). **The growth has been most significant in China, where it reached 3.7 per cent.** China's aggregate consumption quadrupled over the decade and by 2009 nearly equalled consumption in the United Kingdom. Wine consumption volume growth has been also quoted in Hong Kong, Korea, Malaysia and Singapore.
- **India's wine production and consumption grew even at a faster rate than China's during the past decade, however its market is still barely 1 per cent of China's. India's imports have been growing at more than 25 per cent a year over the past decade but from a low volume and still remain held back by a 150 per cent import duty.**
- **Asian countries started to import super-premium wines** and by 2009 seven of the 15 top ranked countries in terms of unit value of imports were Asian. **The growth in their average price of imports was highest for China, Hong Kong**

**and surprisingly also for Japan where the consumption growth is lacklustre. Share of Asia's wine imports that are bulk declined and as a result Asian imports are much higher priced than those of traditional importers.**

- **China**, apart from increasing wine consumption, **is also planting more grapevines and expanding domestic wine production** (partly with the help of imported juice and bulk wine). Indeed China's self-sufficiency has fallen, but only marginally, from 93 per cent a decade ago to 85 per cent by 2009. **As of 2009 France, followed by Australia, held the dominant position as a wine exporter to China. Currently exporting countries are focusing their marketing efforts increasingly on China as they see big potential for the increase of growth rates of China's wine consumption** (and production). There are few encouraging signs and the two main ones are: the growth in the quality of China's wine imports and the fast rise in China's share of global income which is expected by many international agencies to more than double over the next two decades.
- **Ukraine and Russia are two other territories of focus. The share of wine in Ukraine's recorded alcohol consumption has doubled and in Russia's has gone up by one half such that in both countries wine accounted for one tenth of their recorded alcohol consumption in 2009.** Domestic wine production has also grown there, but the net imports still accounted for 33 per cent of Russian consumption in 2009 compared with only 15 per cent in 2000. Production in other Eastern European countries and in the former Soviet Union has declined, so Russia is buying more from other regions. The unit value of its imports is rising only one third as rapidly as that for China and as a result China's share of the value of world wine import has risen from one tenth to almost four fifths of Russia's since 2001.
- **Alcohol consumption patterns of traditional wine exporting countries and those of neighbouring countries within Europe are converging.** The growth in wine demand in non-traditional wine consuming countries of Europe and Asia has contributed to a slowdown of the otherwise rapid decline in wine's share of recorded alcohol consumption globally, which almost halved between the 1960's and 1990's.

**The differences within Europe are diminishing as well as the differences between the ‘Old World’ and ‘New World’.** The specialization of ‘New World’ in exporting commercial-premium wines and of the ‘Old World’ in exporting super-premium wines and consuming mainly non-premium wines is less obvious now. What is still very different is the extent of firm concentration within each country group. This difference between the ‘Old World’ and ‘New World’ was evident already in the 19<sup>th</sup> century for a complex set of environmental, technological and institutional reasons and wine is still the least concentrated of the beverage and tobacco industries.

**As of 2009, global wine sales totalled the equivalent of 30 billion 750 ml bottles and had a wholesale pre-tax production value of US\$98 billion. That represented an average price of \$3.27 per bottle wholesale pre-tax, or \$5.50 retail including taxes.<sup>10</sup>** Commercial-premium still wines accounted for two fifths of global sales in both value and volume terms. Super-premium wines were estimated to account for one third of the global still wine market’s value but only one tenth of its volume, whereas non-premium wines accounted just for one seventh of global wine in value terms but almost half in volume terms. Sparkling wines made up the rest, accounting for 13 per cent by value and half that share by volume.

In the charts CH1 and CH2 below the shares in still wine market are presented. Super-premium wines are estimated to account for almost two fifths of the value of the global still wine market, non-premium for just one-fifth, and the remaining 43% are commercial-premium wine sales. This contrasts sharply with their volume shares, which are 11% super-premium, 41% commercial-premium, 48% for non-premium.<sup>11</sup>

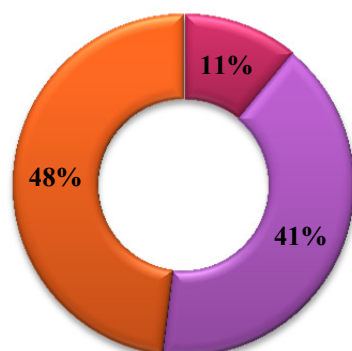
---

<sup>10</sup> Anderson, K., Nelgen, S., *Global Wine Markets, 1961 to 2009: Statistical compendium*

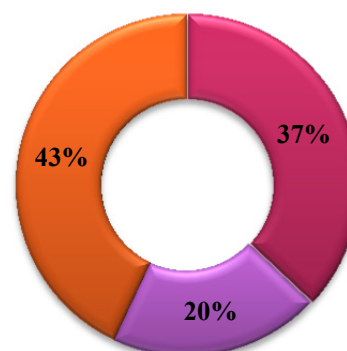
<sup>11</sup> Anderson, K., Nelgen, S., *How does Australia rank in the various quality segments of the world’s wine markets?*



**CH1 - Volume shares of global still wine market**



**CH2 - Value shares of global still wine market**



■ super premium   ■ non-premium   ■ commercial premium

Based on available data for the year 2009 and presented in the table T1, **France was** the clear **leader in super-premium still wine** (column UP), supplying two fifths of the value of the world's exports, which is more than three times the share of the second ranked Italy at approximately 17 per cent. New Zealand is ranked third in this category with 9 per cent followed by Portugal (6 per cent), Australia and Spain (each 3 per cent), Chile, Germany, the United States, South Africa and Argentina.

**T1 - SHARES OF WORLD WINE EXPORT VALUES, BY QUALITY, 2009 (in %)**

Country	Still wine			Sparkling wine	Total wine
	NP*	CP**	UP***		
France	12.4	16.6	60.5	58.8	30.3
Italy	15.3	22.2	16.7	13.0	19.1
Spain	23.0	9.6	3.4	11.3	10.3
Portugal	1.5	3.3	5.6	0.2	3.0
Australia	8.7	9.5	3.4	1.4	7.1
New Zealand	2.0	1.3	9.1	0.2	2.5
The USA	7.4	4.0	1.4	0.7	3.4
Chile	7.5	7.3	2.6	0.2	5.4
Germany	3.2	5.1	1.8	2.9	4.0
Argentina	1.8	3.8	0.5	0.4	2.5
South Africa	6.1	3.4	0.7	0.6	2.8
<b>WEX</b>	<b>52.1</b>	<b>53.9</b>	<b>78.6</b>	<b>83.2</b>	<b>62.4</b>
<b>NWE</b>	<b>33.6</b>	<b>30.1</b>	<b>15.7</b>	<b>3.5</b>	<b>23.8</b>
<b>EU-15</b>	<b>59.4</b>	<b>64.0</b>	<b>85.1</b>	<b>90.9</b>	<b>71.2</b>

**data source:** Kym Anderson & Signe Nelgen: Global Wine Markets, 1961 to 2009: Statistical compendium (chart 177)

Legend:

\* NP = non-premium wines

\*\* CP = commercial-premium wines

\*\*\* UP = super-premium wines

**Italy has the number one rank in terms of value of exports of commercial-premium wines** with approximately 22 per cent, ahead of France with almost 17 per cent. **Spain is first ranked in non-premium wine exports** with 23 per cent, well ahead of Italy and France. Spain, Italy and France together account for half of the commercial-premium and non-premium global still wine export value, and over 70 per cent of super-premium still wine. The next-ranked commercial-premium exporters are in order Australia, Chile, the United States, Argentina and South Africa and the same ordering, apart from Argentina, applies for non-premium exports.

However, those exports shares are not that closely related to the value of world production shares, because of the large differences across countries in the extent to which national production is exported and consumption is imported. Most notable is the first place of the United States in the value of world super-premium still wine production; followed by

France and Italy. The super-premium shares of Australia, Spain and New Zealand are similar but well behind Italy's.

**T2 - SHARES OF WORLD WINE IMPORT VALUES, BY QUALITY, 2009 (in %)**

Country	Still wine			Sparkling wine	Total wine
	NP*	CP**	UP***		
France	8.2	1.9	3.4	2.4	2.9
Switzerland	4.2	2.1	10.4	4.3	4.0
Belgium-Luxembourg	4.7	3.7	9.0	8.9	5.5
The United Kingdom	13.4	19.7	7.6	18.1	16.8
Denmark	4.1	2.0	4.9	1.0	2.5
Germany	18.5	11.1	4.3	11.9	11.0
The USA	7.3	18.6	18.6	13.4	16.6
Japan	1.4	1.8	12.9	6.4	4.2
Canada	2.7	6.6	8.5	2.1	5.8
China	2.4	2.3	0.9	0.4	1.8
Hong Kong	0.2	2.2	4.1	0.6	2.1
<b>WEX</b>	<b>14.6</b>	<b>2.9</b>	<b>4.0</b>	<b>7.7</b>	<b>5.1</b>
<b>NWE</b>	<b>11.4</b>	<b>26.9</b>	<b>28.5</b>	<b>19.0</b>	<b>24.3</b>
<b>EU-15</b>	<b>65.4</b>	<b>48.9</b>	<b>42.1</b>	<b>56.5</b>	<b>51.3</b>

**data source:** Kym Anderson & Signe Nelgen: Global Wine Markets, 1961 to 2009: Statistical compendium (chart 177)

Legend:

\* NP = non-premium wines

\*\* CP = commercial-premium wines

\*\*\* UP = super-premium wines

In the table T2 above shares of world wine imports by quality for the year 2009 for the chosen territories are presented. From the European countries, in the super-premium still wine category (UP) the first three places were taken by Switzerland, Belgium-Luxembourg and the United Kingdom, followed by Denmark, Germany and France. **Outside Europe have the first ranks in the shares of super-premium imports the United States (18.6 per cent), Japan (12.9 per cent) and Canada (8.5 per cent).** In 2009 were the Asian markets still rather minor as destinations for super-premium wine, although they have grown very rapidly since then.

**The United States (18.6 per cent) and the United Kingdom (19.7 per cent) are two almost equally dominant importers in the commercial-premium category** followed by Germany (11.1 per cent). Those three importers together account for just over half of the value of the commercial-premium category world imports.

**For the non-premium category are the biggest importers from Europe Germany (18.5 per cent) and the United Kingdom (13.4 per cent). China is the only significant East Asian importer** and by 2009 it was ranked 11<sup>th</sup>, but according to estimates has certainly joined the top 10 list since then.

The shares of super-premium consumption values are dominated by the United States, followed by France, Japan, Canada and Switzerland. For commercial-premium wines the United States and the United Kingdom are ranked highest, followed by France, China, Germany and Canada.

It is important to mention, that all presented value share rankings are at pre-tax prices. They would be different if presented at tax-inclusive prices, since taxes and tax rates differ across countries. In addition, some countries such as Australia have only ad valorem taxes, tax rates differ across the quality categories because volumetric excise and import taxes increase the retail price more on lower-quality wines. Taxes are especially high in developing Asia (except for Hong Kong), Scandinavia, Turkey, the United Kingdom and Ireland and by contrast very low in European wine exporting countries. If the ad valorem tax rates were everywhere as low as in the European wine exporting countries, the latter's dominant shares of global wine consumption would be much lower. Furthermore there exists a virtual ban on wine consumption in many Islamic countries.

The world wine markets have been changing just as dramatically in the past decade as they did in the previous one and most probably as they would in the future too. Producers in the 'Old World' are continuing to adjust in order to compete with the 'New World', with some segments, such as Bordeaux super-premium exporters, doing well while others are still over-supplied and require diversion to other uses (non-beverage). In the 'New World' growth in output has slowed down in some territories because of price declines and increasing stock (for instance in Australia and New Zealand), but recent growth of exports by Argentina, the United States and some others has been strong. Over the next decade

China is expected to play an important role - import demand growth is expected for China as well as new or expanding suppliers.

*...AN EARLIER WAVE OF GLOBALIZATION...<sup>12</sup>*

There was however much earlier wave of globalization for the world wine market in the period from 1860 to 1913 that is worth to be mentioned. For this time period was not only typical a decline in international trade costs that raised that boosted most merchandise, but also vine diseases. The spread of phylloxera devastated French vineyards in the last third of the 19<sup>th</sup> century, and along with mildew damage forced France to become a major importer of wine in 1980's. As a consequence in North Africa boomed export-oriented viniculture and an important role played also the fact that French colonies in the region had highly preferential access to the French market.

At the beginning of 20<sup>th</sup> century Algeria accounted for nearly 40 per cent of global wine exports and, with Tunisia, for 6 per cent of global wine production. North Africa's share of world production was still 6 per cent in 1961 – 1964 and its share of exports was enormous 54 per cent before dropping sharply to less than 4 per cent in the 1980's and almost nothing from the 1990's. That region will not regain its earlier share of world exports now with the 'New World' exporters, but wine could become again a major rural export industry for those Islamic states if they decide to re-join the world wine markets.

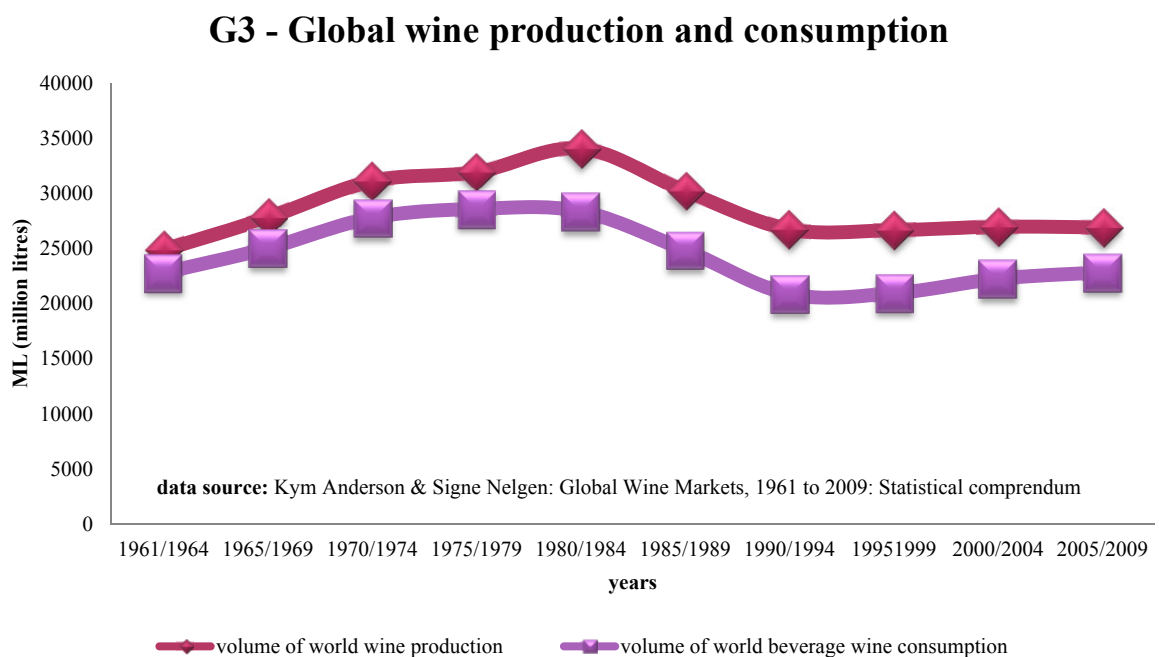
To provide some kind of summary on the globalization of the wine industry it can be said that the industry is undoubtedly more globalized than it was at the end of the previous major wave of globalization. But still the wide dispersion across countries in wine expenditure per adult and in taxes on wine consumption, and the fact that both the 'Old World' and the 'New World' are still exporting only about one third of their wine production suggests there is a plenty of scope for globalization to progress further in the future.

---

<sup>12</sup> Anderson, K., Nelgen, S., *Global Wine Markets, 1961 to 2009: Statistical compendium*

## GLOBAL WINE PRODUCTION & CONSUMPTION & VINEYARD AREA

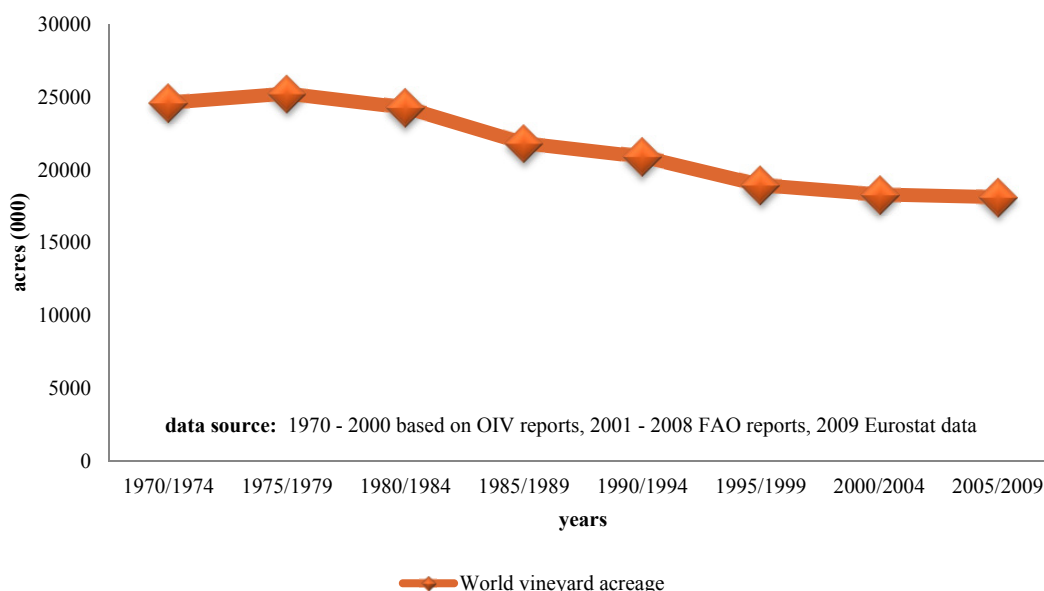
In graph G3 the development of world wine production and consumption during the period 1961 to 2009 is illustrated. Both consumption and production keep to the same trend with peak around year 1980 and afterwards continuous decrease can be recognized. Explanation for this decline can be found when examining the world vineyard acreage.



Until 1980 world vineyard acreage experienced sustained growth, then became to gradually decline. These decreases were primarily due to a vineyard grubbing program in the former Soviet Union followed by grubbing and other supply control programs initiated by the European Union. Europe reduced its world vineyard acreage share over the past twenty years from 70 per cent to less than 60 per cent. From the European Union it was especially France and Italy, who cut down their vineyard areas, from Asia it was Turkey. However there are also countries such as China, Australia, New Zealand and Argentina which as time goes by increase their areas of vineyards.

The changes in the world area of vineyards for the period from 1970 to 2009 are expressed graphically below (graph G4). In 2009 were the top five countries with the highest vineyard acreage in descending order Spain, France, Italy, China and Turkey.<sup>13</sup>

**G4 - World vineyard acreage**



When looking more closely on wine production in the period after 2000 (graph G5) another peak can be identified around year 2004 and then decline again. It was especially France and Italy, the two big players, who have been driving this downward trend in wine production, as the ‘Old World’ countries have continued to fight oversupply (as approximately one third of the European Union wine budget is used to dispose of the surplus wine). This decline in world wine production was pulled back a little bit in 2008 when a significant increase in wine production from ‘New World’ countries offset the decreases in the ‘Old World’.<sup>14</sup>

<sup>13</sup> Wine Institute.org. *World Vineyard Acreage by Country*

<sup>14</sup> Primary Industries and Resources South Australia (PIRSA), Market Research and Development Unit. *Wine Markets and Consumers. Government of South Australia: Opportunities and Challenges for the Langhorne Creek wine region.*



## G5 - Global wine production & consumption 2000 - 2009



According to Market Research and Development Unit of Primary Industries and Resources South Australia (PIRSA), global wine consumption and production were nearly at equilibrium in 2010. However, the balance between production and consumption is a very sensitive one and can be influenced by many factors including current global wine stocks, the global financial crisis, weather conditions, investor confidence etc. In case of over supply on the market (as it has been occurring in Europe or Australia in current years) the prices fall and discounting wars occur and which can even lead to undermining in consumer confidence and negatively affect brand loyalty.<sup>15</sup>

The decline in global wine consumption in the period 1980 – 2000 is considered a consequence of global population growth being biased towards non-wine consuming regions (Middle East, Asia and Africa), but also the changing alcohol consumption pattern in traditional consuming regions plays an important role. In Europe the total alcohol consumption declined over the past few decades while beer and spirits increased market penetrations. In the period 2000 to 2007 the global wine consumption only expanded in line with population growth (approximately 1.3 %) with global per capita consumption remaining relatively flat at approximately 3.65 kg/person/year.<sup>16</sup> According to PIRSA and

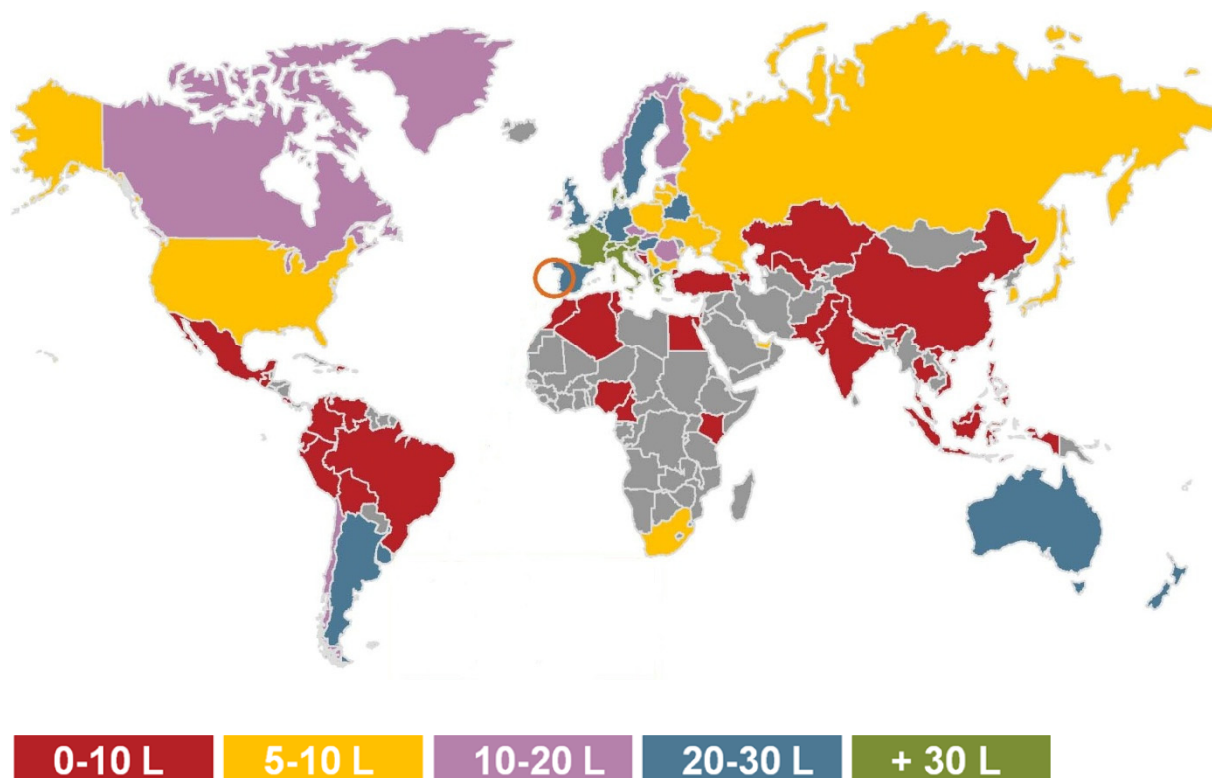
<sup>15</sup> Primary Industries and Resources South Australia (PIRSA), Market Research and Development Unit. *Wine Markets and Consumers. Government of South Australia: Opportunities and Challenges for the Langhorne Creek wine region.*

<sup>16</sup> Commonwealth Bank.com.au. *International Wine Industry Review.*

was the global per capita consumption in 2009 3.9 litres, according to Euromonitor 4.0 litres.<sup>17</sup>

Based on information from Euromonitor International<sup>18</sup>, are on the picture below with world map presented countries and their beverage wine consumption per capita values for year 2010 (in litres per person per year). The highest values were traditionally identified for ‘Old World’ European countries with leader Portugal with global wine per capita consumption approximately 46.5 litres.

### Global wine per capita consumption in 2010



**Data source:** Euromonitor International<sup>19</sup>

<sup>17</sup>Euromonitor International: Kuiper, M., *Trends and Opportunities shaping the global wine industry*.

<sup>18</sup>Euromonitor International: Kuiper, M., *Trends and Opportunities shaping the global wine industry*.

<sup>19</sup>Euromonitor International: Kuiper, M., *Trends and Opportunities shaping the global wine industry*.

*Per capita*, meaning literally *per person per year*, it is the most often measure used for expressing consumption in individual countries. It takes into account the population and though makes the results suitable for different comparisons, since it is less dependent on the country size. As wine belongs to the category of alcoholic beverages not only the volume of wine consumption per capita is being measured but also the volume of wine consumption per capita in litres of alcohol is monitored. On the top of it, especially thanks to growing interest in the health aspects of alcohol consumption, ‘new measure’ is increasingly being used – *per adult per capita*. But still in all those categories, based on data from 2009, lead European countries with Portugal ranked first and followed by Italy and France.

---

### 3.3 WINE TRADE IN THE CZECH REPUBLIC

---

#### 3.3.1 HISTORY OF WINE IN THE CZECH REPUBLIC

---

#### HISTORY OF VINICULTURE IN BOHEMIA<sup>20</sup>

---

According to old legends the Great Moravian prince Svatopluk gave a barrel of delicious wine to Bohemian prince Borivoj in year 892. This gift got to Vysehrad during the celebrations of Borivoj’s new born son Spytihnev. Borivoj’s wife Ludmila on her husband’s request tried the wine, she really liked it and sacrificed a little of that wine to the goddess of the harvest, Krosyně, while making a plea for abundant rain. Her wish came true; the crop was saved and everybody then believed that through the wine offer the earth was moistened.

For the first time Ludmila used wine in Bohemia for religious purposes during the time when she was still a heathen. Therefore it is no wonder that she supported the development of winery when she accepted Christianity. Ludmila established one of the first vineyards close to her birthplace Psov in Nedomice u Melnika. The first vineyard was, apparently, between the communes of Nedomice and Drisy. Saint Wenceslas, their grandson, later learned how to cultivate vines in this vineyard, press the grapes and make wine. He is honoured by Czech vintners as "Supremus Magister Vinearum" (the supreme burgomaster

---

<sup>20</sup> Kraus, V., Kuttelvašer, Z., Vurm B., *Encyklopedie českého a moravského vína*

of the vineyards) and every year a wine festival is held in Melnik on feast of St. Wenceslas at the end of September. Today the Saint Wenceslas vineyard is being renewed and replanted with vines by small local viticulturists.<sup>21</sup>

The rapid expansion of the vineyard area in the warmest parts of the Czech lands comes about by the deed of covenant proclaimed by Prince Spytihnev II to the Collegiate Church of Saint Stephen in Litomerice (year 1057). This lists the gifted vineyards in the environs of the town as well as the names of wine-makers, including vintners bearing such colourful-sounding Czech names as Kozel, Stojan, Zvan, Dales, Cecen, Dras, Bachuch, etc. This is the first written record of vineyards and vintners in Bohemia.<sup>22</sup>

During 13<sup>th</sup> century, especially thanks to the monasteries as a whole, large vineyard areas are constantly being established. Grape varieties imported from France and Germany are planted and the training and pruning methods of these countries adopted. Such vineyard groupings are much easier to protect against thieving marauders and wild animals.

In the second half of 13<sup>th</sup> century there is an effort of authorities to fertilize the land by colonization. With the arrival of the Liechtenstein family in 1249 begins the colonization of the Mikulov region. Numerous vineyards are planted around the Palava Hills.

Evolving trade also brings pomposity to our countries and increasing position of power and politics shaping the aristocracy pushes the temporal lieges (feudalism) to earn more money for at that time very popular knight life. One of their possibilities of how to earn the money was the colonization and change of Czech liege law to the Law of Emphyteusis (heritable tenancy). The condition for getting the new law was the acquisition of the land by dependants for perpetual usage. Apart from that the dependants had to pay yearly land rent in financial means (money), not in kind as it was practiced earlier.

Colonization's biggest importance was in giving a birth to the new type of viniculture in Czech. It was called municipal viniculture and it played a significant role in the development of local viniculture for centuries until Thirty Years' War. Colonization also speeded up the development of Czech towns. Individuals with enough capital were buying land and farmsteads in the town's neighbourhoods and used it for cereal production and

---

<sup>21</sup> Wines of Czech Republic.cz. *History in dates*.

<sup>22</sup> Wines of Czech Republic.cz. *History in dates*.

then traded with the crops. Majority of towns in the north regions of Czech had their land on a slope, which were together with the climatic conditions ideal for grapevine growing. Wine trade in these days was earning more than trade with cereals and so viniculture became more and more popular for townsmen and bourgeoisie. Charles IV. understood that situation really well and he not only encouraged the efforts of townsmen and bourgeoisie but he providently tried to bring them together with the needs of poor royal revenue.

On 16<sup>th</sup> February 1358 Charles IV., King of Bohemia and Holy Roman Emperor, issued a decree for the city of Prague on vineyard plantings and related regulations, which from 12<sup>th</sup> May 1358 will come into effect in all the royal towns of Bohemia. In the decree he states, "...We, of our own free will and in our unending kindness and with the help of God, in order to improve the present state of our kingdom and all its citizens, decree: The planting of vineyards on all lands facing noon in a distance of 3 miles from Prague. Whosoever is the owner of such a slope or site is ordered to commence vineyard planting within 14 days of the publication of this privilege. Whosoever does not wish or is unable to plant vineyards is obliged to pass the property on to a person designated by the burgomaster. Those persons who plant vineyards are, from the day the planting commences, to be exempt from all taxes, dues and tithes for a period of twelve years. Beginning with the 13<sup>th</sup> year it will be incumbent upon the vineyard holder to surrender to the landlord a tithe payment and to the king from each vineyard a half-tub (30.5 liters) annually. All vineyards have to be of an equal size of 16 rods, (75.68 meters) in length and 8 rods (37.84 meters) wide meaning one vineyard total surface area was approximately 2,865 square meters. All vineyards planted in the year 1358 will be declared forever free of "ungelt" (customs duties) and all other land taxes. The aldermen of Old Town of Prague will select the burgomaster for Prague and for all royal towns. It is forbidden to all persons, whether high-born or low, to damage the vineyards. Any person found causing damage to the vineyards or their vines, whether on horse or on foot, or making a way through the vineyards, will have his right hand cut off unless he pays a ransom of twenty three scores of Bohemian Groschen (pennies). Whosoever is seized during the night will forfeit his head and his property will be declared confiscate by the Burgomaster. Should the thief be killed during his intrusion, then his killer will forfeit no greater sum than two hellers which he shall

place upon the body of the dead man. Any disputes arising will be judged by the Old Town Council of Prague."

Emperor Charles IV. tried to solve by his regulations also the problem of the urban poor. There were a lot of people without proper job but not enough workplaces for them in his times. When the vineyards are founded, planted and maintained it demands lot of labour since viniculture is intensive on handwork. To make sure that Czech wine will maintain its good market price and sales Charles IV. issued on 9<sup>th</sup> January 1370 another regulation in which he prohibits the import of foreign wines to Bohemia towns in the period between the feasts of Saint Havel (16<sup>th</sup> October, vintage) to Saint George (24<sup>th</sup> April or eventually Second Sunday of Easter. Together with this regulation comes also the supposition that Czech wine should only be consumed when young. In year 1373 was this regulation extended for the period of whole year. Based on those facts can be said that the steps taken in order to protect and glorify Czech viniculture were effective, but also an important point that Bohemia was sufficiently supplied from own production. Important to mention is also that Charles IV.'s laws regarding viniculture were then confirmed and adopted by all Bohemian monarchs until Maria Theresa (she was the last one).

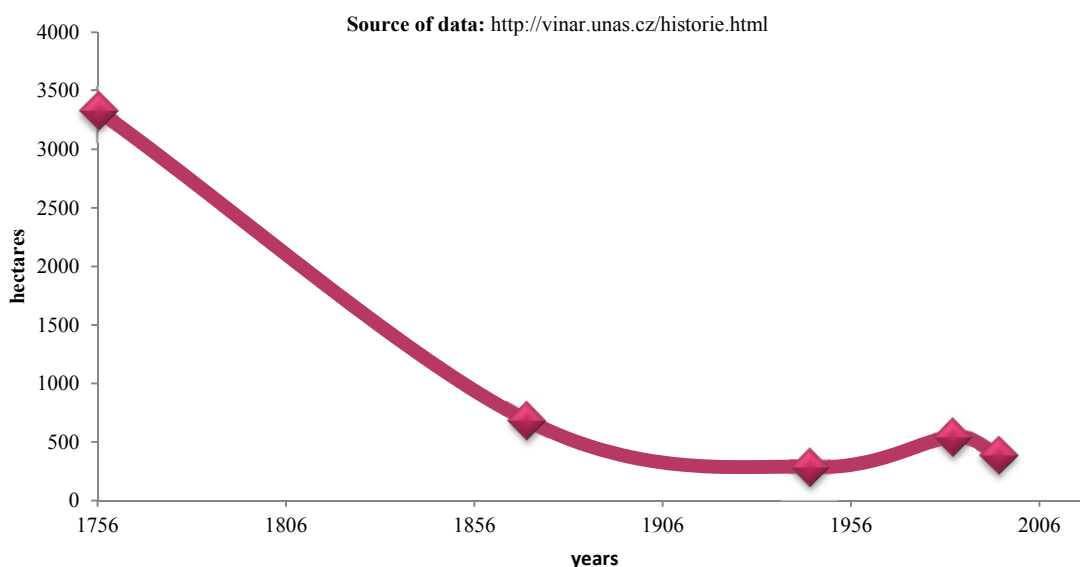
The range of planted varieties of grapevine in Bohemia improved also thanks to Charles IV. Varieties such as Pinot Noir (France), Traminer, Chardonnay, Muscat and etc. were planted on Czech vineyards. In year 1375 he allows the town of Znojmo to export its wines to Bohemia, Silesia and Lusatia.

In 1526 additional regulation aimed at local wine makers' protection against import of Austrian and Hungarian wines was issued. Along with it the imported wine had to go through quality and non-toxic check and afterwards was evaluated by Burgomaster. The Jews who can prior to that regulation import wine for themselves without a limit could then buy only Prague wine.

Together with the bloom of municipal viniculture also the viniculture in the country developed. During the 16<sup>th</sup> century the vineyard area in both Czech lands and Moravia reaches its peak. Concerning the Bohemia the highest concentration of vineyards was in the north of Bohemia - in total 950.2 hectares of municipal vineyards and 783.38 hectares

of country vineyards. In the graph G6 below the development of vineyard area in Bohemia since 1756 to present is illustrated.

### G6 - Vineyard area in Bohemia



As a consequence of the huge vineyard area over-production and other problems in certain years during 16<sup>th</sup> century occurred. Wine makers were not able to sell their wines on domestic market therefore sought to sell the wine abroad. The regulations regarding import of foreign wines were constantly breached and the profitability of urban vineyards rapidly dropped mainly as a consequence of their over-maturity.<sup>23</sup> This was the case especially in Prague, where locals as well as foreigners desperately tried to sell their wines hence retrenched on costs and neglected the care about vineyards. Simultaneously vineyards owners often changed and the number of vineyards being sold off in Bohemia increased their cultivation being in severe decline, the crops were down.<sup>24</sup> Rudolf II. tried to improve the state of Bohemian viniculture in 1590 and issued a regulation for urban vineyards *urbarium* (for explanation see supplement 4) establishment but there were still the problems with import of Austrian and Hungarian wines. In addition the costs were increasing which lowered the gains.

<sup>23</sup> Vinařské družstvo svatý Václav. *Historie vinařství v Čechách*.

<sup>24</sup> Wines of Czech Republic.cz. *History in dates*.



During 17<sup>th</sup> century the Thirty Years' War interrupted the positive development of Czech viniculture, mainly in the cities. The desolated vineyards did not recover even in the following centuries and the area of vineyards started to stagnate and then decrease without restraint. After the war, there was not enough money and labour and the city dwellers lost their interest in the innovation of vineyards and instead devoted themselves to the practice of business and trade.

In the 19<sup>th</sup> century was the consumption of wine rapidly increasing since new generations of industrial workers showed a preference for beer and spirits. Agriculturists lost interest in the vineyards and returned to the cultivation of traditional industrial crops such as sugar beet. In the second half of the 19<sup>th</sup> century there was another attempt to revive Czech viniculture and improve the training of capable specialists in the art of wine. A wine and fruit academy was established in Melnik in 1882 and other schools of lower academic standing have even previously been set up in Moravia.

## HISTORY OF VINICULTURE IN MORAVIA<sup>25</sup>

---

During the wars and withdrawing of different territories by Romans the grapevine spread over and in such a way the wine grape spread out to France, Spain, and Germany and in between the years 276 – 282 during the reign of emperor Probus also on Moravian territory.

The Emperor Probus annuls the edict of Emperor Domitian dating from 91 AD and orders the renewed planting of vines in the colonies north of the Alps. A great number of vineyards are established in Austria. The Roman garrison at Vindobona, the "Legio Decima Gemina, Pia Fidelis" builds its northernmost base on the Roman Hill, beneath the Palava hills, near the southern borders of what is now Moravia, and plants the first vineyard on Palava. During excavations of a walled building enclosure of the 10th Legion in the former commune of Musov in 1926, a pruning knife was found. It was 28 centimetres in length with a blade 10 centimetres long, and was for use in the vineyards.

---

<sup>25</sup> Kraus, V., Kuttelvašer, Z., Vurm B., *Encyklopedie českého a moravského vína*

Also archaeological excavations of Slav settlements uncovered numerous pruning knives and grape seeds, confirming the existence of developed viticulture in the Great Moravian Empire (years 833 – 906).<sup>26</sup>

In the foundation charter kept in the Benedictine Abbey of Trebic, there is a reference to the vineyards being bequeathed in Moravia (year 1101). This is a first written record relating to the vineyards of Moravia. However, the biggest expansion and development of viticulture in Moravia came with the arrival of Christianity and was later on highly supported by monastery communities.

In year 1195 was founded the Premonstratensian Abbey of Louka near Znojmo. This abbey was subsequently responsible for the planting of vineyards in the region of Znojmo.

Around year 1202 monks of the Cistercian order from the monastery in Velehrad in the region of Uherske Hradiste plant vineyards in Skorsice near Hustopece. By 1220 they also own Pritluky and its vineyards and by 1227 Kobyli along with its vineyards.

In the second half of 13<sup>th</sup> century there is an effort of authorities to fertilize the land by colonization. With the arrival of the Liechtenstein family in 1249 begins the colonization of the Mikulov region. Numerous vineyards are planted around the Palava Hills. Smil of Lichtenburg sells the commune of Zernoseky to the Cistercian Abbey in Altsel near Meissen in 1251. The Cistercians plant large areas with vines in Velke Zernoseky and excavate cellars into the rocks. The wine they produce is then transported along the river Elbe to their own abbeys in northern Germany.

In 1281 was written the oldest known text relating to land rights - the laws relating to the church property around the town of Kromeriz are established. These are referred to as the Bergrecht laws ('Berg' meaning 'mountain' in German and are related to land taxes). Later, in 1309 The Falkenstein Bergrecht laws and vineyard rules as applied in the district of Mikulov became a model for all legal regulations governing viticulture and the production of wine in many Southern Moravian wine communes. At this time Falkenstein also serves as the Supreme Appeals Court in vineyard disputes for those villages under the jurisdiction of the Falkenstein Bergrecht.

---

<sup>26</sup> Wines of Czech Republic.cz. *History in dates*.

The area of vineyards at the end of the 13th and beginning of the 14th centuries is fast expanding throughout Moravia. For those burghers of Brno, who own vineyards not only in the area around Brno but also in Zidlochovice, Hustopece, Mikulov and Znojmo, Austrian wine has become very serious competition. At their request King John of Luxembourg decrees on 5th April 1325 that the sale and serving of Austrian wines is to be restricted. From harvest until Easter only the wines produced by the citizens of Brno are allowed to be served, thereby outlawing those from Austria. Wine tasters are appointed in Brno to establish the origins of all wines brought into the city. They are present right at the town gates whence they only permit those wines having Moravian origin to continue into the town; and at the same time they determine the price at which these wines may be sold. This is the embryo of the Wine Commissioners Guild, whose function would later be performed in Moravia by wine brokers. The brokers would also function as wine forwarders, collecting barrels of wine from the producers and transporting them to the cellars of the purchasers. These individuals were said to have the best overall knowledge as regards the quality and quantities of wine in the cellars of Moravia and for this reason they were claimed to be the best intermediaries in the buying and selling of wine.

In 1355 The Moravian Margrave Jan Jindrich publishes sample vineyard rules for Moravia and the town council of Brno issues a decree on the obligatory registration of vineyards by all citizens of Brno in the taxation register so that the town may take its dues off them. Those who register their vineyards may export his country wine to Brno without further taxation.

In 1368 Hustopece, Mikulov and Znojmo were the largest wine centers in Moravia. Hustopece received its own vineyard rules in 1362 and at that time they already had 20 vineyard sites. Majority of those vineyards were planted by burghers of Brno who, according to the estate and property inventory dating from 1355, invested up to 28% of their personal fortunes into the project. As recorded in later inventories, Brno citizens were investing more and more capital in their vineyards. In 1477 the investment represented 41% of the value of their worth and estates, in 1509 even 42%.

On 23<sup>rd</sup> May 1393 the Margrave Jost permits the opening of the Municipal Inn (Taproom) where, only during the prohibited period between the feasts of Saint Michael (29th

September) and Saint George (24th April), Italian wines such as Malvasia, Romani and Rivoli, and some other Hungarian and Austrian wines, are allowed to be served.

At the end of 15<sup>th</sup> and beginning of 16<sup>th</sup> century there is a resurgence of the vineyard area in Moravian countryside. The aristocracy was interested in the royal income coming from vineyards and the city townsmen engaged in business and trade saw opportunity in vineyards and were buying them as another source of their income or extension of their businesses. Farmers and peasants also welcomed the good income coming from vineyards since they could then divide the grounds among their descendants because even with the small land area with income from vineyards they were able to earn their living.

In the second half of the 16<sup>th</sup> century Anabaptists came to Moravia and their activities were highly reflected in viniculture. Majority of them worked as a workforce on vineyards or had a job connected to viticulture. Some Anabaptists were even wine makers or they helped with vineyards' establishments or implemented new methods for grapevine growing and for wine making itself.

The Moravians were protecting themselves against the strong competition of Austrian and Hungarian wines imported into Moravia by exporting their wines into Austria. As a consequence Moravian wines started to be well-known not only in our country, but also abroad. In 1539 Austrian wine makers asked Ferdinand I. to ban the import of Moravian wines to Austria. Later on they repeat their request and that is why in 1575 the Moravian government assembly introduced new strict measures against Austrian wine merchants in the form of a ban on the transportation of Austrian wines through Moravian territory, unless Moravian wines are allowed into Austria.

At the beginnings of the 17<sup>th</sup> century the Moravian viniculture experienced a boom and the popularity of Moravian wines was on increase. In the year 1600, 864.5 hogsheads of Moravian wine were sold on the Krakow market and this quantity even raised – in 1609 it reached a total of 1,431 hogsheads.<sup>27</sup> (for explanation see supplement 4) Also the consumption of wine was high in the cities as well as in the country and it is estimated to 56 liters per person per year (per capita).

---

<sup>27</sup> Wines of Czech Republic.cz. *History in dates*.

After the Battle on White Mountain in 1620, during the “dark period” the area of Moravian vineyards dropped to one third of their original size.

The Moravian vineyards have, to a large extent, been renewed. The total area under vine in year 1748 amounted to 16,616 hectares and this figure continued to increase throughout the eighteenth century. It was especially the big wineries who renewed their vineyards, for example in Hustopece there was in year 1749 vineyard area of 3,843 measures (for explanation see supplement 4) and was sold 25 to 45 thousand buckets (for explanation see supplement 4) of wine. But in some areas, such as in Mikulov, the problems with wine sales were recognized.

In 1763 Austrian Vintners requested Maria Theresa to curb the new vineyard plantings in Moravia, because Moravian wines represented strong competition for them.

In 1783 all the local Bergrecht laws and activities of wine regulation court in Moravia were abolished by the Austrian emperor and Czech king Joseph II. and new official set of vineyard regulations for Moravia was issued.

A year later, in 1784, the imperial patent of Joseph II. permitted everyone to sell their own home-grown groceries, wine and fruit juice. This was the start of “under the bush” wine sales which in Austria and Hungary lasts till today. Since 1784 also the Moravian wines started to be sorted according to their quality (domain) as proposed by Rehor Volny. In the first class were wines of Sedlec, Mikulov, Popice, Dolni Dunajovice and Velke Pavlovice. The wines from Rakvice, Zajeci, Pritluky, Pouzdrany, Vestonice, Velke Bilovice and Nemcicky were placed in the second class and the third class included wines from Krepice, Nosislav, Velke Nemcice, Zidlochovice, Dolni Dunajovice, Dolni Bojanovice and Prusanky.

After Napoleonic Wars the price of cereals increased but the wine stayed cheap. Despite this fact the cumulative population started to prefer beer and cheap spirit made from potato alcohol. The boundary line between Austria and Hungary was violated and there was a great competition coming with the cheap Hungarian wines.

During the second half of the 19<sup>th</sup> century farmers turned their interests back to more profitable industrial crops such as sugar beet and the vineyards started to fade away. On the top of it, in 1890 the vine louse *Phylloxera Vastatrix* (*Viteus vitifolii*) made its first appearance in Moravia. The first discovery was made in Šatov in the Znojmo district. In 1900 it appears in Mikulov and Dolni Dunajovice, in 1901 in Perna, in 1902 in Horni Vestonice and Bavory and thereafter spread throughout Moravia with devastating effect. New vineyards grafted onto resistant American rootstock were established, but then new fungal diseases oidium and peronospora were brought in from America. The vineyards' treatments were very expensive hence the area of vineyard started to decrease.

In 1930's was the Moravian Vineyard Area the lowest in history, it represented only 3,780 hectares in contrast with year 1678 when it was approximately 21,053 hectares. Through vineyard renewal an area of 7,000 hectares was achieved by the year 1937. In 1960 this still remained at only 6,781 hectares. The first signs of expansion came during the 1960's and 1970's and the total area rose gradually to 14,019 hectares by 1980. After 1990 the downward trend returns and in 1997 there are 11,183 hectares of agricultural land under vine.<sup>28</sup>

---

<sup>28</sup> Kraus, V., a kol. , *Réva a víno v Čechách a na Moravě*

---

### 3.3.2 CURRENT SITUATION IN THE CZECH REPUBLIC

---

There are still two main wine regions in the Czech Republic – Bohemia and Moravia, both further divided into sub-regions (map below). At present, the area of the vineyards equals approximately 19 thousand hectares, 95-96% of which is situated in Moravia.<sup>29</sup>



Source: <http://www.wineofczechrepublic.cz/2-1-wine-region-moravia-en.html>

The area of vineyards in the Czech Republic has nearly tripled over the past ninety years, however since 1990's the vineyards in the Czech Republic were not being renewed not even to ensure their reproduction. The area of new vineyard plantings was continuously decreasing up to year 1993 because the purchase price of vine grapes was low. Since 1994 when their purchase price started to grow again also the area of vineyards started to increase. The vineyard area was rapidly increasing, also thanks to the subsidies from government, especially during the years 2003 and 2004 before the Czech Republic entered the European Union. At that time, the vineyard area enlarged by roughly 7,000 hectares. This happened due to the fact that Czech Republic committed to do no expansions of vineyards after the EU entry and wine makers took advantage of that last possibility for their vineyards enlargement.

---

<sup>29</sup> Discover CR.cz. *Wine and viniculture regions in the Czech Republic*

Together with the increase in vineyard area also the production rose and since 1920 nearly quadrupled. However, the share of grapevine on the total Czech agriculture production is less than 1 per cent. This is a really small number when compared to the rest of the European Union, where this share average is around 5 per cent (7 per cent in Austria, 3 per cent in Germany etc.). Red wine varieties are increasing their share, but still almost two third are represented by white wine varieties.

With an increasing interest in ‘eco-‘ and ‘bio-farming’ also the number of ‘green farmers’ in the Czech Republic rose to 2,689. Wine makers represented 2.4 per cent (meaning approximately 64 wine makers) and approximately 4 per cent of vineyard were “eco-‘.<sup>30</sup>

**T3 – VINEYARD AREA IN THE CZECH REPUBLIC**

NUMBER OF VITICULTURAL MUNICIPALITIES	NO. OF WINE GROWERS	TOTAL AREA OF REGISTERED VINEYARDS (hectares)	TOTAL PRODUCTION POTENTIAL (hectares)
377.0	18,292.0	18,710.3	19,261.5

*Note:* In addition, to the total production potential of 19,261.5 hectares also 385 hectares – 2% has to be added within the framework of the EU entry contract.

**Source of data:** ÚKZÚZ Brno, odbor trvalých kultur Znojmo - Oblekovice (Ing. Jaromír Čepička, CSc., Ing. Ludvík Michlovský, RNDr. Renata Matulová), <http://www.wineofczechrepublic.cz/3-4-statistics-charts-en.html>

In the table T3 are presented data regarding the vineyard area in the Czech Republic from year 2004 (original table available in supplement 2), which based on the obligation given to the EU, as mentioned above, should not change a lot. However, based on the information from Czech Ministry of Agriculture was the total production potential to the date 31<sup>st</sup> December 2010 **19,633.45** hectares, number of viticultural municipalities **384** and number of wine growers **19,257**.<sup>31</sup>

<sup>30</sup> Ekolist.cz. ČSÚ: *Plocha vinic v ČR se od roku 1920 téměř ztrojnásobila*

<sup>31</sup> Ministerstvo zemědělství. *Situační a výhledová zpráva: Réva vinná a víno*



## MORAVIA WINE REGION<sup>32</sup>

---

There are four main wine sub-regions in South Moravia situated near Brno – Znojmo, Velke Pavlovice, Mikulov and Slovacsko as presented on the picture below.



Source: <http://www.moraviavitis.cz/index.php?UrlQuery=0&value2=oblast-morava>

The Moravia wine region is typical with its little villages comprising of wine cellars – just wine cellars without a permanent residential population. In South Moravia, about 80 per cent of vintages reach high quality. Growing season is there a bit shorter than in the Western Europe but excels in higher temperatures during summer which has a positive effect on grapevine phenophase (for explanation see supplement 4) shortening and enables in such a way the cultivation of grapevine varieties with late grapes seasoning – especially these are the varieties giving very high quality wines. Grapes maturation is slower in Moravia and therefore the grapes keep higher amounts of aromatics and their varieties.<sup>33</sup>

The top quality of Moravian white wines is already known worldwide which is reflected in numerous international awards. Moravian wines even win over such winery giants as France or Germany. Czech producers are successful as well in wine cultivation and new varieties are being recognized, from red wine varieties for example Cabernet Moravia and Andre and Moravian Muscat from white wine varieties.

---

<sup>32</sup> Discover CR.cz. *Wine and viniculture regions in the Czech Republic*

<sup>33</sup> VINO-RADCE.cz. *Vinařské oblasti*

Information regarding Moravian vineyard area, sub-regions and number of Moravian wine makers are presented in the table T4 followed by brief descriptions of the individual sub-regions.

**T4 – VINEYARD AREA IN MORAVIAN WINE REGION**

MORAVIAN SUB-REGION	NUMBER OF VITICULTURAL MUNICIPALITIES	NO. OF WINE GROWERS	TOTAL AREA OF REGISTERED VINEYARDS (hectares)	TOTAL PRODUCTION POTENTIAL (hectares)
Znojmo	91	1,087	3,461.9	3,529.7
Velke Pavlovice	75	6,680	5,142.8	5,243.2
Mikulov	30	2,350	4,736.8	4,909.8
Slovacko	115	7,976	4,513.8	4,704.6
others		46	24.5	
<b>total Moravia</b>	<b>311</b>	<b>18,139</b>	<b>17,979.8</b>	<b>18,511.9</b>

**Source of data:** ÚKZÚZ Brno, odbor trvalých kultur Znojmo - Oblekovice (Ing. Jaromír Čepička, CSc., Ing. Ludvík Michlovský, RNDr. Renata Matulová), <http://www.wineofczechrepublic.cz/3-4-statistics-charts-en.html>

#### ZNOJMO SUB-REGION

Znojmo is known as a region of white aromatic wines. The main variety is Veltínské zelené. Other outstanding varieties are Muskat moravský (Muscat) and Rulandské sude (Pinot Gris, Pinot Grigio). With regard to red wines the most common variety is Svatovavřínské (St. Laurent). In this region the largest cross cellar in the world (Primitice) can be found together with wine archive with the oldest samples in the Czech Republic (Jaroslavice).

## VELKE PAVLOVICE SUB-REGION

---

In the sub-region Velke Pavlovice can be found the greatest number of registered wine producers in the Czech Republic. The leader is the town Velke Bilovice with over one thousand registered wine producers. Local heavy soil provides optimal conditions for red wine varieties, most common are Svatovavrinecke (St. Laurent) and Frankovka (Blaufrankisch = blue Frankish), and that is why this sub-region is considered the heart of red wines in our country. In spite of this are the most frequent varieties in the whole region varieties of white wine Tramin cerveny (Gewurztraminer), Veltinske zelene (Gruner Veltliner) and Ryzlink vlassky (Welschriesling).

## MIKULOV SUB-REGION

---

The Mikulov wine sub-region is the largest in the Czech Republic, vineyards occupy there an area greater than 2.5 thousand hectares. The centre of the region is the town Valtice, where has in the premises of Chateau Valtice its residence the leading Czech wine producer Vinne sklepy Valtice, a.s. The castle cellar rooms built in 15<sup>th</sup> century are used as a storage for approximately 600 thousand litres of top quality wine (total capacity is 6.5 million litres).

## SLOVACKO SUB-REGION

---

This is the northernmost wine sub-region in Moravia which consists of the vineyards around the town Uherske Hradiste. The main varieties of white wine are Ryzlink rynsky (Rhine Riesling, Riesling), Rulandske bile (Pinot blanc) and Rulandske sede (Pinot Gris, Pinot Grigio), with regard to varieties of red wine are the most common Frankovka (Blaufrankisch = blue Frankish) and Zweigeltrebe (Zweigelt).

## WINE REGION BOHEMIA

The Bohemian wine region is one of the northernmost in whole Europe. Vineyards there are usually spread over protected southern slopes near rivers the Vltava, the Elbe, the Ohre and the Berounka and majority of them is located in the neighbourhood of towns Melnik, Litomerice and Most. About two thirds of the vintages reach high quality. Higher changeability of weather has always led Czech wine makers to long-time maturation of wine in barrels. There used to be large vineyards around Prague too, but nowadays there is just one small in Prague district Troja and one at Karlstejn with a research viniculture station.<sup>34</sup>

Information regarding Czech vineyard area, sub-regions and number of Czech wine makers are presented in the table T5 below followed by brief descriptions of the individual sub-regions.

**T5 – VINEYARD AREA IN BOHEMIAN WINE REGION**

CZECH SUB-REGION	NUMBER OF VITICULTURAL MUNICIPALITIES	NO. OF WINE GROWERS	TOTAL AREA OF REGISTERED VINEYARDS (hectares)	TOTAL PRODUCTION POTENTIAL (hectares)
Melnik	37	86	434.0	441.6
Litomerice	29	46	287.6	299.1
others		21	8.9	
<b>total Czech</b>	<b>66</b>	<b>153</b>	<b>730.5</b>	<b>749.6</b>

**Source of data:** ÚKZÚZ Brno, odbor trvalých kultur Znojmo - Oblekovic (Ing. Jaromír Čepička, CSc., Ing. Ludvík Michlovský, RNDr. Renata Matulová), <http://www.wineofczechrepublic.cz/3-4-statistics-charts-en.html>

<sup>34</sup> [Vino-radce.cz](http://vino-radce.cz). *Vinařské oblasti*

## MELNIK SUB-REGION

---

At present, most of the vineyards produce Muller-Thurgau and from other varieties Ryzlink rýnský (Rhine Riesling, Riesling) and Sylvanske zelene (Silvaner) can be found there. The vineyards in the surroundings of Roudnice nad Labem and Melnik used to supply mainly Prague. Historically, in 16<sup>th</sup> century, the red wines made in Melnik were very popular – in particular Rulandske modre (Pinot noir) was famous for its delicious flavour.

## LITOMERICE SUB-REGION

---

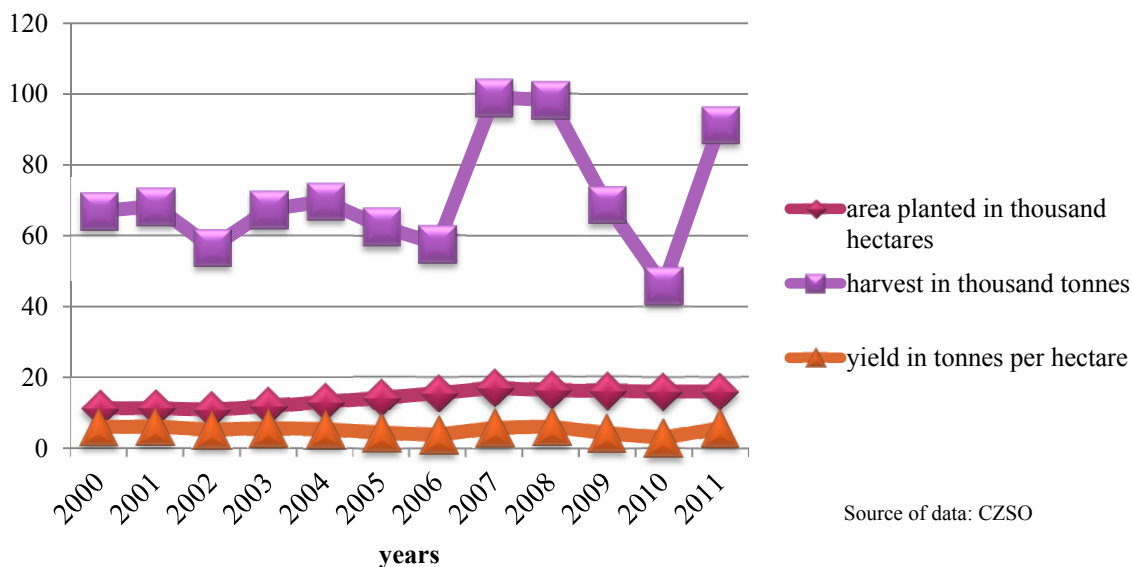
The Litomerice wine sub-region has always been the most serious rival to Melnik. Also the best known wine cellars are situated in this sub-region - the cellars in Zernoseky, built by the Cistercian order in 13<sup>th</sup> century. The prevailing grapevine varieties there were Rulandske bile (Pinot blanc) and Rulandske sede (Pinot Gris, Pinot Grigio) and Ryzlink rýnský (Rhine Riesling, Riesling).

## WINE PRODUCTION IN THE CZECH REPUBLIC 2000 – 2011

---

In the graph G7 is illustrated Czech vineyard area together with data regarding harvests and yields. Harvests, meaning literally the amount of production, are highly instable. In 2007 and 2008 were in the Czech Republic the best harvests from the analysed period and equalled around 99,000 tonnes. The lowest harvest was in 2010 and represented only around 50,000 tonnes. The highest yield of 6.04 tonnes per hectare was in 2001, the lowest in 2010 2.87 tonnes per hectare. With regard to area of vineyards was the highest planted vineyard area in 2007 17,008 hectares, the lowest in 2002 10,794 hectares.

## G7 - Wine production in the Czech Republic 2000 - 2011



### 3.3.3 CZECH IMPORT

For the purpose of writing this thesis are as imported wines considered all wines which were not produced in the Czech Republic. However, it is very important to mention, that since the Czech Republic is a member of the European Union it can be distinguished between import and intra-community trade. The import is only from the third countries, which are not members of the European Union.

Intra-community trade is in fact transport of wine from the member states of the European Union, as for the trade within the EU applies free circulation of goods. There is just a condition that the wine has to fulfil the European Community legislation requirements.

For import of wine from the third countries applies special terms and conditions. Those are regulated by the European Council and Commission Regulations. Import of wine from the third countries is treated by Council Regulation (EC) No. 1234/2007 as amended by Council Regulation (EC) No. 491/2009 and by Commission Regulation (EC) No. 555/2008. Commission Regulation (EC) No. 555/2008 from 27<sup>th</sup> June 2008<sup>35</sup> sets the rules for

<sup>35</sup> European Union. *Commission regulation (EC) No 555/2008*

implementation of Council Regulation (EC) No. 479/2008 that handles the common organization of wine trade with the focus on support programs, trade with third countries, production potential and control procedure in wine industry.<sup>36</sup> Commission Regulation (EC) No. 436/2009 from 26<sup>th</sup> May 2009 by which are given rules for implementation of Council Regulation (EC) No. 479/2008 regulates the registration of vineyards and wineries, obligatory declarations, collection of data for market monitoring, shipping documents for transport of winery products and record-keeping books established in the wine industry.<sup>37</sup>

To the conditions for the import of wine from the third countries to the European Community also belongs a duty to hand in at the entry (Council Regulation (EC) No. 1234/2007 as amended by Council Regulation (EC) No. 491/2009, article 158a paragraph 3, Commission Regulation (EC) No. 555/2008, article 40-42):

- a certificate issued in the relevant country, from which the product originally comes from, by a competent authority, which is on the list No. 6 (sheet no.6) published by the European Commission and which can be found on the website ([http://ec.europa.eu/agriculture/markets/wine/lists/index\\_en.htm](http://ec.europa.eu/agriculture/markets/wine/lists/index_en.htm))
- and a report with the results of the analysis elaborated by authority or another subject entrusted by the third country, from which the product originally comes from. The report with the results of the analysis has to be filled in separate form VI 1 (Attachment IX Commission Regulation (EC) No. 555/2008) or VI 2 (Attachment X Commission Regulation (EC) No. 555/2008).

---

<sup>36</sup> European Union. *Commission regulation (EC) No 555/2008*

<sup>37</sup> Czech Agriculture and Food Inspection Authority. *Právní předpisy týkající se vína.*

## IMPORT - 2011

---

Thanks to the State Agricultural Intervention Fund (in cooperation with the Czech Statistical Office and the Czech Winemakers' Association) and its monthly report concerning wine and vine grapes trade are available detailed information on wine import and export almost without a lag. Throughout this diploma thesis is always made an effort to work with the latest available data, in this case it would be year 2011.

Total amount of wine imported to the Czech Republic in year 2011, including import from the third countries and also intra-community trade, was nearly 1, 650 thousand hectolitres for average price 20.50 CZK per litre. White wine contribution on the total imports was 43.2 % (average price 16.70 CZK per litre), red wine contributed with 34.9% (average price 19.90 CZK per litre).<sup>38</sup>

Import of wine can be further divided into two categories according to the size of the package. Import of wine in the packages up to two litres (= bottles) was a leader with 812,134 hectolitres in 2011 (average price 27.20 CZK per litre) and majority of those wines came from Italy, Spain and Hungary. Regarding the wine imported in the packages with size over two litres was the total import in 2011 753,111 hectolitres (average price 11.40 CZK per litre) and those were especially Italian, Hungarian or Slovakian wines.

Greatest part of the imported wines originated from Italy, Spain and Slovakia. All the top ten suppliers in 2011, in order based on the quantity imported, together with the import quantities and prices are presented in the table T6. In the last column the total import price was computed for each of those top ten countries. This computation revealed the ranking according to total price of imports. Italy stayed a leader followed by France (high price per litre thanks to champagne) and Spain. Slovakia, Hungary, Germany, Chile, Moldavia, Macedonia and Serbia follows in the descending order.

---

<sup>38</sup>Státní zemědělský intervenční fond (SZIF). *Zpráva o trhu vína a vinných hroznů*.



**T6 – CZECH IMPORTS 2011 – TOP 10 COUNTRIES (suppliers)**

COUNTRY	QUANTITY (HECTOLITRES)	PRICE IN CZK/LITRE	TOTAL PRICE OF IMPORT IN CZK*
ITALY	590,693	14.30	844,690,990.00
SPAIN	238,798	13.90	331,929,220.00
SLOVAKIA	175,295	15.90	278,719,050.00
HUNGARY	142,134	18.30	260,105,220.00
MACEDONIA	88,340	11.30	99,824,200.00
FRANCE	69,437	57.60	399,957,120.00
SERBIA	48,636	13.00	63,226,800.00
GERMANY	39,463	37.30	147,196,990.00
MOLDAVIA	36,912	27.30	100,769,760.00
CHILE	26,721	51.20	136,811,520.00

\*own computation based on available data from SZIF

**Source of data:**

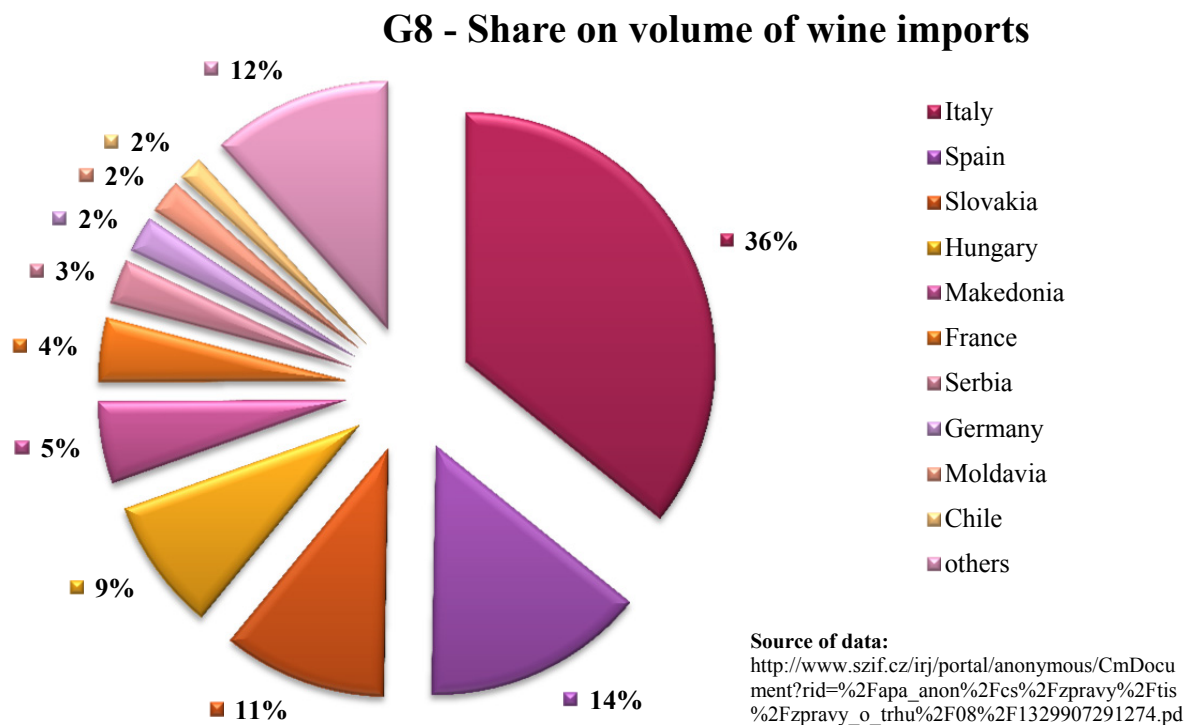
[http://www.szif.cz/irj/portal/anonymous/CmDocument?rid=%2Fapa\\_anon%2Fcs%2Fzpravy%2Ftis%2Fzpravy\\_o\\_trhu%2F08%2F1329907291274.pdf](http://www.szif.cz/irj/portal/anonymous/CmDocument?rid=%2Fapa_anon%2Fcs%2Fzpravy%2Ftis%2Fzpravy_o_trhu%2F08%2F1329907291274.pdf)

Countries from which are wines imported to the Czech Republic for the last seven years can be divided into 4 groups:

- **1<sup>st</sup> group** = Italy. From Italy the Czech Republic imported approximately 36% of the total imports in 2011. This amount is about equal to home production. The import has an upward tendency.
- **2<sup>nd</sup> group** = Slovakia, Spain and Hungary. The volume of import from those countries (together) is almost equal to the volume of import from Italy. Import from Spain is relatively stable, the imports from Slovakia and Hungary show slight fluctuations.

- **3<sup>rd</sup> group** = France, Chile, Germany and Austria. The volume of imports from the 3<sup>rd</sup> group is circa 12%. Imports from Austria are constantly increasing (in the first years after the entry of the Czech Republic to the European Union belonged to the 2<sup>nd</sup> group and nowadays is getting near the 4<sup>th</sup> group). France and Germany are experiencing sustainable increase of imports and imports from Chile peaked in 2007 and 2008.
- **4<sup>th</sup> group** = other countries. The imports from the rest of the world are around 10%. In 2011 13,500 hl of entirely sparkling wine was imported from Poland; other countries with noticeable share were Macedonia, Serbia and Moldavia.

In the graph G8 are the import quantities according to countries of origin from the table above expressed in percentages. Approximately 85% of the total volume of wine imports comes from the EU member countries.



### T7 - CZECH IMPORTS 2011 ACCORDING TO TYPES OF WINE

TYPE OF WINE	QUANTITY (HECTOLITRES)	PRICE IN CZK/LITRE	TOTAL PRICE OF IMPORT IN CZK*
CHAMPAGNE	2,408	501.20	120,688,960.00
SPARKLING WINE	41,611	42.40	176,430,640.00
SEMI-SPARKLING WINE	31,230	29.80	93,065,400.00
WHITE WINE	712,433	16.70	1,189,763,110.00
RED WINE	575,605	19.90	1,145,453,950.00
OTHER WINE	277,207	26.70	740,142,690.00
GRAPE MUST	8,760	17.90	15,680,400.00
<b>TOTAL</b>	<b>1,649,253</b>	<b>20.50</b>	<b>3,481,225,150.00</b>

\*own computation based on available data from SZIF

**Source of data:**

[http://www.szif.cz/irj/portal/anonymous/CmDocument?rid=%2Fapa\\_anon%2Fcs%2Fzpravy%2Ftis%2Fzpravy\\_o\\_trhu%2F08%2F1329907291274.pdf](http://www.szif.cz/irj/portal/anonymous/CmDocument?rid=%2Fapa_anon%2Fcs%2Fzpravy%2Ftis%2Fzpravy_o_trhu%2F08%2F1329907291274.pdf)

The table T7 provides information about imported quantities according to types of wine and identifying as a leader the white wine with 712,433 hectolitres which also has the lowest average import price per litre of 16.70 CZK. Second place belongs to red wine with 575,605 hectolitres and average import price per litre 19.90 CZK. In the last column the total price of imports according to the wine types can be found, giving the total import price of approximately 3,481,225,150 CZK.

### 3.3.4 CZECH EXPORT

In 2011, the export of wine from the Czech Republic in year-on-year comparison increased by 9% on total quantity of 251,831 hl of wine and its financial value climbed up to 550 million CZK (increase of 19%). The average unit price was around 21.70 CZK per litre.

The amount of exports according to the types of wine are presented in the table T8, identifying white wine as a leader followed by red wine both in quantity supplied and the total price of export.

## T8 - CZECH EXPORTS 2011 ACCORDING TO TYPES OF WINE

TYPE OF WINE	QUANTITY (HECTOLITRES)	PRICE IN CZK/LITRE	TOTAL PRICE OF EXPORT IN CZK*
CHAMPAGNE	130	572.70	7,445,100.00
SPARKLING WINE	1,778	85.20	15,148,560.00
SEMI-SPARKLING WINE	253	98.30	2,486,990.00
WHITE WINE	122,347	19.10	233,682,770.00
RED WINE	101,412	19.20	194,711,040.00
OTHER WINE	25,651	37.50	96,191,250.00
GRAPE MUST	261.9	12.90	337,851.00
<b>TOTAL</b>	<b>251,831</b>	<b>21.70</b>	<b>550,003,561.00</b>

\*own computation based on available data from SZIF

**Source of data:**

[http://www.szif.cz/irj/portal/anonymous/CmDocument?rid=%2Fapa\\_anon%2Fcs%2Fzpravy%2Ftis%2Fzpravy\\_o\\_trhu%2F08%2F1329907291274.pdf](http://www.szif.cz/irj/portal/anonymous/CmDocument?rid=%2Fapa_anon%2Fcs%2Fzpravy%2Ftis%2Fzpravy_o_trhu%2F08%2F1329907291274.pdf)

*For comparison, in 2010 the Czech Republic exported 231,775 hectolitres of wine for average unit price of 19.20 CZK per litre, giving the total export price of approximately 445 million CZK.*

White wine contribution on total exports in 2011 was 48.6% (122,347 hectolitres) with the average unit price of 19.10 CZK per litre. Red wine contributed with 42% (94,623 hectolitres) for the average unit price of 18.90 CZK per litre.

Vast majority of imports, almost 95%, went to traditional purchaser **Slovakia**, the quantity in 2011 was 235,240 hectolitres for average unit price of 19.10 CZK per litre giving in total amount around 458 million CZK; in 2010 it was 217,020 hectolitres for the total price of approximately 383 mil. CZK.

Other countries where the Czech Republic exports wine, and the information are available for 2011, is **Poland** with 7,800 hectolitres (total price of 43 million CZK) and **the Netherlands** with 27 hectolitres (total price of 426,000 CZK). From both of those countries the Czech Republic actually imported more than exported, in case of Poland was the import 13,500 hl for the total price of 41 million CZK and in case of the Netherlands 936 hl for the total price of 7 million CZK.<sup>39</sup>

<sup>39</sup> Svaz vinařů ČR, PŮČEK Martin. *Obchod s vínem – rok 2010*

Since 2005 the export from Poland is experiencing a sustainable increase but its share on total volume of wine exports is only 8.1 %. In 2009 the financial amount of exports decreased because higher volumes of wine in packages over two litres were exported (bulk wine). In 2010 and 2011 the financial value of exports rapidly increased despite the fact that the quantity of exported wine declined.

With regard to wine trade with Slovakia - since the entry of the Czech Republic in the European Union more wine was imported from Slovakia than exported there. In 2009 the volume of trade balance equilibrated and in 2011 was exported about 34% of wine more than it was imported (in financial means it was about 61% more). But in majority of those transactions it is concerning only the 'transport' of wine from one country to another and most of those wines does not have an origin in the export country.

The Czech Republic also exports wine to Japan. There are not available overall data for the year 2011, but in year 2010 was the total amount of exports 43 hectolitres for the price of 0.5 mil. CZK. Companies Znovin Znojmo<sup>40</sup> and Bohemia Sekt<sup>41</sup> both mention exports to Japan.

The growth of wine export in the Czech Republic is positive as already notified in the opening paragraph in this section. In 2005 was the volume of export equal to 5% of home production, in 2006 10%, in 2007 25 %, in 2008 and 2009 22%, in 2010 40 per cent and in 2011 even 65%. However those results are influenced not only by the amount of exports and harvests, but also by the fact that not all the wine exported from the Czech Republic has to originate from that country. On the other hand it does not have an effect on the final balance of wine on the territory of the Czech Republic. It is just as with the fluctuation in home production.<sup>42</sup>

Export of wine, as well as already mentioned import, can be further divided into two categories according to the size of the package. Based on available data for the period from January to November 2011 was exported approximately 155,606 hectolitres of wine in the

---

<sup>40</sup> KÚTNER Dušan (E15). *Pavel Vajčner: Pokles prodeje levných vín nás netrápí, naopak se nám daří zvyšovat prodejní cenu*

<sup>41</sup> Marketing & Media.cz. *Bohemia sekt prodal 23,9 mil. lahví. January 2012*

<sup>42</sup> Svaz vinařů ČR, PŮČEK Martin. *Obchod s vínem – rok 2011*

packages over 2 litres for the average unit price of 13 CZK/litre and approximately 93,804 hectolitres of wine in the packages up to two litres (bottles) for the average unit price of 34.20 CZK. White wine was the leader in the packages over 2 litres and red wine in terms of the bottles up to two litres. Average unit price of red wine was lower both for packages up to and over two litres.<sup>43</sup>

To ensure the sustainable growth of exports the increase of exports of bottled wine (wine in packages or containers up to two litres) is especially important. Also due to the fact that in the Czech Republic there is not enough vine grapes to cover the home wine consumption.

---

### 3.3.5 SUMMARY ON INTERNATIONAL WINE TRADE IN THE CZECH REPUBLIC

---

Since the EU entry (2005) the increasing trend of import was established and continued also throughout the year 2011. The increase is more or less linear, roughly 80,000 hl per year, probably also thanks to the fact that harvest in 2009 was not very high, in 2010 was extremely low and in 2011 only average. The home production since the EU entry markedly fluctuates and it is impossible to do predict its development. The volume of exports is also linearly increasing by almost 40,000 hl per year. Due to this fact the supply on the market decreased which is connected to the lower domestic production over the last years and which had an effect on the price of the vine grapes. The highest supply on the market was thanks to good harvest during the years 2008 and 2009 - the domestic price of the vine grapes was the lowest and as a result the warehouse stocks of wine increased. During the years 2010 and 2011 the situation turned round and the accumulated warehouse stocks started to be drawn.

In cases of export, import and consumption, based on the correlation coefficients (supplement 1), the trends are relatively stable in the last seven years. Less stable is the overall supply and mainly the domestic vine grapes production. With regard to the supply and demand of the wine trade in the Czech Republic, in the last seven years the supply four

---

<sup>43</sup>Státní zemědělský intervenční fond (SZIF). *Zpráva o trhu vína a vinných hroznů.*

times slightly exceeded the demand and three times it was vice versa. For the stabilization of those fluctuation are used the warehouse stocks of wine. Generally can be said that the warehouse stock before the entry to the EU were in the Czech Republic below the average of other European wine producer countries.

**T9 - TRADE BALANCE OF WINE TRADE IN THE CR (2005 – 2011) in mil. CZK**

YEAR	IMPORT	EXPORT	DIFFERENCE
2005	-2,290	147	-2,143
2006	-2,699	193	-2,506
2007	-3,143	293	-2,850
2008	-3,275	415	-2,860
2009	-3,139	385	-2,754
2010	-3,260	464	-2,796
2011	-3,563*	550	-3,013

\* different figure than in the previous part which was based on own computation

**Source of data:**

[http://www.szif.cz/irj/portal/anonymous/CmDocument?rid=%2Fapa\\_anon%2Fcs%2Fzpravy%2Ftis%2Fzpravy\\_o\\_trhu%2F08%2F1329907291274.pdf](http://www.szif.cz/irj/portal/anonymous/CmDocument?rid=%2Fapa_anon%2Fcs%2Fzpravy%2Ftis%2Fzpravy_o_trhu%2F08%2F1329907291274.pdf)

In the table T9 the trade balance of wine trade in the Czech Republic is presented. In 2011 the negative balance for the first time exceeded 3 billion CZK. As well as the volume also the value of the exports is increasing in the long term. Financial value of the wine consumed on the domestic market (together with domestic production and VAT in case of the imported bulk wine) is moving between 5 and 6 billion CZK.

## 4 ANALYSIS

---

This part is above all dealing with the situation in the Czech Republic (occasionally contrasted or compared with the situation in different countries). Although in the analysis and identification of market trends are taken into account all the trends on the world market. Brief overview on the Czech beverage market is provided further developed for the beer and spirit markets. Special focus is on the wine consumption in the Czech Republic, its current situation and possible future developments.

### 4.1 ANALYSIS OF BEVERAGE CONSUMPTION

---

For any company, while analysing its position on the market, it is always essential to know well its customers as well as its competitors. In my point of view it is of the same importance, especially while analysing trade, to know the product's or commodity substitutes, if possible. By stating this I am not trying to say that beer (presented below) and wine are the perfect substitutes but according to me they have a lot in common and are the closest competitors in the alcoholic beverage segment of the beverage market which I would try to show in the following analyses.

Beer is a fermented alcoholic beverage brewed from malted cereal grain (such as barley) and flavoured with hops. And the Czech Republic is known for its positive relationship to this beverage. Not only regarding beer production, but especially with regard to beer consumption.

The average beer per capita consumption in Czech Republic is somewhere between 150 and 160 litres per capita per year and belongs to the highest in the world. The Czechs were ranked first several times and are fighting for the first place every year usually with the Irish, Germans, Austrians and Australians. The beer consumption of the Czech Republic started to be monitored in year 1948 and was around 76.2 litres of beer per year per capita. Since then the beer consumption experienced long term increase and in 1971 for the first time beat the 160 litres (till 2011 it was together thirteen times). The beer consumption per capita in the Czech Republic peaked in 2005 when it equalled 163.5 litres per capita per



year. In the following years the Czech beer consumption was on a decline but even despite this decrease were the Czech able to hit the first place with 150.7 litres of beer per capita per year.

Beer has a long tradition in the Czech Republic and belongs to the most favourite drinks (it is the most popular alcoholic drink in our country). One factor of this popularity is definitely its price. Price of beer in different world countries differs but especially in the developed Western European countries it is much higher than its price in the Czech Republic. For example in France or Ireland the pint of beer is being sold for the average price of 5 EUR.

In the table T10 below are shown countries with the highest price per pint of beer as provided by the British server [pintprice.com](http://pintprice.com) - the publicly accessible database which provides the data of 206 world countries including the Czech Republic. It is unique because it was beer consumer themselves who created (and still creates and update) it. The cheapest beer is logically in the poorest world countries especially in Africa and the beer prices there are comparable with the bottled beer sold in Czech supermarkets.

**T10 - COUNTRIES WITH THE HIGHEST BEER PRICE ACCORDING TO PINTPRICE.COM**

COUNTRY	PRICE PER PINT OF BEER IN (GBP)	PRICE PER PINT OF BEER IN CZK*
GREENLAND	£7.35	221
NORWAY	£6.08	183
QATAR	£6.00	180
DJIBOUTI	£5.47	164
SINGAPORE	£5.00	150
SWEDEN	£5.00	150
FRANCE	£4.95	149
UNITED ARAB EMIRATES (UAE)	£4.86	146

\*computed based on the exchange rate taken from the Czech National Bank (CNB) – supplement 3

Source of data: [www.pintprice.com](http://www.pintprice.com), [http://byznys.lidovsky.cz/kam-se-vyplati-zajet-si-na-pivo-a-kde-je-lepsi-mit-soudek-sebou-p78-/moje-penize.asp?c=A090820\\_131335\\_moje-penize\\_abc](http://byznys.lidovsky.cz/kam-se-vyplati-zajet-si-na-pivo-a-kde-je-lepsi-mit-soudek-sebou-p78-/moje-penize.asp?c=A090820_131335_moje-penize_abc)

The average price per half a litre of a beer (in a pub) in the Czech Republic is around 30 CZK and it is very often even lower price than it is paid for the non-alcoholic beverages and water is no exception. The consumer prices of the non-alcoholic beverages increased by 124.9% in the period from 1989 to 2008 and the consumption still increases. Over the last sixty years the non-alcoholic beverages consumption increased more than twenty nine times, from 10.1 litres per capita per year in 1949 to almost 300 litres per capita per year in the last years. (296 litres per capita per year in 2009)<sup>44</sup>. Reasons for this massive growth can be found in the wide range of beverages available nowadays on the Czech market – different fruit and vegetable drinks, mineral waters, lemonades and juices, together with their infinitely various package shapes and materials.

Moreover, in the Czech Republic only a small percentage of restaurants in the Czech Republic provide a free tap water with the food. The number of restaurant providing this, in Western Europe absolutely common, service is increasing and till today it is said to be around one third of all restaurants in Prague. However the Czechs still sometimes prefer to take a beer with a lunch. Not only the money factor applies there but also the fact that beer suits well to the traditional Czech cuisine. In spite of this grace the beer consumption in our country is on a decline as already mentioned. This can be caused by rising beer price; the increase was around 240.3 % in the period from 1989 to 2008 mainly due to the greater consumption tax.

Also the prices of other alcoholic beverages increased in the Czech Republic in the same period 1989 – 2008. For wine was the increase approximately 99% and 96.8 % for spirits. In total for the alcoholic beverage segment the increase of consumer prices totalled 151.3 per cent.

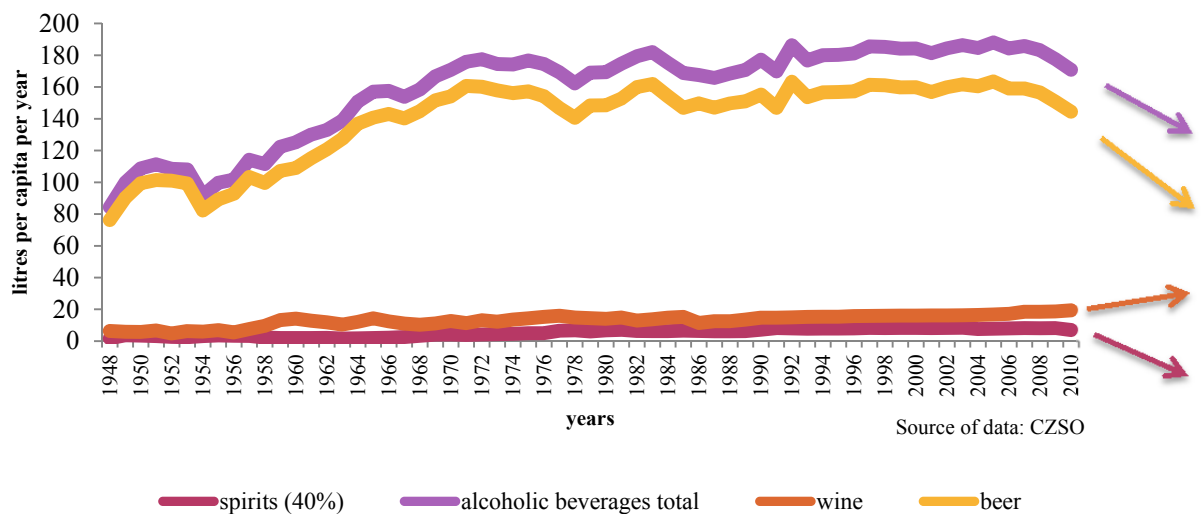
The total alcoholic beverages consumption in the Czech Republic is on a decrease since 2007 and in the year 2010 equalled 170.9 litres per capita per year. Reasons for it might be the alcohol prices, consequences of the financial crisis or the fact that Czech people tend to save more in the last years. Among other reasons also the increasing tendency of the modern society to ‘live healthier’ might play its role.

---

<sup>44</sup> Český statistický úřad (CZSO). *Trendy ve spotřebě potravin*

In the graph G9 below is graphically illustrated the Czech consumption of wine, beer and spirits (40%) together with the total consumption for those three categories for the period 1948 to 2010. Decreasing trends can be identified in beer and spirits (40%) which highly influenced the total alcoholic beverages consumption to be decreasing as well. The only segment showing signs of increase was in year 2010 the segment of wine.

**G9 - Consumption of alcoholic beverages in the CR  
1948 - 2010**



## RECENT CONSUMPTION OF BEER AND SPIRITS IN THE CZECH REPUBLIC

Based on an article published recently by Tomas Medek from Cesky rozhlas<sup>45</sup> the total consumption of alcoholic beverages continued to decrease during 2011.

The consumption of spirits in the Czech Republic in year 2011 was the lowest in the last ten years; the exact data are not yet available. This announced decline in the spirit consumption, based on information from Czech producers, is said to be a result of long-term trend which has several causes, mainly the 'changing lifestyle' together with the increase of consumption tax implemented from 1<sup>st</sup> January 2010 which continued to influence the consumption in 2011. Illegal production of spirits, which amounts up to one quarter of the total alcohol production in the Czech Republic, also contributes to the drawdown of market with spirits.

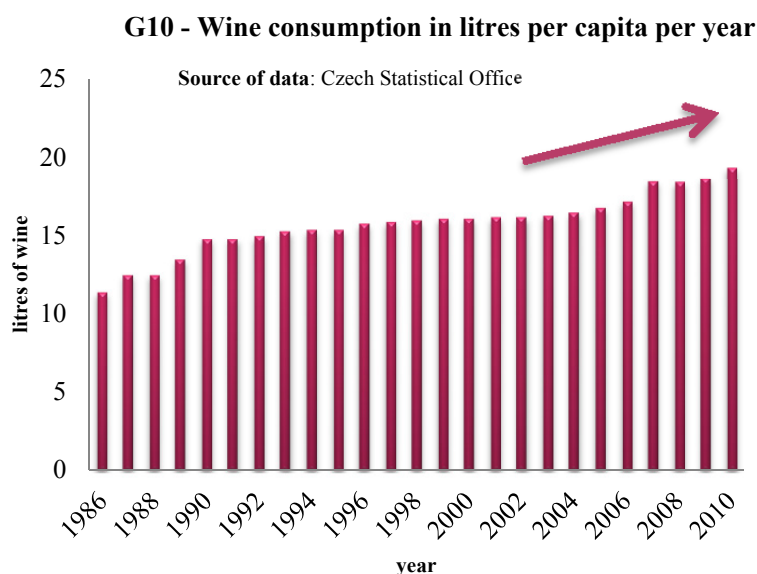
<sup>45</sup> Medek, T. (Český rozhlas). *Tvrký alkohol Češi omezili na desetileté minimum, vína piji stále více.*

Trends on beer market are similarly decreasing and consumers are moving more towards the bottled beer. Generally the sales of bottled beer are increasing to the detriment of the beer on tab. This logically implies that more people buy beer and consume it at home. This trend of home consumption during the last years, if carried on, can have negative effect in the long term on the restaurants but most probably is not directly associated with the effects of the financial crisis.

## 4.2 WINE CONSUMPTION IN THE CR & CONSUMER BEHAVIOUR

---

Despite the fact that world wine consumption is decreasing, as already pointed out in the literature overview when talking about the global wine trade, the wine consumption in the Czech Republic is continuously increasing since 1986 (illustrated in graph G10).



In 1948 was the wine consumption per capita per year in Czechoslovakia less than 5 litres. In 2010 this amount increased markedly to 19.4 litres per capita per year in the Czech Republic but in spite of this huge growth the Czech still fall behind the European average which is in the long term around 30 litres per capita per year.<sup>46</sup>

---

<sup>46</sup> Ekolist.cz. ČSÚ: *Plocha vinic v ČR se od roku 1920 téměř ztrojnásobila*

It is especially home consumption of wine which is increasing similarly as the home consumption of beer. Approximately 70 per cent of wine sales take place in the supermarkets. The financial crisis probably had an effect on wine consumption in restaurants and bars, since the sales in those distribution channels fell. From my viewpoint it could be also the case that restaurants during the crisis wanted to save more money and started to buy cheap products of low quality which discouraged the consumers from the purchase. But based on my own experience this is not only the case during the crisis – the quality of wine per glass is often very low.

On the other hand, Czech consumers started to prefer cheaper wines also to the detriment of beer and spirits, on which is not imposed the consumption tax. The consumption of wine in 2011 according to Martin Pucek from Czech Winemakers' Association was on an upswing and currently is somewhat around 20 litres per capita per year.

The increasing demand for cheap alcohol on the Czech market leads to increased exports of cheap wines from abroad. Some of those wines are then incorrectly labelled and presented as wines from Moravia. The percentage of wines with wrongly marked or unknown origin is increasing which harms the good reputation of Moravian wines.

Among the economic reasons which have an impact on the wine consumption can be mentioned for instance increased welfare or the fact that since 1<sup>st</sup> May 2004 is Czech Republic a member of the European Union. Thanks to that membership which brings intra-community trade with very low trade barriers and no tariffs customers have wider selection of wines available in shops. Customers are better off, but if we look at the situation from another point of view it is much more difficult for the Czech producers to succeed on the market and beat the foreign competition. To be able to stay competitive producers and sellers of wine should know their customers well. They should try to merge their possibilities with the needs and wants of their customers in order to be able to predict the possible future changes in the industry, adapt to them, and therefore succeed in the business.

Company Vinium Velké Pavlovice is a producer of wine from southern Moravia. The company perceives the increased competition and therefore wanted to learn more about

Czech consumers and their preferences regarding wine. Agency Factum Invenio<sup>47</sup> executed on their request a consumer survey. The results of the research were published in January 2011. Main findings of the survey are that wine is preferred by people with higher education who live in households with income over 20,000 CZK per month and also that more women drink wine in comparison with men. The research also showed that people usually connect wine with special occasions, experiences and atmosphere.

Majority of the 996 participating respondents (18+) prefer Czech wines and most often reason for this patriotism is the fact that they do not orientate well in the foreign wine offer. Regarding the brand-loyalty that is usually average, majority of the respondents have their favourite and most preferred brand, but they are not afraid to experiment and try new wines. Decisions to buy are often done straight at the point-of-sale, in a shop. However, the key factors for the consumers remain the wine region and the producer, which they see as a guarantee of a quality. Prices and eventual sales have usually impact on the size of a purchase, but do not motivate for changing the brand.

Another very important feature for the consumers is the bottle itself. They care about its look, shape, colour as well as the label. Glass bottle is preferred and by majority of respondents also considered as appropriate and representative enough to be a present. Moreover, when people want to give a wine as a present they buy more expensive brands. Wine in a box, despite its popularity for instance in Great Britain, it is by majority of Czech consumers perceived as cheap and degrading the quality as well as wines with the price lower than 50 CZK / 1 litre.

According to the research average Czech household buys around four bottles of wine per month. Most often place where people buy wines in the Czech Republic are hypermarkets and supermarkets. Special wine shops are less popular and very few people buy wine on the internet or abroad.

---

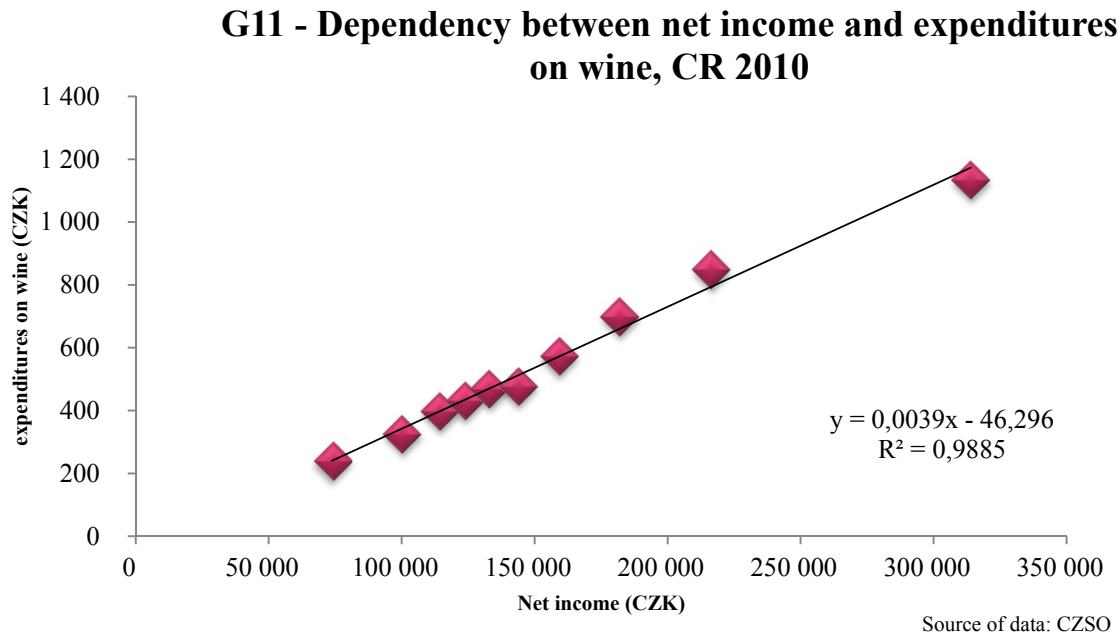
<sup>47</sup> Lidovky.cz. *Vino pije více ženy a vzdělání lidé ukázal průzkum*

## DEPENDENCY BETWEEN INCOME AND EXPENDITURES ON WINE

In the following graph G11 the dependency between net income and expenditures on wine is shown for year 2010. The analysis proves that with higher income the expenditures on wine increase but this does not necessarily implies that households with higher expenditures consume more wine than the households with lower income. This possible bias can be caused by the fact that households with higher income most probably buy more expensive wine than the households with lower income.

It would be possible to clarify and evaluate the situation if data on wine consumption according to income group were provided.

The graph G11 is based on available data on *households by level of net money income per person – deciles* provided by the Czech Statistical Office (in the supplements).



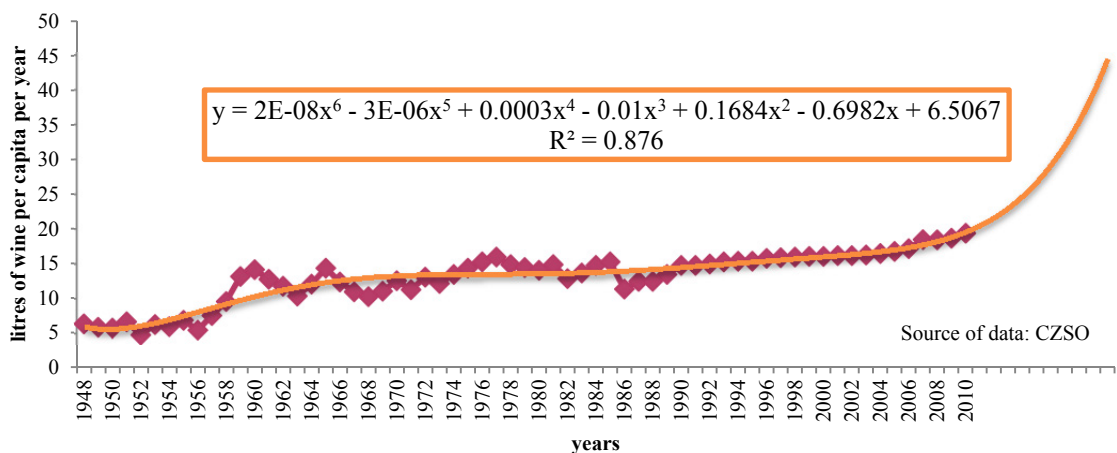
## FUTURE WINE CONSUMPTION IN THE CZECH REPUBLIC - PROGNOSIS

Czech wine consumption shows an increasing trend in the past years. By undertaking a prognosis would be predicted its future development. Reliable data are available only up to year 2010, for this reason the prognosis would be done also for year 2011.

Trend lines based on linear, exponential, logarithmic, power and polynomial function were created on the basis of available time series on wine consumption provided by the Czech Statistical Office. Data are available for the period 1948 to 2010, together 63 years, which seems enough for creation of a prognosis. On the other hand there are many things which have to be taken into account while making conclusions based on the results of such prognosis. The consumption trend can very easily change the opposite way as a consequence of factors which were (are) not included in this simple analysis.

Trend line which best described the development of wine consumption was based on polynomial function as derived by the coefficient of determination ( $R^2$ ). It is a measure used in statistics and in this prognosis it is used to identify how well the future outcomes are likely to be predicted by the particular model. The outcomes of prognosis based on polynomial function are presented in graph G12. Despite the relatively high coefficient of correlation (it is often the case with polynomial function since they are more 'past-oriented') those functions are unreliable for prognosis.

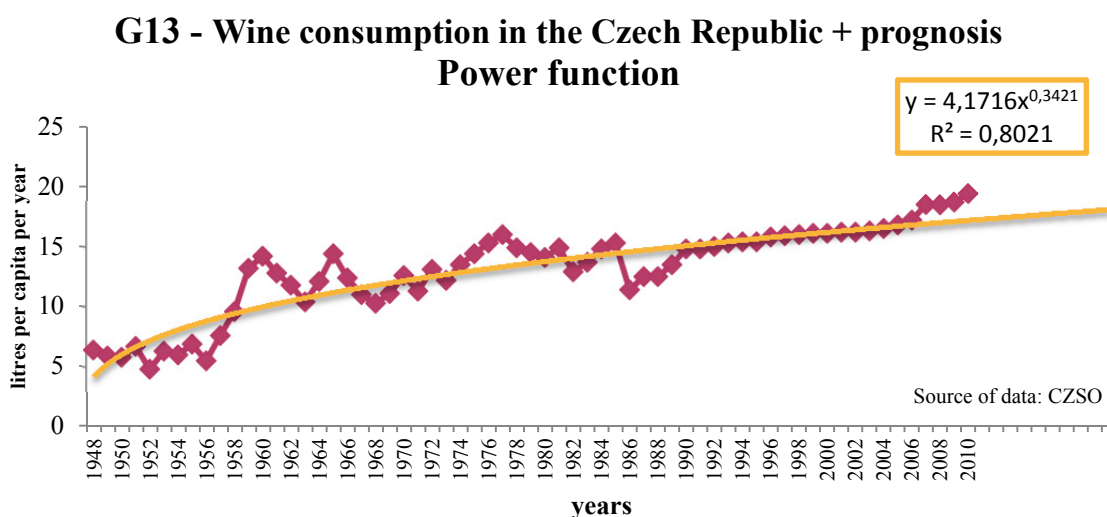
**G12 - Wine consumption in the Czech Republic + prognosis polynomial function**





In spite of the low reliability of the polynomial functions I believe that the predictions in this case might actually follow this trend at least for the years 2011 and 2012. My opinion is supported by the predictions made by Ministry of Agriculture of the Czech Republic and other authorities that predicts the wine consumption in the Czech Republic to be 20 litres per capita per year for the 2011 (some even predicted the consumption to beat this amount already in 2010). On the other hand I have to admit that it is highly improbable that the Czech wine consumption would in 10 years approach the limit 45 litres per capita per year.

When excluding the polynomial function, the highest coefficient of determination was derived for the power function,  $R^2 = 0.8021$ . The trend line together with the predicted development is illustrated in graph G13.



The trend line of power function is in my opinion too distant from the last years of available data series. That is why I believe, that this function is not suitable for this prognosis either. It shows slower increasing development in the future when comparing with the polynomial function, but in my point of view the development is too slow.

None of the accomplished prognosis seemed 100% realistic to me, but the predicted variables of prognosis based on exponential function could be also close to reality. The table T11 with numerical results of them all, except for the polynomial function, follows:

### T11 - PROGNOSIS OF WINE CONSUMPTION FOR YEARS 2011 - 2015

function	function equation	R <sup>2</sup>	Y <sub>2011</sub> x=64	Y <sub>2012</sub> x=65	Y <sub>2013</sub> x=66	Y <sub>2014</sub> x=67	Y <sub>2015</sub> x=68
<b>POWER FUNCTION</b>	$y = 4.1716x^{0.3421}$	0.8021	17.31	17.40	17.49	17.58	17.67
<b>LINEAR FUNCTION</b>	$y = 0.1763x + 7.4294$	0.7776	18.71	18.89	19.10	19.24	19.42
<b>EXPONENTIAL FUNCTION</b>	$y = 7.5104e^{0.0157x}$	0.698	20.51	20.84	21.17	21.50	21.84
<b>LOGARITHMIC FUNCTION</b>	$y = 3.6042\ln(x) + 1.5716$	0.79	16.56	16.62	16.67	16.73	16.78

\* x from the regression equation expresses a number of the period (e.g. for year 1948 is x equal to 1 and etc.)

**Own computation**

First possibility to evaluate the results and compare them with the real numbers would be when the data for year 2011 are published. Important for now is that all predictions show an ascendant tendency despite the cases of logarithmic and power function where the predicted numbers are most probably too low, but they still keep to the increasing trend.

### 4.3 MARKET TRENDS

Among the supplementary aims of this thesis belong the suggestions for Czech wine producers and sellers regarding their competitiveness. My main suggestion for them is to follow and try to adapt to the market trends.

In the diagram CH3 are shown the main identified global market trends, which would be described and presented, with using examples, on the wine industry. Market trends are not changing every day, they develop over time and they very often infiltrate to more market segments.



## COCOONING

---

**COCOONING** is a term given to commercially significant trend of ‘staying at home’ that is said to lead to increased electronic shopping from home. Cocooning is the act of hiding from the normal social environment, which might be normally associated with unfriendliness or otherwise unwelcomed. Since the term was coined, the trend has continued.

The technology made cocooning easier than before or at least made a transformation to a socialized cocooning. Thanks to mobiles and internet, which allow for example ‘work at home’ option, people still live in physical isolation but at the same time maintain contact with the others through for example social nets or other types of telecommunication. Technology which allow ‘work at home’ options

The term cocooning was popularized in 1990’s by marketing consultant and trade forecaster **Faith Popcorn** in her book *The Popcorn Report: The Future of Your Company, Your World, Your Life*. The author divides cocoons into:

- **Socialized cocoons** – retreat to privacy of their homes, for example staying at home watching videos instead of going to the cinema
- **Armoured cocoons** – establish a barrier, such as network firewalls, virtual private networks (VPN), surveillance, cameras or spyware-blocking; in order to protect themselves from the external threats
- **Wandering cocoons** – travel with a technological barrier that insulates them from the environment, e.g. people all the time wearing earphones living in their own world

*Popcorn, F.: Cocooning has been in our bank for thirty years. That's how early we discovered cocooning, and cocooning is about staying home, creating a safe place around you, the gardeners being the barrier, between the garden and the alarm systems being the barrier, filtration systems for water and air, working at home (...) every inch of it you have, you have some of this (...) how many days can I work at home? That's cocooning*

Cocooning became noticeable also in wine industry. People are socializing less and prefer to buy a bottle of wine and drink it in the comfort of their own home. Many products such as wine refrigerators and wine coolers are nowadays common on the market.

**Wine in bag-in-box** is an example of a product perfectly suited to home production. Bag-in-box is a special type of package – paper box with valve and with wine stored inside in a bag made out of a special plastic material.



source: <http://www.12ozprophet.com/forum/showthread.php?t=123872&page=14>

This package protects the wine against the ultraviolet radiation and helps to prolong its durability thanks to unique filling technology without the access of oxygen. Special pouring valve also restrain the oxygen access meaning the open package has the same durability as closed package. This allows for serving wine per glass without worries regarding the quality of the rest of the wine,<sup>48</sup> most often size for the wine in bag-in-box is 3 litres. This package also provides great design possibilities (pictures below).

Wine in bag-in-box is much-favoured in the USA but also in the United Kingdom, France, Sweden, Australia etc. Its popularity is increasing but majority of consumers still prefer the traditional glass bottle. In some countries, including the Czech Republic is this type of package wrongly associated with wine of lower quality and is often confused with wine-in-box (lower quality wine package).



Sources of pictures: <http://popsop.com/3667>, <http://thehairpin.com/2011/06/the-wine-purse-three-bottles-in-a-bag-in-a-box>, <http://www.thegreenhead.com/2010/03/baggy-wine-coat-box-of-wine-tote.php>

<sup>48</sup> Alga-vino.cz. *Bag-in-box vína*

## HEALTH

---

Alcohol in general is said to have negative effects on the human health. That is why European Union few years ago introduced its strategy against harmful alcohol consumption, recently also the World Health Organization introduced its global strategy – both of the mentioned studies are mainly dealing with the topic of excessive alcohol consumption and try to fight the alcohol addictions and consumption among the youth and more or less vouched the positive effects of wine.

I believe that anything, not only alcohol, consumed in giant amounts can actually now or later become harmful to the health.

With regard to wine there exist two groups of ‘judges’ – one strictly keeps to the fact that wine is an alcohol and thus it is unhealthy, the second group by contrast promotes its positive effects on the human organism. The subject of this diploma thesis is not to pass the judgement, but I would like to mention some of those positive effects and merge them with current market trends and products.

Wine when consumed regularly and moderate, for men is recommended the daily potion of 400 ml, for women 200 ml, can have positive effects in terms of lowering the danger of blood vessel and heart diseases by decreasing the levels of cholesterol in the blood. Wine contains also phenols which have high antioxidant and anti-inflammatory effects and dissolve blood clots. One of the phenols – resveratrol is found in the skin of vine grapes where works as a protection against the moulds. Higher amounts of resveratrol are generally concentrated in red wines and Pinot Noir is said to contain the highest amount of this active substance. Resveratrol has anti-haematological effects and also positively influences the digestion process (extracts from grapes are often used in dietetics).<sup>49</sup>

---

<sup>49</sup> Vino Forum.cz. *Vino a zdraví*

Medicinal effects of wine were already revealed in the Ancient Egypt, however there is still the one thing which is perceived negatively - it is the alcohol content. Since alcohol drifts out the vitamins and dehydrates.

Currently, there are efforts made to decrease the amount of alcohol in wine in general and boost the production of non-alcoholic wines.

## INTERNET

---

Internet is all around us, infiltrated in all markets and the portion of trade done through the internet is still increasing. According to Euromonitor International the biggest amount of world trade in wine is also done throughout the internet.<sup>50</sup>

Majority of Czech wine producers offers their wines on the internet and there are also many internet shops selling wine in the Czech Republic but the portion of wine trade which takes place on the internet is really low. The most often place for a wine purchase is currently a hyper- or supermarket but with the increasing ‘cocooning’ there is a chance that the internet trade in wine will grow.

## ENVIRONMENT

---

Especially during the last decade the trend of ‘being environmentally friendly’ happened to be a big thing. People started to feel more environmentally conscious but they do not only make an effort to drive their cars less and thanks to it have healthier planet. Something like new concept of life was introduced a popularized globally – healthy living as perceived nowadays consist of looking after the environment but it is also connected with the healthy lifestyle in terms of exercise and of course food.

---

<sup>50</sup> Euromonitor International: Kuiper, M., *Trends and Opportunities shaping the global wine industry*.

Statement ‘the best products are bio products’ is believed in by majority of people. Content of pesticides, herbicides and other undesirable substances which might harm human organism is in bio products strictly regulated if not entirely forbidden. Organic farming is very popular globally, usually among the families with higher incomes since prices of bio products are often much higher than those of conventional products. It would be logical to expect high prices for bio wines too, but the prices of bio wines are not that different from the prices of ‘normal wines’ at least not in the Czech Republic<sup>51</sup> - they are affordable.

Bio farming (organic farming) together with bio wine making experienced a big boom in the Czech Republic after the entry to the EU. This increased interest was among other things influenced by high subsidies for eco-farmers. Since 2009 the Czech bio wine makers tried to establish exact regulations concerning the Czech bio wine production. At the beginning of March 2012 they finally agreed on them with the European Union and after 3 years the certified bio wines can be again produced in the Czech Republic which can imply that the increase of the bio production.<sup>52</sup>

## COOL

---

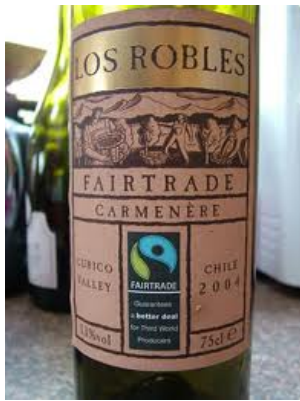
Words such as trendy, cool, design, outfit and etc. describe perfectly the opinions of younger generations of today’s society. People like doing things which they perceive to be ‘IN’ and in accordance with the market trends. It is modern to be ‘green’ and it is modern to support ‘fair trade’, so people do it and enjoy it. This is great not only because people are enjoying doing things they should do, more important is that by doing such things they are actually able to help the others. In case of ‘fair trade’ they help people in other parts of the world to get fair pay and make up their living. Being ‘green’ can be looked at as helping the future generations.

---

<sup>51</sup> Vinopark.cz. *Zájem o bio víno roste, jeho cena se ale od běžného příliš neliší.*

<sup>52</sup> Agris.cz. *Netradiční chuť. V Česku se znovu začne vyrábět biovíno*





Sources of pictures: <http://www.simonwoods.com/wine-tasting/fair-enough-results-of-the-annual-fairtrade-wine-awards/>, <http://www.trulyresponsible.org/food/fair-trade-wine/>, <http://www.animalaidshop.org.uk/wine/fair-trade-wine-case>

Despite all those modern words, there is one thing which majority of wine lovers would never want to change. It is the glass bottle. Currently a wide variety of packages for wine is available, as presented the on the pictures below, but the glass bottle is still a clear leader on the market.



Sources of pictures: [http://blogs.laweekly.com/squidink/2010/07/barokes\\_canned\\_wine\\_chardonnay.php](http://blogs.laweekly.com/squidink/2010/07/barokes_canned_wine_chardonnay.php), <http://www.jizni-svah.cz/2010/07/krabice-plechovky-pytle-na-vino.html>, <http://viralswagger.net/2011/03/22/wine-in-a-pouch/>, <http://winniepooh886.wordpress.com/2007/11/12/some-intersting-package-i-find-on-the-internet/>

One more ‘cool thing’ example at the end that was invented according to current market trends and is a mix of ‘trendy’ and ‘designed’ together: **Ice Tropez**.

During hot summers people mostly drink beer, flavoured beer drinks or wine mixed with water if they decide to drink alcohol. Wine is not typical summer drink, but this might change a little bit with the discovery of wine cocktails such as the one described below. Ice Tropez is available also in non-alcoholic option (Ice Tropez 0%).

*Icetropez.com<sup>53</sup>: Ice Tropez is a cocktail which came to life in Saint Tropez in the south of France. This sparkling wine cocktail is mainly based upon a rosé wine, mixes up with a flavour of peach and carbonated water. A new generation of consumers will be seduced by the modern styled bottle containing a refreshing drink, with an amazing touch of fruit flavours to embellish your senses.*

*Ice Tropez has been created by Grégoire Chaix, owner of a Bar du Port, Saint Tropez’ most trendy hang out. Being close to a very hip crowd he felt the need for a drink carrying that same identity and fine taste.*

*The appealing package is designed by Christophe Pillet, known in France for his attribution to the architecture of hotels like Hotell Sezz in ‘le XVI arrondissement de Paris’, the new Lacoste store on ‘les Champs’ and of course...le Bar du Port in the harbour of Saint Tropez.*



source: <http://prudence.ie/?p=3610>

---

<sup>53</sup> Icetropez.com. *About*

## 5 EVALUATION

---

At the first place I would like to dedicate the attention to the hypothesis. In the second part of this section I would like to briefly add the opportunities and threats of the Czech wine industry.

### HYPOTHESIS

---

***Hypothesis formulation: Wine trade in the Czech Republic is expected to grow.***

Based on available data, opinions of professionals reviewed while working on this thesis and own conclusion learned and derived based on analyses, the hypothesis that wine trade in the Czech Republic is expected to grow should be **accepted**.

List of arguments supporting the hypothesis acceptance follow:

- Trade with wine in the Czech Republic is continually increasing over a period longer than 7 years. Increases export as well as import.
- Export to Japan is already established and is expected to grow. Recently companies Znovin Znojmo and Bohemia Sekt export to Japan.
- Asian consumption of alcohol is expected to grow – new territories for export, new emerging markets.
- Consumption in the Czech Republic is constantly increasing since 1986 and based on opinion of professionals from beverage industry, Czech Winemakers' Fund and Ministry of Agriculture and it is expected to grow even further and soon beat 20 litres of wine per capita per year.
- Czech consumption is expected to grow also based on own prognosis computations.
- Czech wine consumption despite its growth in the past is still low in comparison with the European average which is around 30 litres per capita per year meaning there is a high potential.
- Since Czech consumption is most probably going to grow (data for 2011 are not yet published) and thanks to the preference of Czech consumers towards wine produced in the Czech Republic there are not expected any problems with wine sales.

- Czech wine production is highly instable dependent on many factors and especially weather, but eventual fluctuations in production would be covered by warehouse stocks of wine or in case of rapid fluctuations by import, which would increase the trade anyway.
- If Czech wine production would rapidly decrease caused by any means and the warehouse stocks would be enough to cover the fluctuation. Then exports could actually decrease, but since imports are rising by much higher rate it would still not stop the trade from growing.

Very few arguments were found in contradiction with the hypothesis. Some showed negative signs for the Czech wine industry but did not stop the trade from growing (example are the two last bullet points above written in purple). The main one however was the possible implementation of consumption tax on wine which is also viewed as a potential threat to the Czech wine industry. The topic of it seems to be left for the nearest future by the politicians. Therefore it is sketched in with the other threats to Czech wine industry in the following section and high importance was not assign to this factor while accepting/rejecting the hypothesis.

#### OPPORTUNITIES AND THREATS OF CZECH WINE INDUSTRY

---

The **opportunities** of Czech wine industry are as mentioned in the diagram CH4 below mainly connected to exports to new territories such as China, taken into account that the Czech Republic production has its limits meaning high volume export is out of track. Czech producers should rely on the quality (not quantity) and increase the good reputation of Czech wine and its awareness for instance by participating in domestic and international wine tastings, fairs and exhibitions.

Another opportunity for Czech wine makers might be the flavoured wine cocktail (example described in section 4.3 Market trends). There is no doubt that this wine cocktail should not be compared with the high quality wine, but it is an ideal substitute for lemonade or a flavoured beer during hot summer days when people prefer lighter and refrigerant drinks. Those cocktails are usually associated with rosé wines which are also starting to increase shares and position on the market.

#### CH4 – OT ANALYSIS

### Opportunities

- export to new emerging markets (Asia)
- participation on domestic and international wine tastings and exhibitions
- increase the awareness about Czech wine quality
- flavoured wine cocktails
- rosé

### Threats

- competition from abroad coming with cheap wines on the market
- **consumption tax?**
- changes in legislations, regulations and bans coming from the authorities such as the European Union

The first thing which came to my mind while thinking about the threats to Czech wine industry was the weather, but despite the fact that farmers cannot influence it, it is not a threat for them in the right sense. Weather is the same for everyone, no one can influence it nor predict it but everybody is dependent on it...but it is agriculture...

With regards to **threats** in the right sense is of highest importance to mention especially the proposal of implementing a consumption tax on wine. It is just a proposal for now and many people including in the first line the Czech wine makers fight against it. For now the early implementation seems improbable, but nobody can predict the future decisions of Czech government.

Czech and Moravian wine makers are apart from the consumption tax also afraid of potential future inflow of cheap poor quality wines from vineyards planted in the EU after 2015 when the ban on vineyards expansions terminates. Individual member countries can prolong the ban to 2018, but Czech winemakers and the Czech Ministry of Agriculture want the ban to be prolonged for the whole EU and they would fight for it in April 2012 during Directorate general for agriculture and rural development.<sup>54</sup>

<sup>54</sup> E15.cz. Češi jdou do boje proti rozšiřování vinic

## 6 CONCLUSION

---

Both the aims and the supplementary objectives of the diploma thesis were accomplished. Overview and evaluation of the wine trade in the Czech Republic was given in the literature overview and evaluated together with its possible future developments in analytical parts of this thesis. The formulated hypothesis that *wine trade in the Czech Republic is expected to grow* was accepted.

The position of wine trade in the Czech Republic has strengthened over the last years and an increasing trend was established after the entry of the Czech Republic in the European Union (2004-2005). The Czech wine trade balance is negative and in 2010 for the first time exceeded 3 billion CZK but exports as well as imports are constantly growing and especially the imports at sky-high growth rates and there are no sign yet of this to be changed.

Wine consumption in the Czech Republic also experiences substantial upswing since 1986 and currently is around 20 litres of wine per capita per year. Which still seems relatively low when compared with the average consumption in the European Union which is approximately 30 litres of wine per capita per year. But there is a high potential for growth of the Czech wine consumption based on the already established trend and supported by the opinions of authorities in the subject field.

The financial value of the wine consumed on the domestic market (together with domestic production and VAT in case of the imported bulk wine) is moving between 5 and 6 billion CZK and based on the expected increases of the consumption it is also assumed to go further up.

Identification of Czech consumers' needs and wants together with the monitoring and following of current market trends would become essential for the Czech wine producers in order to maintain their consumers, be able to attract the new ones and beat the cheap competition coming from abroad.

## 7 BIBLIOGRAPHY AND REFERENCES

---

1. KRAUS Vilém, KUTTELVAŠER Zdeněk, VURM Bohumil. *Encyklopedie českého a moravského vína*. Melantrich, 1997. 226 p. ISBN: 80-7023-250-1
2. JOHNSON Hugh, ROBINSONOVÁ Jancis. *Svetovy atlas vína*. 2.vyd. Praha: Euromedia group k.s. – Knižní klub, 2009. ISBN 978-80-242-2421-3, str.15
3. ANDERSON Kym, NELGEN Signe. *Global wine markets, 1961 to 2009: Statistical compendium*. Adelaide: University of Adelaide Press, 2009. 467 p. ISBN 978-0-9870730-1-3
4. ANDERSON Kym. 'Excise and Import Taxes on Wine vs. Beer and Spirits: An International Comparison', March 2010. University of Adelaide. Economic papers 29 (2): 215-28, June 2010. (online, January 2012). Available at: <<http://www.adelaide.edu.au/wine-econ/pubs/articles/>>
5. Primary Industries and Resources South Australia (PIRSA), Market Research and Development Unit. Wine Markets and Consumers. Government of South Australia: Opportunities and Challenges for the Langhorne Creek wine region. December 2010. (online, January 2012). Available at: <[http://www.pir.sa.gov.au/\\_\\_data/assets/pdf\\_file/0005/167540/langhorne\\_wine\\_report\\_web.pdf](http://www.pir.sa.gov.au/__data/assets/pdf_file/0005/167540/langhorne_wine_report_web.pdf)>
6. ANDERSON Kym, NELGEN Signe. How does Australia rank in the various quality segments of the world's wine markets? Wine Policy Brief No. 3. University of Adelaide. March 2011. (online, January 2012). Available at: <[https://www.adelaide.edu.au/wine-econ/papers/Wine\\_Brief\\_3\\_Shares\\_of\\_global\\_wine\\_value\\_0211.pdf](https://www.adelaide.edu.au/wine-econ/papers/Wine_Brief_3_Shares_of_global_wine_value_0211.pdf)>
7. Wine Institute.org. *World Vineyard Acreage by Country*. (online, January 2012). Available at: <<http://www.wineinstitute.org/files/WorldVineyardAcreagebyCountry.pdf>>
8. SVATOŠ Miroslav, a kolektiv. *Zahraniční obchod, teorie a praxe*. 1.vyd. Praha: Grada Publishing, 2009. 368 p. ISBN 978-80-247-2708-0
9. Commonwealth Bank.com.au. *International Wine Industry Review*. Global Market Research: Commodities: Agri updates. June 2011. (online, December 2011). Available at: <[http://www.commbank.com.au/corporate/research/publications/commodities/agricultural-insights/2011/160611-International\\_Wine.pdf](http://www.commbank.com.au/corporate/research/publications/commodities/agricultural-insights/2011/160611-International_Wine.pdf)>
10. Euromonitor International: KUIPER, Marlous. *Trends and Opportunities shaping the global wine industry*. April 2011. (online, December 2011). Available at: <[www.nomacorc.com/assets/Euromonitor.pdf](http://www.nomacorc.com/assets/Euromonitor.pdf)>



11. Wines of Czech Republic.cz. *History in dates*. (online, September 2011). Available at: <<http://www.wineofczechrepublic.cz/r-3-1-1-1-history-in-dates-en.html>>
12. Vinařské družstvo svatý Václav. *Historie vinařství v Čechách*. (online, March 2012). Available at: <<http://www.machalka.cz/html/hceskvin.html>>
13. KRAUS Vilém a kolektiv. *Réva a víno v Čechách a na Moravě*. Radix spol.s.r.o., 1999. 284 p. ISBN 80-86031-23-3
14. Discover CR.cz. *Wine and viniculture regions in the Czech Republic*. (online, February 2012). Available at: <<http://www.czech.cz/en/Discover-CZ/Lifestyle-in-the-Czech-Republic/Tradition/Wine-and-viniculture-regions-in-the-Czech-Republic>>
15. Ekolist.cz. *ČSÚ: Plocha vinic v ČR se od roku 1920 téměř ztrojnásobila*. October 2010. (online, January 2012). Available at: <<http://ekolist.cz/cz/zpravodajstvi/zpravy/csu-plocha-vinic-v-cr-se-od-roku-1920-temer-ztrojnásobila>>
16. Ministerstvo zemědělství. *Situační a výhledová zpráva: Réva vinná a víno*. July 2011. (online, September 2011). Available at: <[http://eagri.cz/public/web/file/128921/SVZ\\_2011.pdf](http://eagri.cz/public/web/file/128921/SVZ_2011.pdf)>
17. Vino-radce.cz. *Vinařské oblasti* (online, January 2012). Available at: <<http://vino-radce.cz/vinarske-oblasti/>>
18. European Union. *Commission regulation (EC) No 555/2008*. (online, January 2012). Available at: <<http://eur-lex.europa.eu/Notice.do?mode=dbl&lang=cs&ihmlang=cs&lng1=cs,en&lng2=bg,c s,da,de,el,en,es,et,fi,fr,hu,it,lt,lv,mt,nl,pl,pt,ro,sk,sl,sv,&val=473418:cs&page=>>>
19. Czech Agriculture and Food Inspection Authority (Státní zemědělská a potravinářská inspekce). *Právní předpisy týkající se vína*. December 2011 (online, January 2012). Available at: <<http://www.szpi.gov.cz/docDetail.aspx?docid=1006609&nid=&chnum=2>>
20. Státní zemědělský intervenční fond (SZIF). *Zpráva o trhu vína a vinných hroznů*. Prosinec 2011. Published February 2012. (online, February 2012). <[http://www.szif.cz/irj/portal/anonymous/CmDocument?rid=%2Fapa\\_anon%2Fcs%2Fzpravy%2Ftis%2Fzpravy\\_o\\_trhu%2F08%2F1329907291274.pdf](http://www.szif.cz/irj/portal/anonymous/CmDocument?rid=%2Fapa_anon%2Fcs%2Fzpravy%2Ftis%2Fzpravy_o_trhu%2F08%2F1329907291274.pdf)>
21. Svaz vinařů ČR, PŮČEK Martin. *Obchod s vínem – rok 2010*. November 2011. (online, February 2012). Available at: <<http://www.svcr.cz/file/326/>>
22. ŠTĚRBOVÁ Ludmila. *Zahraničně obchodní politika ČR a její integrace do EU*. 1.vyd. Plzeň: Vydavatelství a nakladatelství Aleš Čeněk, 2009. 375 p. ISBN 978-80-7380-191-5



23. KŮTNER Dušan (E15). *Pavel Vajčner: Pokles prodeje levných vín nás netrápí, naopak se nám daří zvyšovat prodejní cenu.* (online, March 2012). Available at: <<http://www.wineofczechrepublic.cz/monitoring2500-pavel-vajcner-pokles-prodeje-levnych-vin-nas-netrapi-naopak-se-nam-dari-zvysovat-prodejni-cenu-cz.html>>
24. Marketing & Media.cz. *Bohemia sekt prodal 23,9 mil. lahví.* January 2012. (online, March 2012). Available at: <<http://mam.ihned.cz/c1-54333020-bohemia-sekt-prodal-23-9-mil-lahvi>>
25. Svaz vinařů ČR, PŮČEK Martin. *Obchod s vínem – rok 2011.* (online, March 2012). Available at: <<http://www.svcr.cz/file/372/>>
26. Český statistický úřad (CZSO). *Trendy ve spotřebě potravin.* February 2011. (online, February 2012). Available at: <[http://www.czso.cz/csu/tz.nsf/i/trendy\\_ve\\_spotrebe\\_potravin20110216](http://www.czso.cz/csu/tz.nsf/i/trendy_ve_spotrebe_potravin20110216)>
27. MEDEK Tomáš (Český rozhlas). *Tvrký alcohol Češi omezili na desetileté minimum, vína pijí stále více.* March 2012. (online, February 2012). Available at: <[http://www.rozhlas.cz/zpravy/spolecnost/\\_zprava/1030240](http://www.rozhlas.cz/zpravy/spolecnost/_zprava/1030240)>
28. Lidovky.cz. *Víno pijí více ženy a vzdělání lidé ukázal průzkum.* January 2011. (online, February 2012). Available at: <[http://relax.lidovky.cz/vino-piji-vice-zeny-a-vzdelani-lide-ukazal-pruzkum-fwp-/ln-zajimavosti.asp?c=A110110\\_102618\\_ln-zajimavosti\\_glu](http://relax.lidovky.cz/vino-piji-vice-zeny-a-vzdelani-lide-ukazal-pruzkum-fwp-/ln-zajimavosti.asp?c=A110110_102618_ln-zajimavosti_glu)>
29. SPAHNI Pierre. *The International Wine Trade.* 2<sup>nd</sup> edition. Cambridge: Woodhead Publishing Limited, 2000. 416 p. ISBN 1 85573 542 3
30. Alga-vino.cz. *Bag-in-box-vína.* (online, March 2012). Available at: <<http://www.alga-vino.cz/kategorie/bag-in-box-vina-65.html>>
31. VINO Forum.cz. *Víno a zdraví.* (online, March 2012). Available at: <<http://www.vinoforum.eu/vino-a-zdravi.php>>
32. Vinopark.cz. *Zájem o bio víno roste, jeho cena se ale od běžného příliš neliší.* (online, March 2012). Available at: <<http://www.vinopark.cz/magazin/clanek/zajem-o-bio-vino-roste-jeho-cena-se-ale-od-bezneho-prilis-nelisi/>>
33. Agris.cz. *Netradiční chuť. V Česku se znovu začne vyrábět biovíno.* (online, March 2012). Available at: <<http://www.agris.cz/clanek/175104>>
34. Ictropez.com. *About.* (online, March 2012). Available at: <<http://www.ictropez.com/>>

35. E15.cz. *Češi jdou do boje proti rozšiřování vinic*. March 2012. (online, March 2012). Available at: <<http://zpravy.e15.cz/byznys/zemedelstvi/cesi-jdou-do-boje-proti-rozsirovani-vinic-748741>>

## 8 SUPPLEMENTS

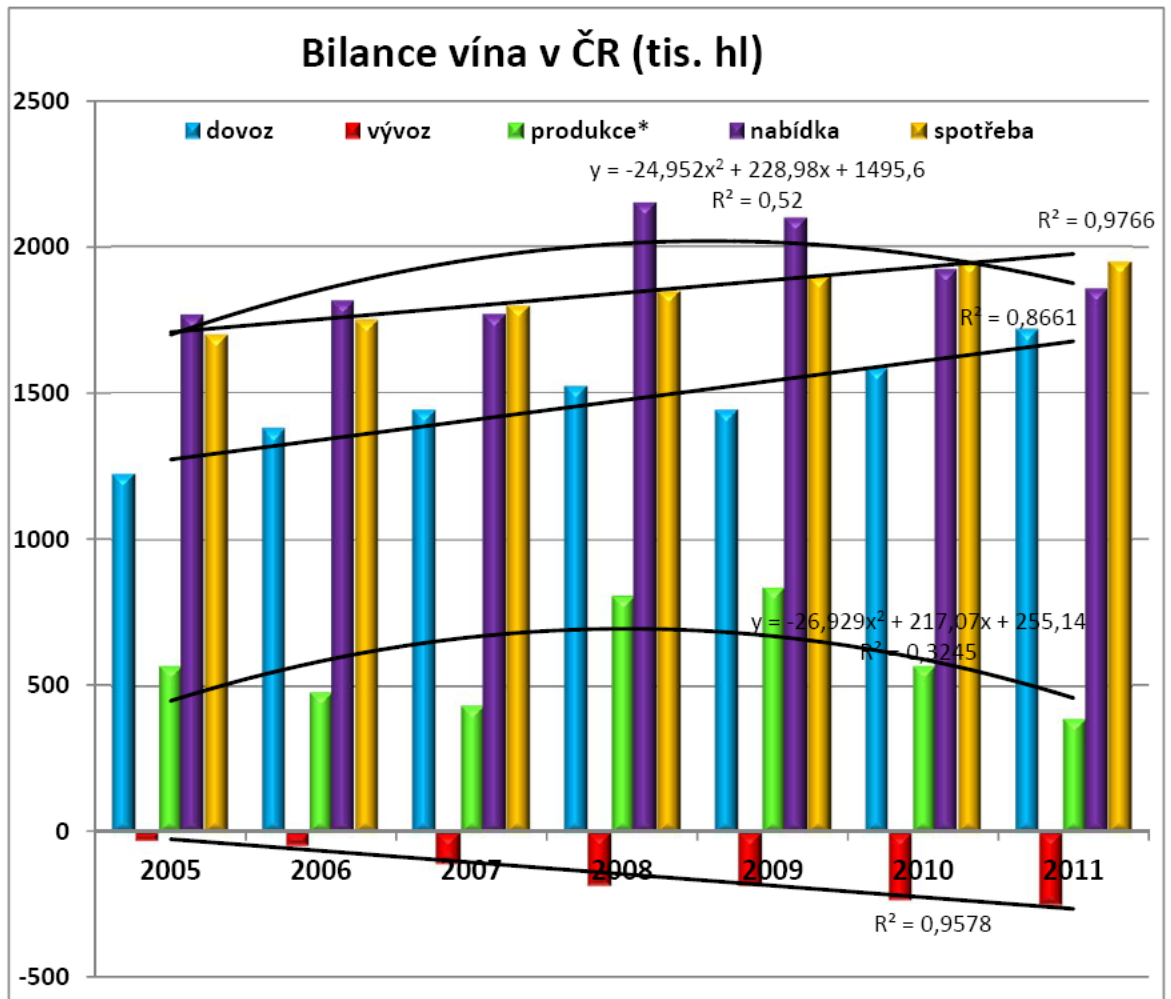
---

### **List of supplements:**

- Supplement 1 – Balance of wine trade in the Czech Republic
- Supplement 2 – Number of viticultural municipalities
- Supplement 3 – Exchange rates for GBP, quarterly averages
- Supplement 4 – Special terms & measures
- Supplement 5 – Abbreviations
- Supplement 6 – List of graphs, tables and charts used in the Diploma thesis

SUPPLEMENT 1 – BALANCE OF WINE TRADE IN THE CZECH REPUBLIC

Source: <http://www.svcr.cz/obchod-s-vinem-2011>



Produkce\* - je uvedena produkce ze sklizně předcházejícího roku

SUPPLEMENT 2 – NUMBER OF VITICULTURAL MUNICIPALITIES

Source: <http://www.wineofczechrepublic.cz/3-4-statistics-charts-en.html>

**Numbers of viticultural municipalities**

– dle zákona č.321/2004 Sb. - konečný stav ploch registrace vinic.

Vinařská podoblast	Počet vinařs. obcí	Počet katastr. území	Počet vinič. tratí	Plocha vinič. tratí (ha)*	Počet pěstitelů	Plocha registr. vinic (ha)	Plocha registr. vykloučených vinic (ha)	Celkový produkční potenciál (ha)
<b>Oblast Čechy</b>								
Mělnická	37	49	91	1 679	86	434,0	7,6	441,6
Litoměřická	29	39	80	1 131	46	287,6	11,5	299,1
Ostatní					21	8,9		
<b>Celkem Čechy</b>	<b>66</b>	<b>88</b>	<b>171</b>	<b>2 810</b>	<b>153</b>	<b>730,5</b>	<b>19,1</b>	<b>749,6</b>
<b>Oblast Morava</b>								
Mikulovská	30	33	182	10 317	2 350	4 736,8	173,0	4 909,8
Slovácká	115	130	406	15 486	7 976	4 513,8	190,5	4 704,6
Velkopavlovická	75	80	319	15 203	6 680	5 142,8	100,4	5 243,2
Znojemská	91	106	224	7 830	1 087	3 461,9	67,8	3 529,7
Ostatní					46	24,5	0,4	
<b>Celkem Morava</b>	<b>311</b>	<b>349</b>	<b>1 131</b>	<b>49 196</b>	<b>18 139</b>	<b>17 979,8</b>	<b>532,1</b>	<b>18 511,9</b>
<b>Celkem ČR</b>	<b>377</b>	<b>437</b>	<b>1 302</b>	<b>52 006</b>	<b>18 292</b>	<b>18 710,3</b>	<b>551,2</b>	<b>19 261,5</b>

Poznámka:

K celkové produkční ploše 19 261,5 je nutno připočítat 385 ha – 2% v rámci přístupových smluv s EU

\* - Orientační plocha viničních tratí zjištěná z digitálních zákresů viničních tratí ve Státní mapě vrstevnicové 1 : 5000

Pramen: ÚKZÚZ Brno, odbor trvalých kultur Znojmo - Oblekovice (Ing. Jaromír Čepička, CSc., Ing. Ludvík Michlovský, RNDr. Renata Matulová)

SUPPLEMENT 3 – EXCHANGE RATES FOR GBP, QUARTERLY AVERAGES

Source: [http://www.cnb.cz/cs/financni\\_trhy/devizovy\\_trh/kurzy\\_devizoveho\\_trhu/prumerne\\_mena.jsp?mena=GBP](http://www.cnb.cz/cs/financni_trhy/devizovy_trh/kurzy_devizoveho_trhu/prumerne_mena.jsp?mena=GBP)

**Kurzy devizového trhu - čtvrtletní průměry**

**měna: GBP, množství: 1**

rok	leden až březen	duben až červen	červenec až září	říjen až prosinec
1991	53,226	51,831	51,345	51,678
1992	50,961	51,903	52,136	44,608
1993	42,813	44,086	44,248	43,948
1994	44,500	43,944	43,527	44,164
1995	42,871	41,650	41,752	41,261
1996	41,492	42,158	41,519	44,234
1997	46,153	50,805	54,991	55,659
1998	56,953	54,930	52,203	49,764
1999	54,068	57,148	55,585	57,042
2000	58,156	59,516	57,866	58,173
2001	54,985	55,781	54,911	53,435
2002	51,665	48,388	47,621	48,508
2003	47,245	44,894	46,028	46,005
2004	48,343	48,025	47,003	44,798
2005	43,272	44,401	43,410	43,090
2006	41,676	41,265	41,704	41,667
2007	41,813	41,643	41,080	37,940
2008	33,771	31,308	30,300	30,326
2009	30,393	30,359	29,402	28,633
2010	29,152	30,022	29,914	28,844
2011	28,551	27,555	27,808	29,508
2012	30,061			

## SUPPLEMENT 4 - SPECIAL TERMS & MEASURES

---

- **Per capita** = per every single person  
*Per capita*, meaning literally *per person per year*, it is the most often measure used for expressing consumption in individual countries. It takes into account the population and though makes the results suitable for different comparisons, since it is less dependent on the country size.
- **Pint** = liquid volume measure, mostly used as an equivalent to half litre, precise measures are mentioned for an interest.  
1 US pint = 0.473176473 litres  
1 GBP (Imperial pint) = 0.568261485 litres
- **Urbarium** is a term that means a register of fief ownership and includes the right and benefits that the fief holder has over its serfs and peasants. It is an important economic and legal source of medieval and early modern feudalism. Urbariums were also used to record land rent and stock.
- **Phenophase** = visible stage of development that a plant must pass through if it is to grow (and reproduce) successfully.
- **Hogshead** = measure primarily applied to alcoholic beverages such as wine, ale or cider. 1 hogshead = 238.480942 litres (after the conversion to imperial measure in 1824 1 hogshead is equal to 238.7 litres).
- **Measure** = unit of area equal to 1918 square metres
- **Bucket** = old unit of capacity. 1 bucket = 56.589 litres.
  
- Main measures used in the diploma thesis:
  - **Hectolitre** = hl = 100 litres
  - **Litre** = 1000 ml
  - **Ton** = 1000 kg
  - **Hectare** = 10,000 m<sup>2</sup>

## SUPPLEMENT 5 - ABBREVIATIONS

<b>WEX</b>	<b>Western European wine net exporters:</b> France, Italy, Spain, Portugal
<b>NWE</b>	<b>New World Exporters:</b> Argentina, Australia, Canada, Chile, New Zealand, South Africa, the United States, Uruguay
<b>EU</b>	European Union
<b>EU-15</b>	<b>European Union members as of March 2004:</b> Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, the United Kingdom
<b>EU-27</b>	<b>European Union members as of January 2007:</b> Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, the United Kingdom
<b>US</b>	The United States of America
<b>PIRSA</b>	Market Research and Development Unit of Primary Industries and Resources South Australia
<b>CR</b>	The Czech Republic
<b>CZK</b>	Currency in the Czech Republic – Czech Koruna
<b>CNB</b>	Czech National Bank
<b>UAE</b>	United Arab Emirates
<b>CZSO</b>	Czech Statistical Office
<b>GBP</b>	Currency in the United Kingdom -British pound (£)
<b>USD</b>	Currency in the United States – American dollar (\$)
<b>VAT</b>	Value added tax
<b>GST</b>	Goods and services tax (Australia)



## SUPPLEMENT 6

### LIST OF GRAPHS, TABLES AND CHARTS USED IN THE DIPLOMA THESIS

---

#### Graphs

no.	title	page
G1	The volume of exports as a percentage of world wine production	11
G2	Imports as % of beverage wine consumption volume	11
G3	Global wine production and consumption	21
G4	World vineyard acreage	22
G5	Global wine production and consumption 2000 - 2009	23
G6	Vineyard area in Bohemia	29
G7	Wine production in the Czech Republic	43
G8	Share on volume of wine imports	47
G9	Consumption of alcoholic beverages in the CR 1948 - 2010	56
G10	Czech wine consumption in litres per capita per year	57
G11	Dependency between net income and expenditures on wine, CR 2010	60
G12	Wine consumption in the Czech Republic + prognosis, polynomial function	61
G13	Wine consumption in the Czech Republic + prognosis, power function	62

#### Tables

no.	title	page
T1	Shares of world wine export values, by quality, 2009 (in %)	17
T2	Shares of world wine import values, by quality, 2009 (in %)	18
T3	Vineyard area in the Czech Republic	37
T4	Vineyard area in Moravian wine region	39
T5	Vineyard area in Bohemian wine region	41
T6	Czech imports 2011 - top 10 countries (suppliers)	46
T7	Czech imports 2011 according to types of wine	48
T8	Czech exports 2011 according to types of wine	49
T9	Trade Balance of wine trade in the CR	52
T10	Countries with the highest beer price according to pintprice.com	54
T11	Prognosis of wine consumption for years 2011 - 2015	63

#### Charts

no.	title	page
CH1	Volume shares of global still wine market	16
CH2	Value shares of global still wine market	16
CH3	Market trends	64
CH4	OT Analysis	74