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Development and trade competitiveness of the European wine sector: A gravity analysis of intra-EU flows

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Abstract

This study analyses the intra-EU trade of the world's chief wine exporters, namely Italy, France and Spain. Using an augmented version of the gravity model we empirically assess which of the three countries have experienced growth in intra-EU market trade. Effects of transportation costs, as well as demand and supply gaps between origin and destination countries, on the size of bilateral trade flows were specifically taken into account. Estimation results highlight the differences between bulk and bottled wine, providing useful information for European producers and policy-makers involved on regulation of wine sector. As concern bulk wine, Italy and Spain show no element of growth in competitiveness, while France shows a statistically significant annual decrease. In contrast, estimates for bottled wine all show a growth tendency, albeit with a different magnitude of coefficients. Italy is the country with the highest trend, followed by Spain and France which instead has a decidedly modest growth in export values. However, analysis of pricing policies shows that France does not appear to target an increase in export volumes so much as an increase in average unit price, while Italy, and especially Spain, have a tendency to increase export volumes, also to the detriment of prices.

Keywords: Export; Regression model; Trends

1. Introduction

In recent decades wine has become a widely consumed product, generating trade flows which affect not only traditional producing countries and consumers (Anderson et al., 2003; Anderson and Nelgen, 2011; Mariani et al., 2012) but also producers in the so-called New World[1] which have competed to broaden their supply geographically. The impetus of globalisation and the excellent image of the European lifestyle have contributed to the considerable spread of this drink (Dal Bianco et al., 2013, Cembalo et al., 2014): new markets and new consumers are gaining familiarity with wine. Trade is intensifying, and international competition is becoming ever fiercer (Mariani et al., 2014; Dal Bianco et al., 2016).

In this context the European Union (EU) remains by far the world's largest market as regards wine production and consumption, as well as the chief exporter and importer. The worldwide acreage used for the grapevine is 7.5 million hectares, about half of which is in the EU. Spain, France and Italy alone account for 34.5% of global grapevine acreage. The world production of wine (excluding juices and must) in 2014 was approximately 270 million hectolitres, 47% of which is produced in Italy, France and Spain.[2] Table 1 reports the data for the years 2000 and 2012 for the main European consumer countries and the four-country market (USA, Russian Fed, China and Japan) which accounts for over two billion inhabitants, viewed generally with great attention by its international competitors. The reduction in per capita consumption assumes

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[1]USA, Australia, Argentina, Chile, South Africa, New Zealand.

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[2]OIV: State of the Vitiviniculture World Market – December 2014 (http://www.oiv.int/oiv/info/enconjoncture?lang=en).

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Table 1
Per capita wine consumption (in litres) in Europe and in the main consumer countries.
Source: Our calculations from OIV data.

Country	2000	2012	Var.	Country	2000	2012	Var.
France	58.4	47.7	−10.7	Belgium	24.4	26.9	2.5
Germany	24.5	24.4	−0.1	Luxembourg	62.1	70.0	7.9
Italy	54.0	37.1	−16.9	Netherlands	19.5	22.8	3.3
Denmark	33.7	32.6	−1.1	Ireland	11.0	17.5	6.5
Greece	26.0	25.6	−0.4	United Kingdom	16.4	19.9	3.5
Portugal	44.5	42.5	−1.9	Sweden	13.3	21.1	7.7
Spain	34.9	19.9	−15	Czech Republic	6.6	17.4	10.9
Austria	30.9	29.7	−1.3	Slovakia	11.7	12.6	0.9
Hungary	30.8	20.3	−10.5	Slovenia	34.4	37.7	3.3
Latvia	6.16	3.58	−2.6	USA	7.5	9.2	1.7
Bulgaria	14.4	11.6	−2.8	Russian Fed.	3.2	7.3	4.1
Romania	23.5	12.1	−11.4	China	0.8	1.3	0.5
				Japan	2.1	2.7	0.6

particular importance in Italy, France, Spain, Hungary and Romania while in seven other EU countries the decrease is less substantial (Di Vita et al., 2014). The same table also indicates the countries in which per capita consumption increased between 2000 and 2012. The market area which has seen a decrease in per capita consumption has a population of 330 million, while that with a positive sign includes the USA, Russia, China and Japan.

World wine exports in 2014 reached 105 million hectolitres. This means that about 40% of overall production is traded internationally, further testifying to the economic importance of this product. However, the EU would seem to be less affected by competition from New World products: in 2014, about 77% of imported wine came from another EU member state, thereby indicating an overall prevalence of trade between member states over extra-EU imports. It is widely held that this may be due to a generalised lack of trust on the part of consumers from traditional wine-producing countries in overseas wines, thought to be of poorer quality (Cicia et al., 2013; de Magistris et al., 2014). A further element supporting this hypothesis stems from the fact that, upon examining non-EU wine imports, the prevalence of bulk over bottled wines may be observed, a singular case among the world's main markets. Thus there may well be a strategy to import cheap wines from non-EU countries used in blending to produce low-range products. If this holds for traditional wine-producing countries, it must nevertheless be stressed that the import of non-EU wine today accounts for a significant share for non-producing European countries, especially the UK.

It would therefore seem that, although globalisation has greatly affected this sector as well, the EU has remained less adversely affected than other markets. A major question, and one which constituted the research topic of the present contribution, is whether the EU's trade in wine follows the same dynamics as its international counterpart or, alternatively, it is conditioned by factors that favour intra-EU trade. Such factors clearly include the customs union which allows for the free movement of goods and services but also geographical and cultural proximity. Our research set out to assess the determinants of the intra-EU wine trade which, as is well-known, has no tariff or non-tariff barriers, and is little affected by exchange rates. In this context we propose an analysis to gain insight into the evolutionary dynamics of the international vitivinicultural scenario and the performance of the world's three main historical competitors: Italy, France and Spain.

Our empirical strategy tried to address two needs: on one hand we appraise the competitive performance of the three countries concerned on two markets which, together, represent little less than 50% (both in value and in volume) of world imports of EU wine: Germany and the UK. To do so, we decided to push the analysis at the most convenient data detail (six categories-HS8 aggregation).

Secondly, using an augmented version of the gravity model we empirically assess which of the three countries experienced a growth of intra-EU trade: the effects of transportation costs, as well as demand and supply gaps between origin and destination countries, on the size of bilateral trade flows are specifically taken into account. Estimates are provided for two wider category aggregation: bulk and bottled wines.

2. The performance of Italy, France and Spain compared

With a view to comparing the competitive position of the three large world competitors, namely Spain, France and Italy, we opted to analyse two markets which together account for 50% of worldwide imports of EU wine: Germany and the United Kingdom. Below we describe the particular characteristics as well as the trends in trade between 2000/01[3] and 2013/14. Six wine categories were considered, as resulting from the aggregation of 106 customs items. The categories were as follows: (a) sparkling and semi-sparkling wines; (b) PDO[4] and

[3]By starting in 2000, we do not have to control for the change in the exchange rate (UK excluded).

[4]Protected Designation of Origin (PDO): means the name of a regio, a specific place or, in exceptional cases, a country used to describe a wine that complies with the following requirements. (i) its quality and characteristics are essentially or exclusively due to a particular geographical environment with its inherent natural and human factors; (ii) the grapes from which it is produced come exclusively from this geographical area; (iii) its production takes place in