Padua 2017 Abstract Submission

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**Keywords**
Wine sector; Exports; Performance; Profitability; Productivity; Efficiency; Douro region.

**Research Question**
Study the relation between export intensity and economic performance of wineries.

**Methods**
Parametric and non-parametric tests are applied to evaluate the economic performance of Douro region wineries, being also tested the association between exports intensity and performance indicators.

**Results**
Firm-specific characteristics significantly impact export behaviour. Differences on performance are witnessed.

**Abstract**
The Demarcated Douro Region (DDR), created in 1756, was the third worldwide to be created, but the first to be object of a strong regulation. Historically the main production of the DDR has been the Port wine, with more than two centuries being sold in external markets. During the last decade the efforts to compete with a new product – the Appellation d’Origine Contrôlée (AOC) Douro Wine - in international markets has generated a significant growth both in value and volume. Thus, the market structure of the Douro wine industry is characterized by product differentiation, with different categories of Port wine and AOC Douro wine, and a monopolistic competitive environment, with the Port wine being offered by a small number of firms and the AOC Douro wine being offered by many micro and small firms. In terms of supply, namely the Port wine, the industry is strongly regulated. Growing competitiveness and the globalization of wine industry have given rise to a challenging environment where economic performance matters both at a firm/sector and at a region/country level. In an early paper on competitiveness measurements Buckley et al. (1988) quoting the 'The Aldington Report' traces firm competitiveness as to be a synonymous of the firm’s long-run performance. The evaluation of performance done by frontiers approaches, namely through Data Envelopment Analysis (DEA), and simultaneous modelling applied to firm-level competitiveness seems to be appropriate analytical tool to evaluate the performance construct (Hao Ma, 2000). There are several authors that have made the effort to evaluate the performance, given through firm productive (technical and economic) efficiency analysis, in the wine industry (Townsend et al., 1998; Bonfiglio, 2006; Barros and Santos, 2007; Arandia and Aldanondo, 2007; Fernandez and Morala, 2009; Fekete et al., 2009; Liu and Lv, 2010; Sellers-Rubio, 2010; Brandano et al., 2012; Vidal et al, 2013; Aparicio et al, 2013; Fleming et al., 2014; Sellers and Mas, 2015). In what concerns a performance evaluation of the Portuguese wine sector firms there are few studies (Rebelo, 1993; Rebelo and Caldas, 2015; Barros and Santos, 2007; Henriques et al. 2009; Mourão and Martinho, 2016).
Comparing the efficiency of wine cooperatives and private firms in the Portuguese wine sector Barros and Santos (2007) found that cooperatives, on average, are more efficient than their private counterparts. Rebelo (1993) and Rebelo and Caldas (2015) studied the efficiency of only the wine cooperatives in the Douro region. Henriques et al. (2009) using stochastic production functions applied to Portuguese grape farms found a positive influence of size on efficiency and potential improvement of technical efficiency. Mourão and Martinho (2016) identify the most important determinants of the value of Portuguese wine exports and the efficiency levels for each destination country and found that there is substantial potential to increase Portuguese wine exports.

The literature has extensively analysed the differences between exporting and non-exporting firms, showing, that the former are more productive than the latter. Furthermore, Melitz (2003) argues that more efficient firms are more likely to enter into foreign markets. Due to fixed and variable costs of exporting, only the most productive firms are profitable enough to afford paying the additional costs needed to break into foreign markets. In fact, studies have shown that competitiveness and performance are multidimensional constructs that continues to deserve additional studies, both theoretical and empirical. The DDR for its history, being also a multiproduct wine region that well fits the traditional terroir model (Rebelo and Caldas, 2015), is a good living laboratory to study issues related with firms´ performance. Thus the goal of this study is to examine the performance of the wine producing firms of the DDR and additionally analyse the relationship between export intensity and firm-specific characteristics. The results of this research will be very useful as guidelines for policy makers to design and implement strategies to promote the economic efficiency of the units operating in the wine sector in this region.

To accomplish the aim of the study - export intensity and economic performance of Douro region wineries - we focus on the privately owned firms that sell Port wine and AOC Douro wine. The sample used in this paper is taken from Douro wineries included in the 1102 NACE-2009 code (Production of still and liquorous wines) and the source to obtain the variables employed is the Financial and Economic entrepreneurial Data Base provided by Informa Dun & Bradstreet (D&B).

The methodology employed to achieve the aim of the paper is divided into three stages. In the first stage, the traditional financial index such as ROA (returns on assets), ROE (returns on equity), and ROI (returns on investment) are used as indicators of profitability. As indicator of productivity are used ratios, as like as sales per employee and added value per employee. In the second stage, to estimate economic, technical and scale efficiency, the non-parametric technique DEA is used. In the third stage, to evaluate how export intensity (the ratio of exports to sales) is related to firm profitability, productivity and productive efficiency a regression model is used. The dependent variable is a measure of export intensity and the explanatory variables are the indicators of performance (profitability, productivity and productive efficiency) computed in the previous stages. Other variables, such as the size and the age of wineries, are used as control variables.

Having defined the aim of the research, the structure of the paper is as follows: a literature review on the internationalisation and economic performance, emphasizing the wine industry; description of the used sample, the estimation of profitability, productivity and efficiency measures of performance; the econometric approach used to analyse the association between export intensity and performance; the analysis of the robustness of the results and its subsequent statistical and economic interpretation of the results; conclusions and policy implications.

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EXPORT INTENSITY AND ECONOMIC PERFORMANCE OF WINERIES: EVIDENCE FROM THE DOURO REGION

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References


