Title
THE DETERMINANTS OF PORTO WINE EXPORTS: RECENT EVOLUTION

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Conference Presentation

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Keywords
Porto wine, exports, competitiveness, gravity model, panel data.

Research Question
To analyze the recent export performance of Porto wine and to research the main determinants of its exports.

Methods
The gravity model approach is applied to a panel data econometric model covering the 2006-2014 period and the top 20 destination countries.

Results
The signal and significance of the estimated parameters show that the explanatory variables have different impact on the export performance, according the structure by quality of Porto wine.

Abstract
In the 21st century the wine industry continues to be subject to an intensive process of globalization, expressed by an impressive growth of international trade, a fact that poses both challenges and opportunities to the players of the industry. The market structure of wine industry is characterized of product differentiation, operating the firms in a monopolistically competitive environment.

The fortified Porto, named after the city of Porto, from where it was traditionally shipped, constitutes a typical case of a globalized product sold in the world market for more than 250 years, with almost 85% of its production being exported to more than one hundred of countries. In the liquorous wine international market (Porto, Sherry, Marsala, Madeira Samos), Porto wine assumes a dominant position, representing 84% of the international trade
Porto is a wine with different qualities, that can be divided into the following categories: (i) Ruby style, including, in ascending order of quality, the ruby, reserve, late bottled vintage (LBV), and vintage; (ii) Tawny style, in descending order of quality, includes the tawny, reserve, tawny with an indication of age (10, 20, 30 and 40 or more years old), and harvest (colheita); (iii) White Porto, which varies in style according to whether it is aged for shorter or longer period of time and different degrees of sweetness according the manner by which it is made; (iv) Rosé, which is a pink-colored wine obtained by light maceration of red grapes, with no oxidation during preservation. Based on the increasing level of quality and in the prices, it is possible to form four categories of Porto wine: Standard, High standard, Vintage and Aged.

The trade of Porto wine is characterized by temporal cycles, showing recent data that the exports are witnessing a negative phase, expressed by some decreasing of the exports both in volume and value. Since the higher quality of Porto wine attracts higher prices, an appropriate strategy to compensate for recent declines of exports could be to foster the sales in international markets of older and special categories of Porto wine.

This picture signals the relevance of to investigating the determinants of the exports of Porto wine, whose topic is the main goal of the present paper. The implied research results could be translated into useful guidelines for policymakers to design and implement export strategies for companies as well as to establish funding supports and programs for enterprises based on encouraging cooperation between organizations, in order to improve firm competitiveness.

To achieve this goal, a panel econometric model is applied to a gravity equation, considering the 2006-2014 period and the 20 main countries of exports (France, United Kingdom, Netherlands, Belgium, United States of America, Canada, Germany, Denmark, Spain, Brazil, Switzerland, Italy, Russia, Poland, Sweden, Japan, Angola, Ireland, Norway, Emirates, Luxembourg, Hong-Kong). The gravity model is employed in the study of the determinants of international trade and assumes that bilateral trade flows depend positively on the economic size of the countries (normally measured by their gross domestic product (GDP) or income) and negatively on the distance between them. In addition to the basic variables (income and distance), the gravity model can incorporate other variables which affect, positively or negatively, the trade, leading to the “expanded gravity model”.

In our gravity model, the dependent variable is the export of Porto Wine, in volume and value, for each of the four categories of quality: Standard (tawny + ruby + white + rosé); High standard (late bottled vintage + reserves + crusted); Vintage; and Aged (10, 20, 30 or more than 40 years old and year of harvest). The explanatory variables are: GDP, GDP per capita, population aged 18 years or over, real exchange rate, bilateral distance, specific and/or ad-valorem tariffs, wine and alcohol consumption per capita, Portuguese emigrants, household final consumption expenditure, common language, land border, common currency and colonial linkages.

The data sources are: Instituto de Vinho do Porto e Douro (IVDP) to the dependent variable; and for the explanatory variables the World Bank, International Financial Statistics of International Monetary Fund, COMEXT (Eurostat), International Organization of Wine, Centre d´Études Prospectives et d´Informations International (CEPII) data base, and others.

Besides the introduction and conclusions the paper includes: a literature review on demand side determinants of exports, emphasizing the alcohol and the wine industries; material and methods (data collection, methods, results and discussion). In this section we describe the building of the data set, the equation to be estimated, the econometric approach used (panel data), the analysis of the robustness of the results (statistical tests) and the subsequent statistical and economic interpretation of the results.

The contribution of this paper is twofold: 1) to analyze the export performance of Porto wine, making a comparison with the export performance of other liquorous wines, covering both the period prior to the global crisis of 2008 and the period post-crisis; 2) to bring to light new evidence about the determinants of Porto wine exports using the gravity model approach, and to analyze the role played by product quality in this process.