**Bordeaux 2016 Abstract Submission**

**Title**
Income and Crowding Effects on the World Market for French Wines

**I want to submit an abstract for:**
Conference Presentation

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**Keywords**
Income effect, Competition effect, Generalized model of ideal variety, Gravity equation

**Research Question**
What about competition and income effect for french wine exporters at the world level ?

**Methods**
Empirical, applied economy based on theoretical insight.

**Results**
A 1% increases in GDP per-capita (income effect) generated an increase in price of 1.13% between 2001 and 2011. In contrast a 1% increase in market size (competition effect) reduced.

**Abstract**
Short abstract

The price of wine has grown at a fast rate between 2001 and 2010 and now stagnates. The period of growth may be explained by the rise in the demand from emerging markets while the stagnation may come from the entry of new varieties causing a crowding effect on the wine market. We estimate the generalized model of ideal variety proposed by Hummels and Lugoskyy (2009) that combines these two elements and we find partial support for this explanation for french exporters at the world level. A 1% increases in GDP per-capita (income effect)
generated an increase in price of 1.13% between 2001 and 2011. In contrast a 1% increase in market size (competition effect) reduced price by 1.10% over the same period. This paper also analyses these effects by considering exports of wine according to mode of transport and indirectly evaluates economies of scale in transport of wine exported by plane, boat and road.

Long abstract

The price of wine has soared in recent years but since 2010 competition seems stronger. The index of the Fine Wine 1000, which represents 80% of the world market activity by value, multiplied by 2.5 between 2001 and 2010 and then stabilized at around 4 billion dollars (Millar, 2014). To explain these stylized facts, the current paper pursue two goals, the former is to use insight from the literature of international trade to analyse this market, the latter is to use the wine market to test competing models of international economics. More precisely, we focus our attention on the Generalized Model of Ideal Variety (hereafter GMIV), proposed by Hummels and Lugovskyy (2009) and on the standard model of monopolistic competition with love for varieties of Krugman (1980). The GMIV model seems particularly adequate to analyse the wine sector since this model can both explained the period of growth and the recent stagnation. Indeed, by assuming that the compensation cost of not consuming the ideal variety depends on the level of consumption of this variety, Hummels and Lugovskyy (2009) propose a model in which the optimal choice of consumption is closer to the ideal when expenditures increase. As a result, when individuals become richer, the demand becomes more rigid and price increases. However, when incomes increase, the market size stimulates the entry of firms and fosters competition. Firms reduce markups and prices. We shows that these two effects matter to explain prices in the wine sector. In contrast, the model of monopolistic competition with love of varieties based on CES preferences does not present pro-competitive effects. Hummels and Lugovskyy (2009) shows that their lancasterian model has a better fit to the data than this standard model. Here, we applied their methodology to the wine sector at the level of firms. We confirm Hummels’ and Lugovskyy’s (2009) conclusion, and we also show that a standard gravity equation performs poorly for the wine sector. However, we find that a better specification of trade costs helps to improve this performance. Mimicking pro-competitive effects, it is possible that shipping prices react to change in market size due to economies (or dis-economies) of scale in transportation. With endogeneous trade costs, an increase in incomes per-capital has a stronger impact on trade of high quality wines which are exchanged under modes of transport with high economies of scale. We quantify to which degree wines exported by ship and road benefit from a smaller income effect than wine exported by air.

To our knowledge, exportations by mode of transportation have never been analysed in wine economics. In contrast regarding the market size and the market crowding effects, many elements have been emphasized in the literature. On the one hand, Chevet, Lecocq and Visser (2011) point out that “the sky-high price paid for the 2009 vintage can in large part be attributed to increased wine demand from Asia (China in particular)”. But such a claim is not investigated in details in Chevet et al. (2011) whose contribution is on the impact of weather conditions on historical price data. On the other hand, the Lancasterian idea has been used implicitly in many applications using the hedonist approach (Griliches, 1961; Rosen, 1974) based on wine characteristics. For instance to quote just a few contributions (from a wide-based literature), Nerlove (1995) discusses the standard hedonic price equation to study preferences of Swedish wine consumers, Combris, Lecocq and Viser (1997) apply this method to Bordeaux wines in order to analyze the impact of sensory characteristics (provided by a jury under blind tasting conditions) on prices, and Roma, Di Martino and Perrone (2013) use this method to explain the price of Sicilian wines.

In comparison to this literature that distinguishes the importance of various characteristics mainly from the supply side, here we aim to analyze demand side effects. We find that the own-price elasticity of demand is influenced by GDP per capita and importer GDP contrasting with standard results based on monopolistic competition with Constant Elasticity of Substitution (CES) preferences. The market size, approximated by importer GDP, has a negative effect on the price differential as well as the share of exportations revealing a competition effect on external markets for French producers.