Padua 2017 Abstract Submission

Title
CAUSES OF WORLD TRADE GROWTH IN WINE, 1850-1938

I want to submit an abstract for:
Conference Presentation

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Keywords
Wine trade, Wine economic history, gravity equation,

Research Question
To study the main determinants of the world wine trade between 1850 and 1938.

Methods
Gravity model based on bilateral trade flows from 1850 to 1938 (75% of world wine trade: exports from Algeria, France, Italy and Spain)

Results
Pending

Abstract
The first globalization integrated the international good and factor markets from about the middle of the nineteenth century to its collapse as a consequence of the crisis of 1929. Agricultural and food products played a key role in the first wave of globalization, as they represented around 50% of world trade during this period.
In this context we are interested in analyzing how the international wine market was built, based on the commercial flows that took place. In this international market France played a decisive role as it was the main exporter during most of those years, and also became the first importer. This country ended up specializing in the export of high quality wine, while importing ordinary wine. The relevant exporters of low-quality wine were Spain and Italy, and later Algeria.
There were two main forces driving the wine trade during the second half of the nineteenth century: first, for ordinary table wine, the French demand that followed the phylloxera outbreak; second, for high quality wine, the demand from countries with the highest income levels, such as Great Britain and the United States where where demand was generated by the wealthy elite. As Loubere stated, wine was a privileged drink of the privileged class and... remained a kind of ideal beverage, a sign of social standing and wealth, or at least of pretension to high status... The general increase of wealth and well being that began in the 1850s amply proved this, for the consumption of wine went up.
France was the main beneficiary of the expansion in this elite demand, doubling the value of its exports of table wine between 1855 and 1890. However, it was precisely this "privileged" pattern of consumption, and the preference of the working and medium classes for beer and spirits, that represented the main obstacles to further

growth in the wine trade. During the first third of the twentieth century, when demand for wine in other markets stagnated, French demand offered the greatest opportunity to generate an increas in world wine exports. Thus, while between 1909-13 and 1928-32 the wine trade grew by around 20 percent and French wine imports grew by 65 percent, the international wine trade would, without France, have dropped by around 13 percent

The economic crash of 1929 caused the international wine trade to fall: by 5.6 percent between 1928-32 and 1934-38. During the 1930s, as Loubere indicated, "there was simply too much wine, good and bad, for buyers who lost their jobs or who feared losing them." The depression hit even the wealthy elites who traditionally guaranteed a market for quality wines and increased protectionism did not make things any easier. In the early 1930s, bumper harvests, both in large-scale producers such as France, and in countries outside Europe that had long been expanding their vineyards accentuated the crisis for wine growers and distributors—although the decline in the wine trade would have been greater had it not been for continued strong demand from the French market.

The result was an over-saturated international wine market. Accordingly, during the first third of the twentieth century, the wine output of the majority of wine producers was directed towards their own domestic markets. Whereas before the 1929 Crash the world's seven biggest wine producers exported between 10 percent and 15 percent of their total yield, for all except Algeria whose wine industry remained dependent on the French market, those percentages diminished by more than half between 1929 and 1938.

Our objective is, consequently, to study the main determinants of the world wine trade between 1850 and 1938. To do this and, following Feenstra et al. (1998 and 2001) and Schumacher and Siliverstovs (2006), we use a gravity equation à la Bergstrand (1989) that includes "multilateral resistance" as suggested by Anderson and van Wincoop (2004), to examine the principal causes underlying the evolution and changes in the directions of World wine exports.

Applying logarithms, the functional form of the models is:

$$\ln X_{ijt} = \beta_1 + \beta_2 \ln (Y_{it}) + \beta_3 \ln (Y_{jt}) + \beta_4 \ln (GDP_{it}) + \beta_5 \ln (GDP_{jt}) +$$
$$+ \beta_6 \ln FR_{ij} + \beta_7 Border_{ij} + \beta_8 Lang_{ij} +$$
$$+ \delta_{ijt} + \varepsilon_t$$

Where X_{ijt} represents wine exports flows, by volume, from the exporter country i to the importer country j in year t, in 1913 U.S.A. dollars, Y_{it}, Y_{jt} are the wine production of the exporting country and the importing country (Anderson and Pinilla, 2017) ; $Ypcp_{it}$, $Ypcp_{jt}$ are the real GDP of both the exporting country and the importing country, in year t, in 1990 Geary-Khamis US dollars (Maddison, 2001); FR_{ij} is the transport costs between the exporting country and the country of destination; $Border_{ij}$ is a dummy variable which takes the value of 1 if the exporting and importing country have a common border and 0 otherwise; $Lang_{ij}$ is a dummy variable which takes the value of 1 if the countries share the same language and 0 otherwise. We will also add some dummy variables to control events that could affect exports as the phylloxera plague, World War I or the depression of the 30s. Lastly, in line with the recent work by Anderson and van Wincoop (2003), the equation includes "multilateral (price) resistance terms", which are proxied by dummy variables. This article, which has been highly influential in recent studies, demonstrates that the omission of price indices leads to an erroneous specification of the empirical model, which may bias the results. We use country-pair fixed effects (δ_{ijt}) to account for the multilateral price terms (rather than a custom nonlinear least squares program), following the alternative proposed by Feenstra (2004). These variables reflect the effect of all the singularities of the exporting and importing nations that might affect trade between two countries and are not captured by the remaining variables specified in the empirical model. Finally, the model includes the error term (ε_t) which is assumed to be log-normally distributed.

World wine export flows were reconstructed annually in volume terms between 1850 and 1938 for Algeria, France, Italy and Spain from national foreign trade statistics. The quantities of wine exported each year to each destination in hectoliters, have been multiplied by their respective price (unit value of exports) in 1913. The wine exported by these countries accounted for more than 75% of world exports in the period analyzed.