

## Trade, Taxes, and Terroir: The Rise of the French Regulatory State During the Third Republic

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The French have an extensive system of food regulations that favors small, local, “traditional” producers. There is even a word for this Gallic preference for taking local geography seriously, *terroir*. We argue that the modern French concept of *terroir*, along with many of the anti-competitive regulations that emerged to support it at the beginning of the twentieth century, can be partly explained by the extensive system of high *internal* taxes on the trade in wine during the nineteenth century. These taxes, inherited from the Old Regime, were collected by both local and national governments and varied substantially across French departments. Our claim is that in many regions during the nineteenth century these local taxes were high enough to induce Alchian-Allen effects which biased consumption and production of wine towards the relatively expensive *vins ordinaires* sold by small local producers. This prevented cheaper, industrially produced, wine from the South from competing with local producers. We test this hypothesis using quasi-experimental variation in local taxes generated by a national policy change in 1901 which imposed a ceiling on local tax rates. We show that when wine taxes were forcibly lowered by the national government in 1901, more producers went out of business in regions that lowered their taxes more. We also show that the amount of wine transacted on formal markets, as opposed to being consumed “on the farm”, increased in regions which lowered their taxes more. Finally, we show that the net effect of lowering local wine taxes was an increase in the efficiency of wine production, as measured by output per hectare.

We focus on two types of local wine taxes. *Octrois* taxes were collected by cities since the Hundred Years War on goods intended for consumption within their boundaries. By the end of the nineteenth century each city (technically, *commune*) was allowed to set *octroi* rates to meet its financial needs within broad guidelines set by the central government. They were also required by the national government to be collected on quantity rather than price. The second type of tax was actually a group of taxes on the circulation and sale of wine whose rates varied

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by department, but whose revenues were destined for the national government. These taxes were also collected based on a quantity basis. Between 1896 and 1900, the period before local taxes were forcibly lowered, their average rate across France was about 8 Francs per hectoliter of wine sold. Between 1901 and 1905, after the tax rate decrease, their combined average rate was 4 Francs per hectoliter.

The *octrois* and other indirect taxes potentially generated significant distortions in the consumption and production of wine. For example, since they were unit taxes, they altered the relative price of wine in favor of higher quality. This Alchian-Allen effect could be quite severe. For example, during the 1896-1900 period the average price of a hectoliter of wine across all of France was about 24 Francs. In the South of France, where more cheap wine was produced using industrial techniques, the average price of wine during this period was about 18 Francs. This implies a relative price of imported to locally produced wine of about 0.74. After the tax rate decrease, the average price of wine in France was about 18 Francs and Southern wine was about 12 Francs, which implies a decline in the relative price of cheap imported wine of about 8%. This decline increases to about 20% if we exclude 1902 and 1903 from our calculations which were bad production years in the South.

One of the main difficulties in testing whether high internal taxes generated protection for local producers of wine is that there could be endogeneity between the tax rate chosen by the locality and the factor endowments, or, industrial organization of wine production in that region. For example, it is possible that the major wine blight, known as the phylloxera, which struck the wine producing regions of France after 1865 could have induced policy makers to both lower taxes (as they did temporarily) and driven wine farmers out of business (as it did, temporarily). This would create a negative correlation between the number of wine producers and tax rates, however, it would say nothing about the causal effect of taxes on entry and exit of wine producers. We attempt to minimize endogeneity by taking advantage of the potentially exogenous variation in the timing of the decrease in local tax rates generated by the 1901 policy experiment to test our hypothesis that high internal taxes in nineteenth century France were protectionist. We create a department level panel data set on wine and hard alcohol tax rates, wine consumption, number of wine farmers (*recoltants*), the value of wine production, the proportion of wine consumed on farms (*en franchise*) as opposed to purchased on the markets, and output per hectare between 1896 and 1905. Using a differences-in-differences framework

we show that when local taxes decreased after 1901 more wine was traded on markets and the number of wine farmers in previously high tax regions decreased. Furthermore, consistent with the Alchian-Allen hypothesis, we show that these effects were larger in departments that produced higher priced wine during the 1896-1900 period. We also show that after the tax decrease output per hectare increased more in departments producing cheap wine than in those producing expensive wine, but that on average, output per hectare increased across all of France.

In addition to showing that French tax policy was protectionist during the nineteenth century, our study helps explain the origin of modern French “progressive” wine regulation. Historians have long referred to the period between 1901 and 1906 as the *mévente*, or “bad market”, for wine producers in France. Various explanations have been offered for this period of sustained low prices which resonate with debates about the rise of regulation in the United States during the Progressive Era (*e.g.* Kim and Law, 2005; Glaeser and Shleifer, 2003), . In particular, the most common explanation is that an increase in the production of adulterated wine led to the price decrease. Adulteration was also the most prominent complaint made by wine producers who protested (sometimes violently, as in the Midi) in favor of increased regulation after 1901. We argue that as specialization and trade in the wine market increased after local taxes were lowered in 1901, political activism by wine producers, many of whom had lost their livelihoods, resulted in the promulgation of new laws and regulations which protected them from competition. Given the significant variation in tax rates across French departments and the plausibly exogenous timing of the tax rate ceilings, our study allows us to identify the causal role of increased specialization and trade, as opposed to product adulteration, in generating the political actions which resulted in wine regulation in France. Furthermore, we speculate that the relatively discontinuous and large decrease in local tax rates helps explain why the political response to increased specialization and trade by small wine producers, and eventually the government, was so extreme.