Trade, Taxes, and Terroir

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This Version: June, 2011, ISNIE

May 15, 2007: Day Before Sarkozy Inaugurated

Abu Hafs al-Masri Brigades Warning

Next Day… “Comite d'Action Regionale Viticole” (CRAV) Threat Video, May 16, 2007

June

26th

22:47 GMT +00:00

Days of wine and riots

Posted by: Economist.com

Categories: France

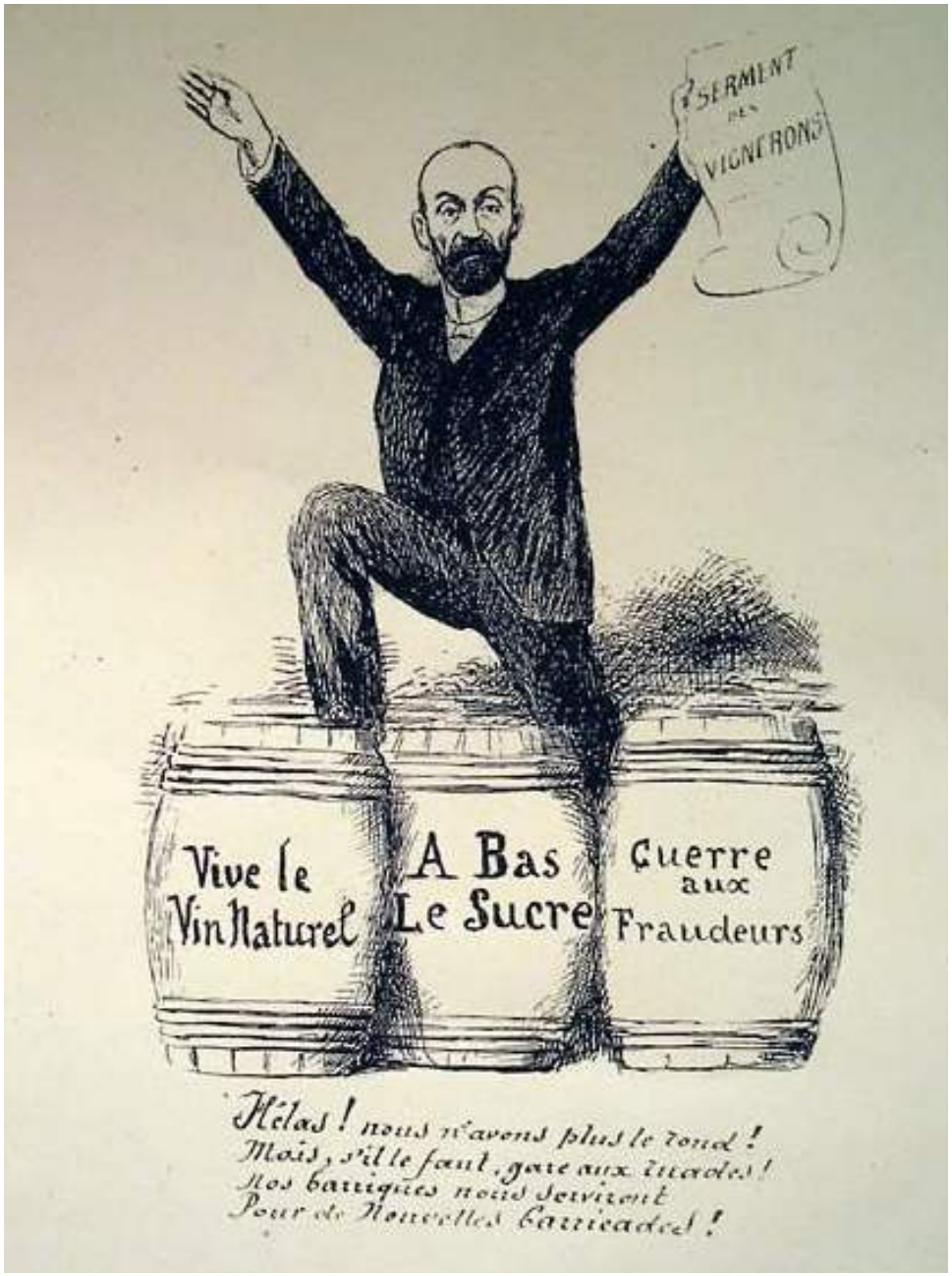
SCENES of protesting truck drivers and fishermen fail to surprise any more. But winemakers on the rampage?

Press reports say winemakers in southern France have burned police cars, vandalised supermarkets and broken courthouse windows in a rage over higher fuel costs and falling prices for their wine. In one instance, they are alleged to have tried setting fire to a police car with officers still inside. The vintners of Languedoc-Roussillon and other parts of France are seeking more government aid to ease their plight.

> *Philippe Vergnès, president of a wine growers' syndicate in the Aude region in south-central France, said that 98 percent of 15,000 vineyards there had been "crippled financially." He urged the government to come up with a plan to help the region.*

1907 in the South of France, “Vigneron Riots”

Reasons for the 1907 riots similar to those of 2007…



Substitution of National Laws for Local Laws

1. Both the 2007 and 1907 riots were due to impact of market integration on “traditional” producers.

2. But why did the riots occur in opening years of 20th century and why were the demonstrations so virulent?

3. Autarchic Local taxes prevented market integration during nineteenth century. National government forcefully lowered these taxes in 1901 across the country. Allows us to identify the extent to which local tax policy impeded internal trade.

4. In Long-Run, central state became conduit for national regulation.

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Did High Internal Taxes Protect Small, Local, Producers of Relatively Expensive Wine?

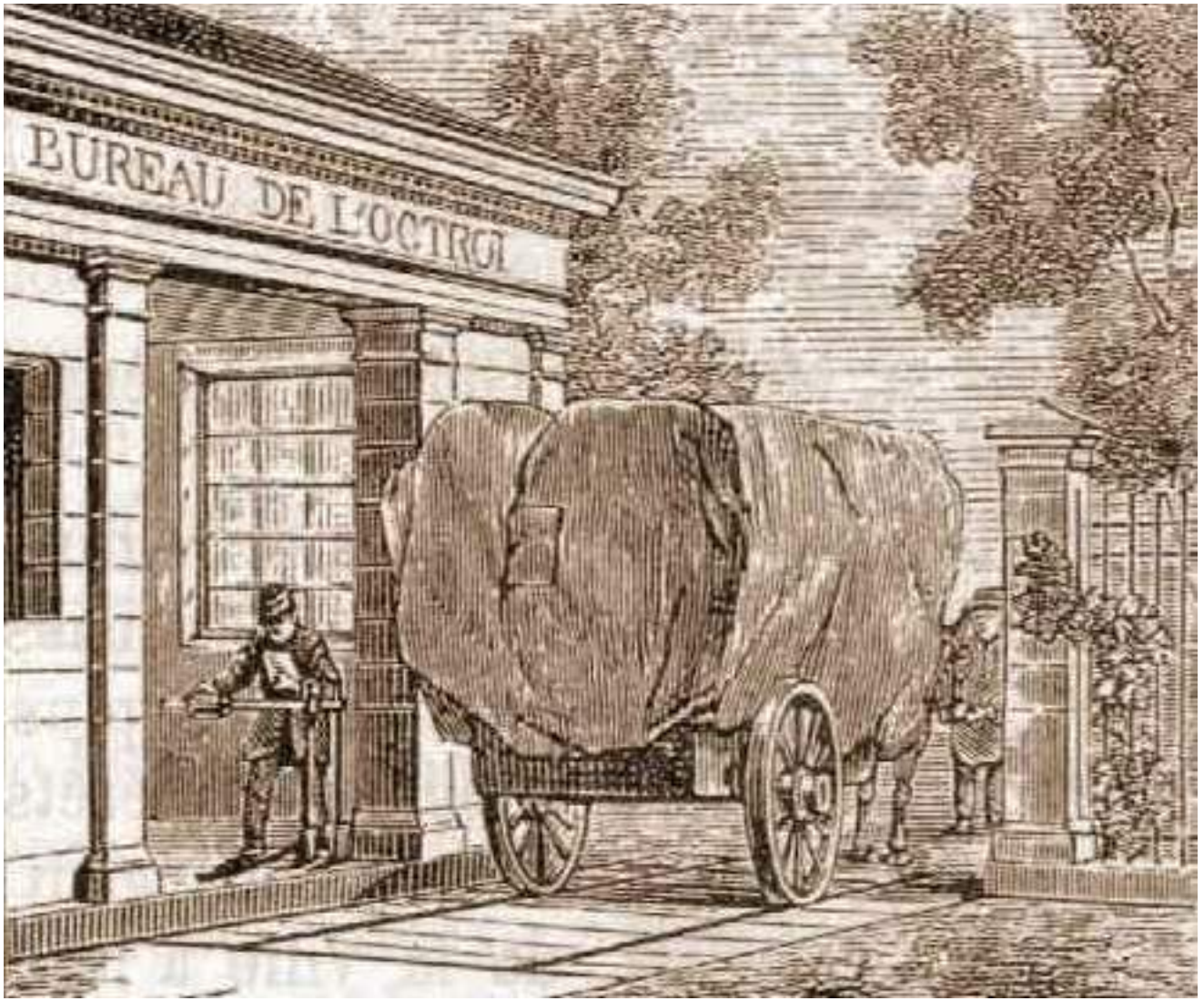


Figure 4: Departmental Wine Tax Rate and Wine Consumption, 1896–1905

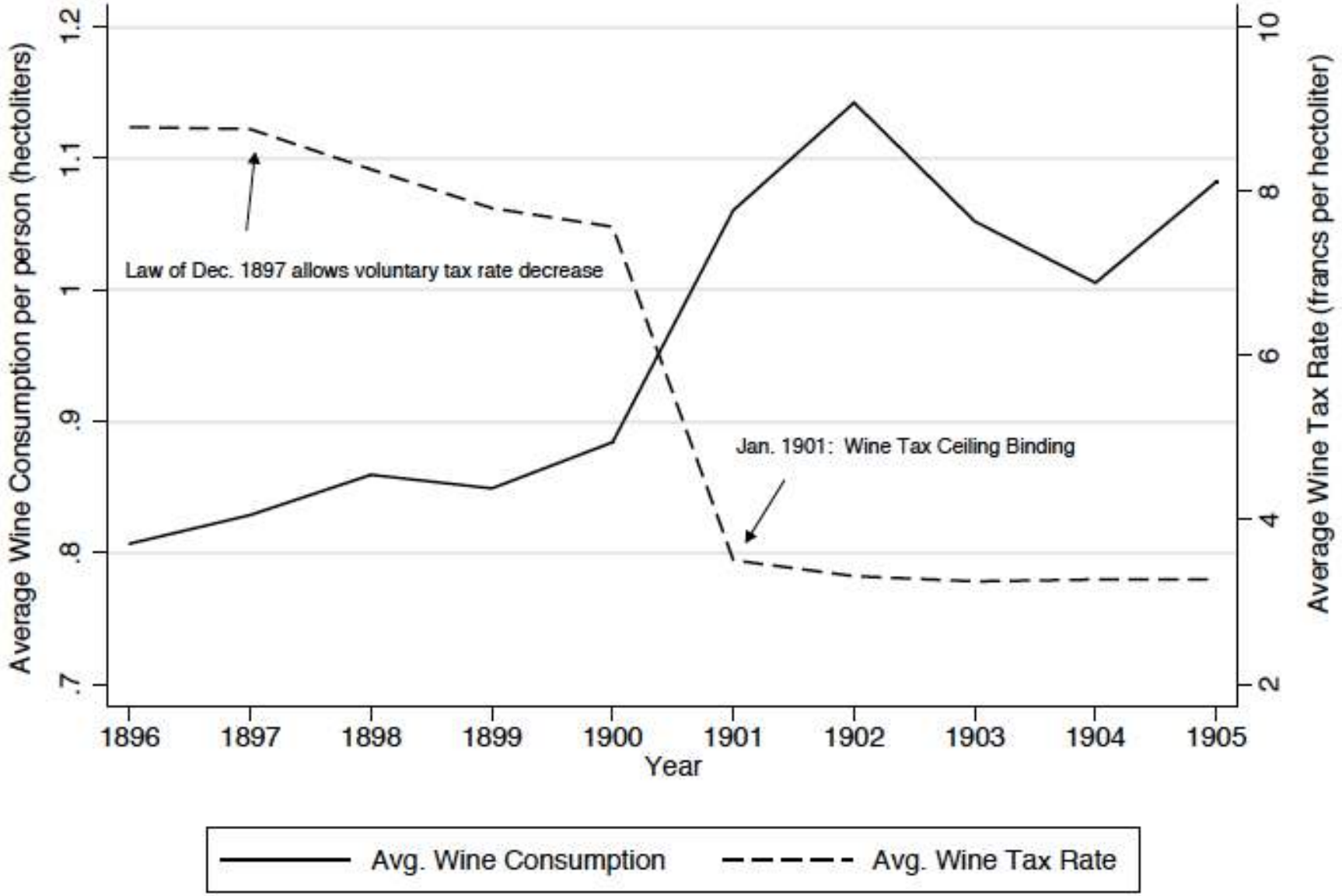


Figure 3a: Wine Tax Rate, 1896-1900

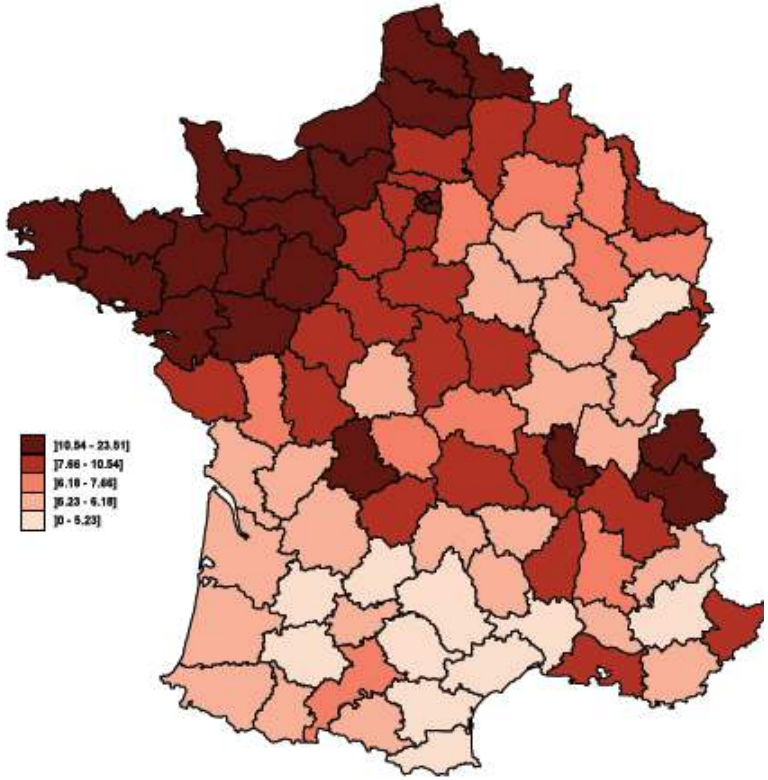


Figure 3b: Wine Tax Rate 1901-1905

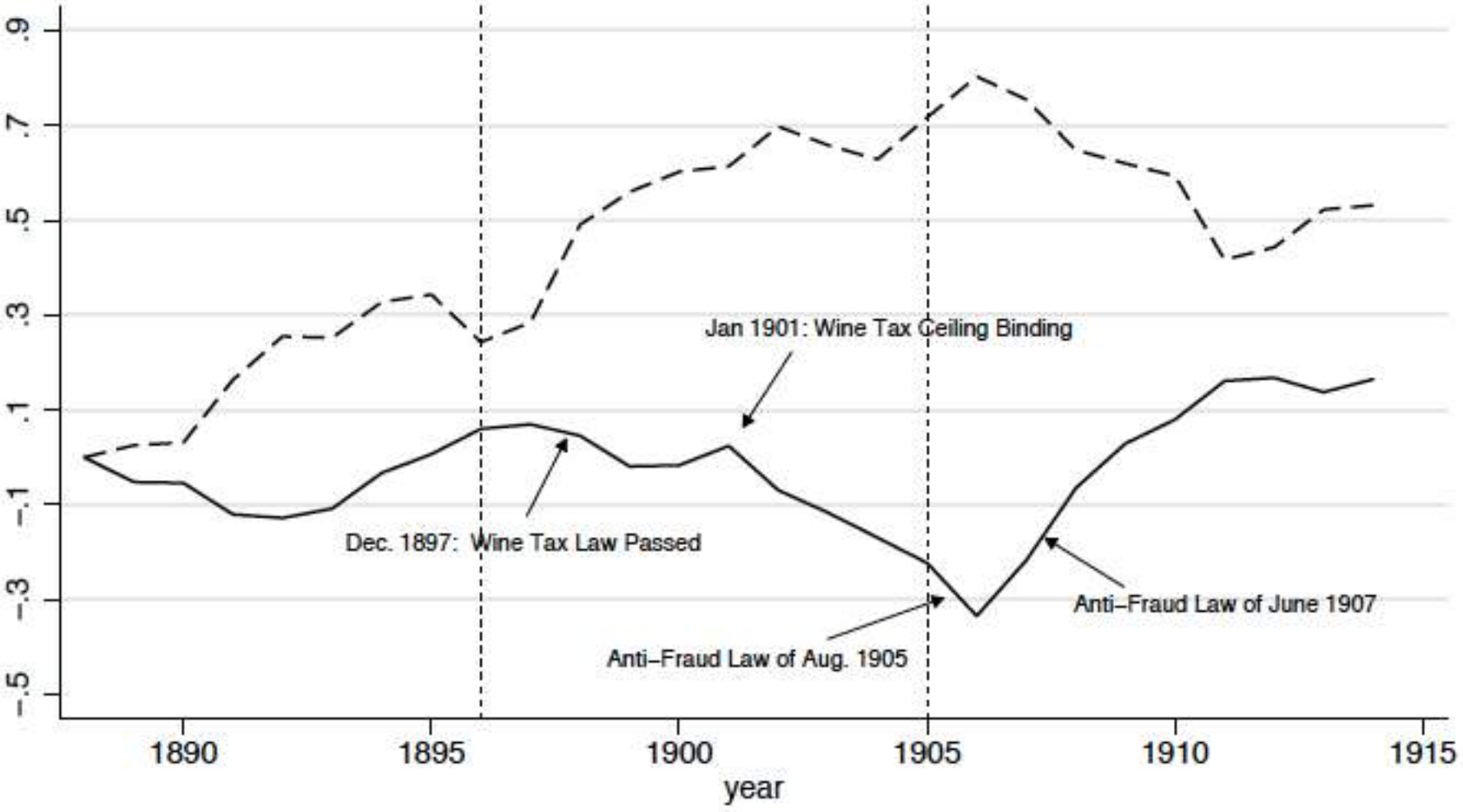
The Internal Tax System was inherited from the early Renaissance. By the 19th Century the taxes we study are:

1. Collected and set at the village/city level
2. Unit taxes (assesed on quantity)
3. Alcohol taxes are the most important component
4. After 1870 illegal to discriminate based on point of origin, so they are excises, not tariffs

How Can Excises Favor Producers of Relatively Expensive Wine?

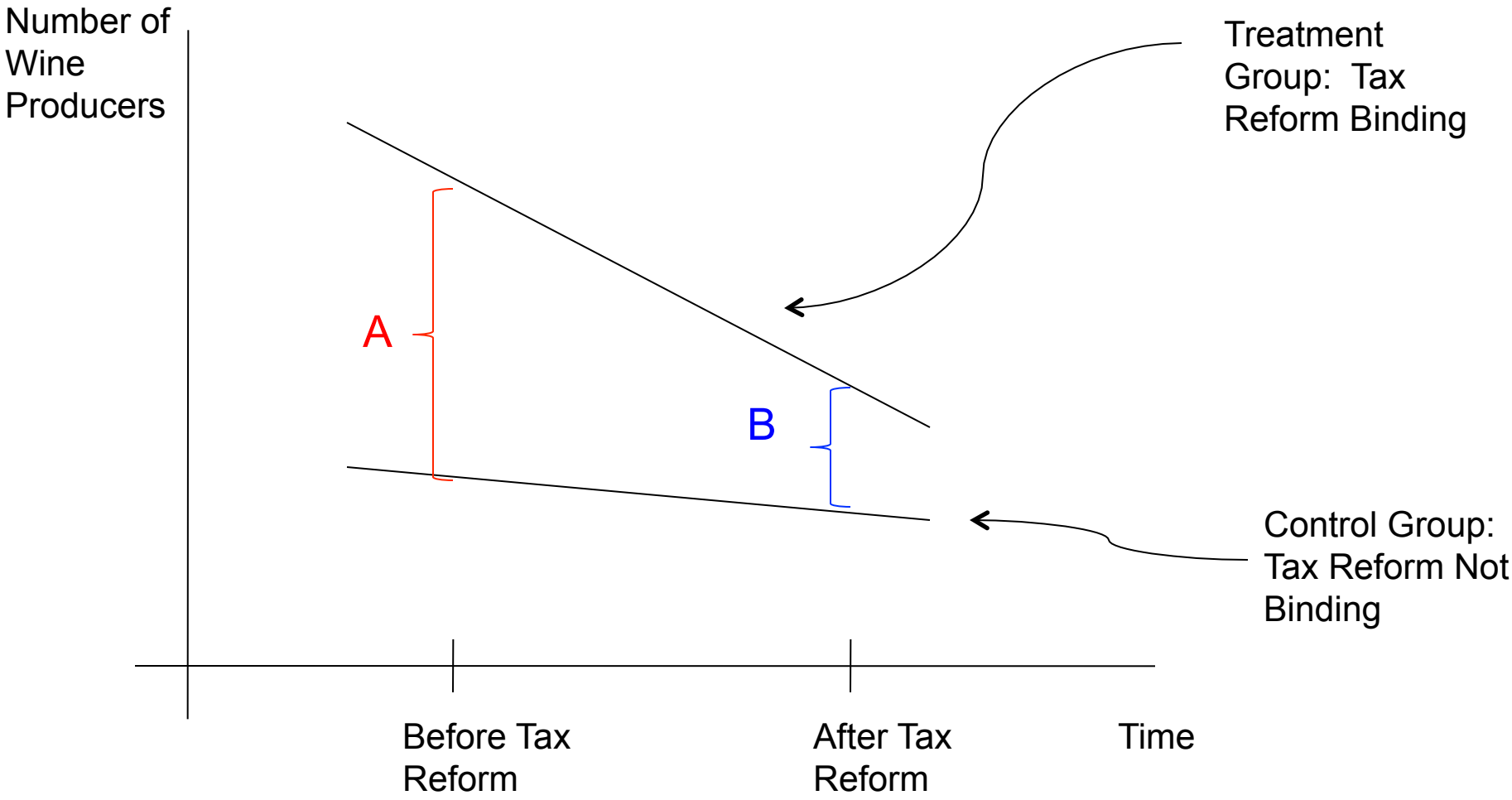
Alchian-Allen Effects

Figure 5: Production and the Relative Price of Midi Wine, 1888–1914



Notes: Data from various years of the Annuaire Statistique. Five year moving averages. Scale of wine production is log(hectoliters). Midi departments are Herault, Pyrenees Orientales, Gard, and Aude.

Identification Strategy: Diff-In-Diff



We are interested in (B – A)

Did The Number of Wine Producers Decrease After Taxes Were Lowered?

$$\Delta y_i = \beta + \delta \Delta \tau_i + \Delta X_i' \Lambda + \Delta \varepsilon_i$$

Change in number of producers in Department i

Change in inflation adjusted tax rate in Dept. i

Controls include railway mileage and production of wheat

δ = 0.18 (std. error = 0.06), n = 76

A one std. dev. decrease in tax rate reduces number of wine producers by about 0.25 of a std. dev.

Table 3: Did High Internal Taxes Protect Local Producers?

Dependent Variable = Difference in Number of Wine Producers (DiffRecoltants)

	(1) OLS	(2) OLS	(3) OLS	(4) LIML	(5) LIML	(6) OLS
DiffWineTaxRate	0.2181***	0.1804***	0.1428**	0.2883**	0.2668**	
	(0.0616)	(0.0595)	(0.0564)	(0.1200)	(0.1261)	
Dichotomous Tax Rate Treatment (=1 if change < median)						-0.1255**
						(0.0587)
Controls		x	x		x	x
Restricted Sample			x	x	x	x
Observations	76	76	69	69	69	69
R-Sq	0.131	0.181	0.136			0.132
First Stage F-stat				8.09	7.29	
Shea Partial R-sq				0.2858	0.2772	
Hansen-J (p-value)				0.7771	0.7409	
Hausman test (p-value)				0.1621	0.1892	

Did The Amount of "On-Farm" Consumption Decrease After Taxes Were Lowered?

$$\Delta y_i = \beta + \delta \Delta \tau_i + \Delta X_i' \Lambda + \Delta \varepsilon_i$$

Change in amount of production consumed "on farm"

Change in inflation adjusted tax rate in Dept. i

Controls include railway mileage and production of wheat

δ = 0.35 (std. error = 0.14), n = 76

A one std. dev. decrease in tax rate reduces amount of "on-farm" consumption by about 0.33 of a std. dev.

Table 2: Did High Internal Taxes Impede Market Development?

Dependent Variable = Difference in Proportion of Wine Consumed Off Market (DiffPropEnFranchise)

	(1) OLS	(2) OLS	(3) OLS	(4) LIML	(5) LIML	(6) OLS
DiffWineTaxRate	0.4231*** (0.1299)	0.3497** (0.1372)	0.3534*** (0.1142)	0.9012*** (0.2854)	0.6744*** (0.2567)	
Dichotomous Tax Rate Treatment (=1 if change < mean)						-0.3238*** (0.1169)
Controls		x	x		x	x
Restricted Sample			x	x	x	x
Observations	76	76	69	69	69	69
R-Sq	0.104	0.135	0.251			0.253
First Stage F-stat				8.09	7.29	
Shea Partial R-sq				0.2858	0.277	
Hansen-J (p-value)				0.4003	0.633	
Hausman test (p-value)				0.1106	0.165	

Interaction Effects

We estimate…

$$\Delta y_i = \beta + \pi v_{i1} + \delta \Delta \tau_i + \gamma (v_{i1} \cdot \Delta \tau_i) + \Delta X' \Lambda_i + \Delta u_i$$

For number of producers, off-market consumption, and total wine production…

Then, we look at…

$$\frac{\partial \Delta y_i}{\partial \Delta \tau_i} = \delta + \gamma \cdot v_{i1}$$

Figure 6b: Effect of Tax Rate on Number of Recoltants As Value of Production Increases

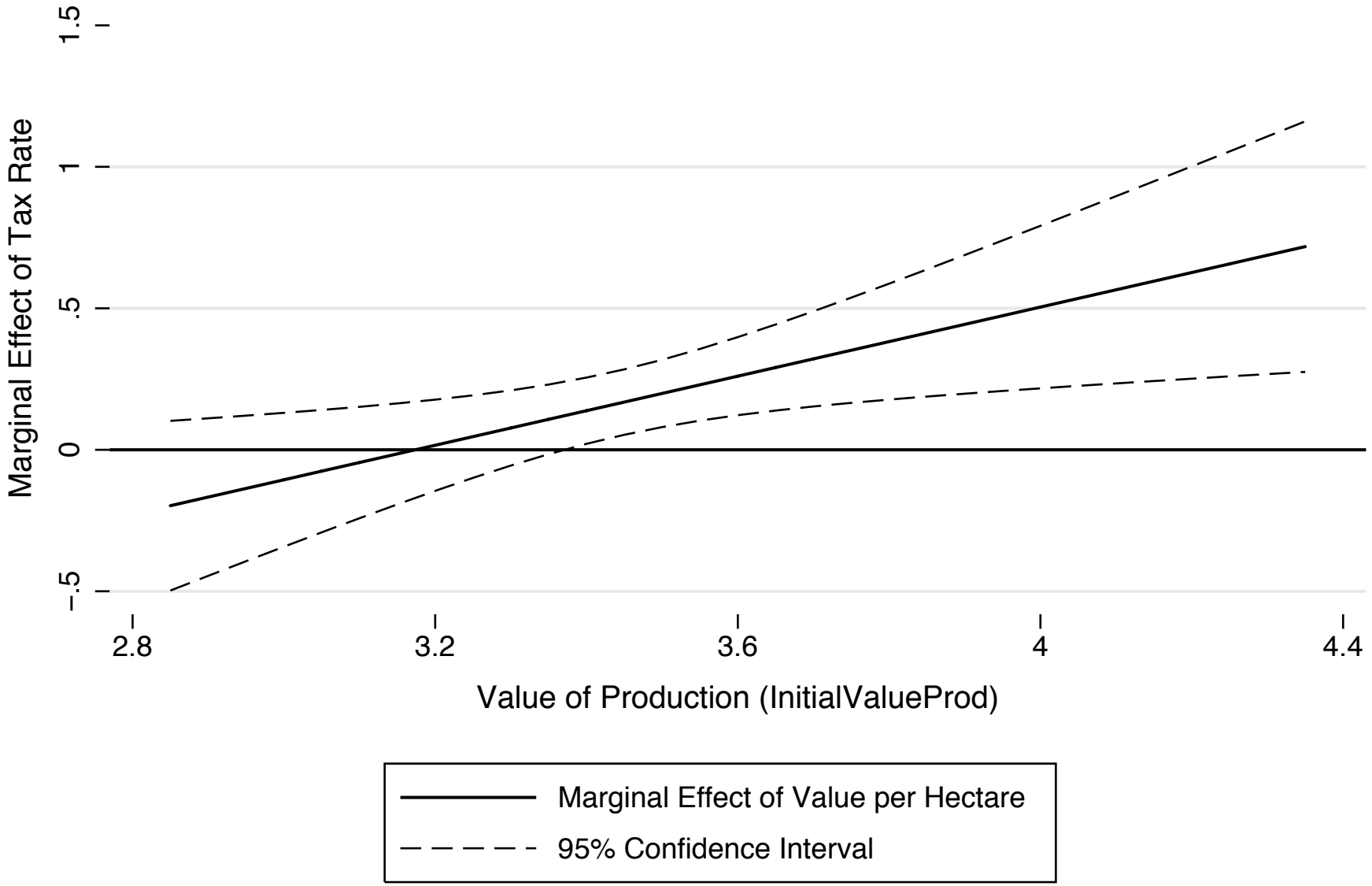


Figure 6a: Effect of Tax Rate on Proportion Farm Consumption As Value of Production Increases

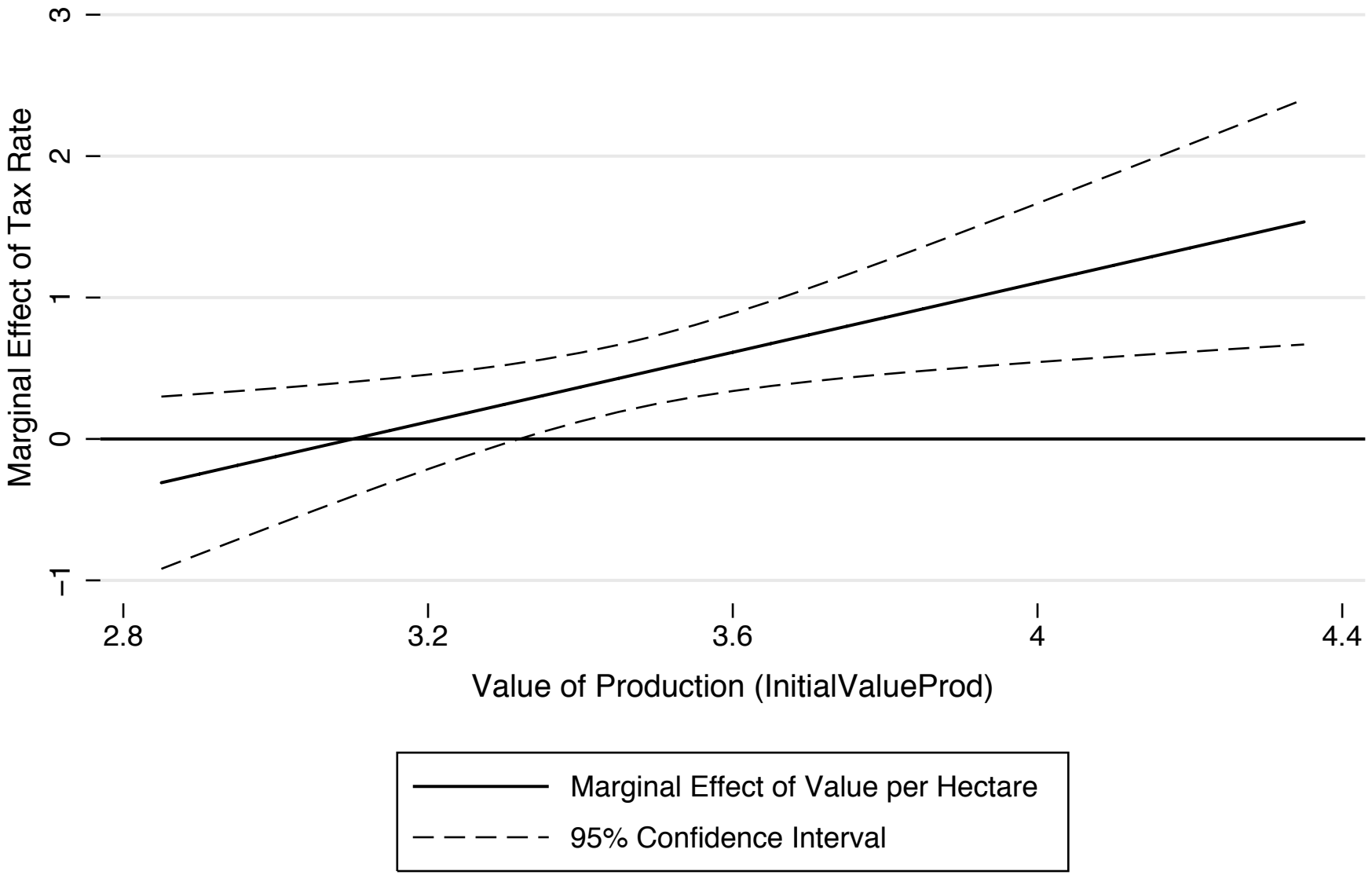
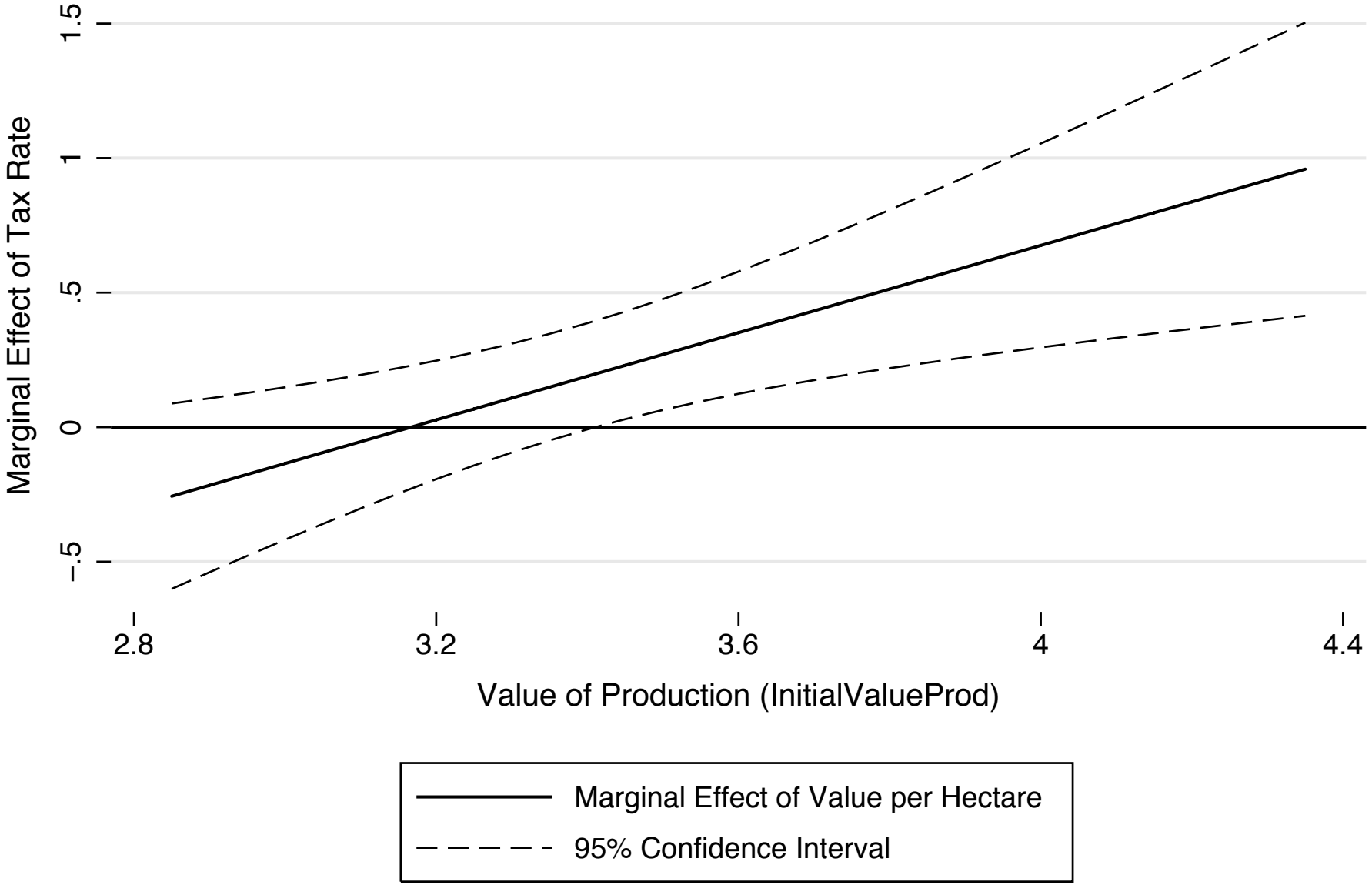


Figure 6c: Effect of Tax Rate on Wine Production As Value of Production Increases



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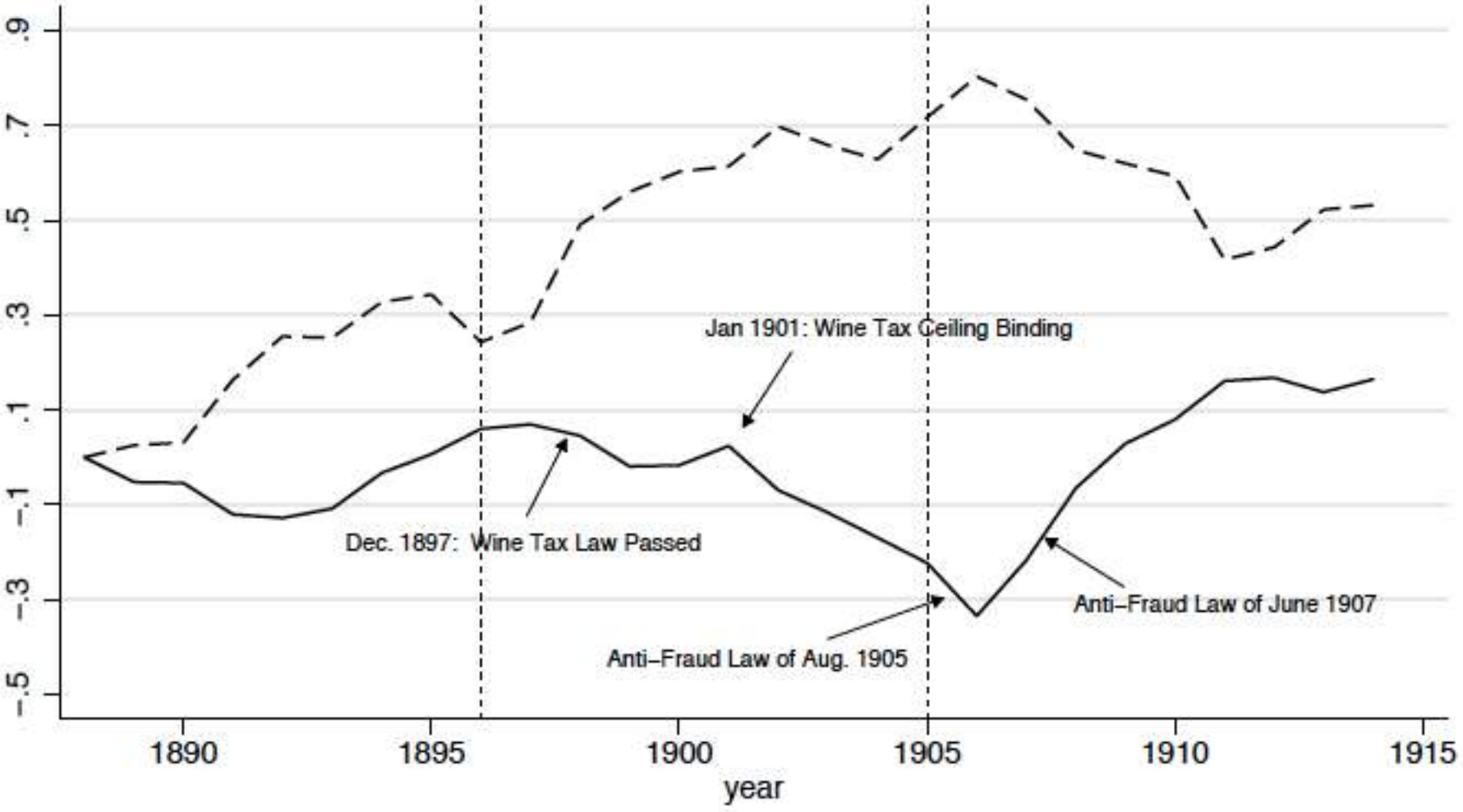

Notes: Data from various years of the Annuaire Statistique. Five year moving averages. Scale of wine production is log(hectoliters). Midi departments are Herault, Pyrenees Orientales, Gard, and Aude.

NUMBER OF VINE-WORKERS' STRIKES BY YEAR IN THE MIDI 1902-1911*

	Aude	Hérault	Pyrénées-Orientales	Gard	Total
1902	—	1	—	—	1
1903	1	5	—	—	6
1904	72	59	34	4	169
1905	6	3	3	—	12
1906	3	2	—	1	6
1907	4	1	—	—	5
1908	8	4	8	—	20
1909	5	—	1	—	6
1910	—	25	3	11	39
1911	9	17	6	4	36
Total	108	117	55	20	300

* Notes and sources: France, Direction du Travail, *Statistique des grèves et des recours à la conciliation et à l'arbitrage survenus pendant l'année*[s] *1902-1911* (Paris, 1903-13). The figures for 1904 include those for the general strike in December.

1907 in the South of France, “Vigneron Riots”

The phylloxera had weakened many of the small producers and once taxes were lowered, they lost everything. Forced to sell land and work for wages…

Bouilleur de cru Marcelin Albert. Wanted to defend small growers from “economic exploiters” such as defrauders, merchants, and the government.

In 1905 the Confédération Générale des Vignerons formed to root out fraud.

Jean Jaurès , leader of the socialist party, wanted to nationalize the wine industry. This was defeated in the Chamber of Deputies (lower house) on 11 June, 1907.

Georges Clemenceau, the Premier, sent in army on June 18th to restore order after local rioters stopped paying taxes, working, local magistrates stopped reporting to Paris. Over 250 killed in the ensuing conflict…

Regulations passed in 1905 and 1907 making it illegal to produce “adulterated” wine. Rules regarding additives, total weight of production, what is done with “musts”, etc….

First law governing appellation d’origine established in Bordeaux and Champagne. Strengthened in 1907.

These rules largely enforced by confederations of wine producers. In the Midi alone they spent about 400,000 L. in 1912 on enforcement. Across whole country government only spent 1,100,000 L.

Conclusions

1. Local tax policy delayed market integration in nineteenth century France.

2. It was the centralized state that attempted to eliminate local, autarchic, tax polcies at the end of the nineteenth century.

3. In the long-run, however, there was a shift from protectionist taxes at the local level, to protectionist regulations provided at the national level.

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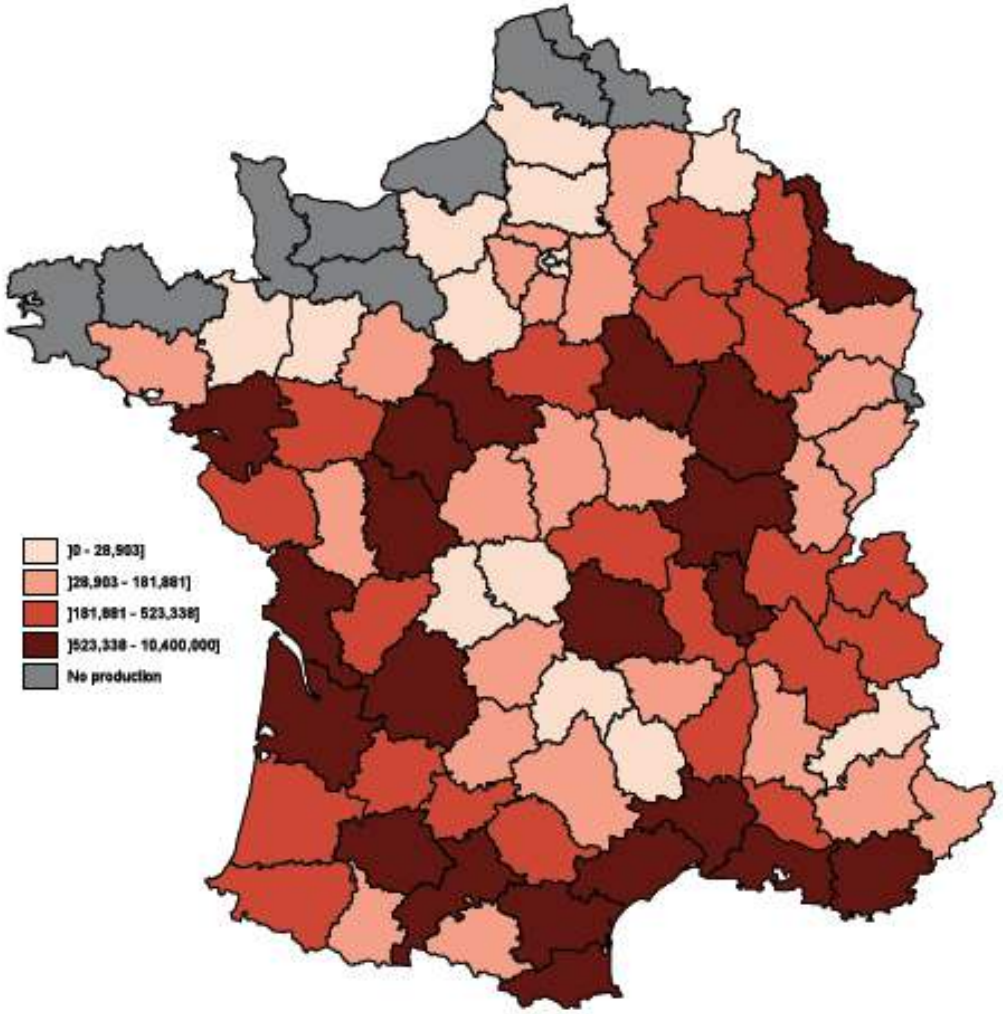
Most Regions Produced Wine at End of Nineteenth Century

Figure 1: Departmental Wine Production, 1896-1900



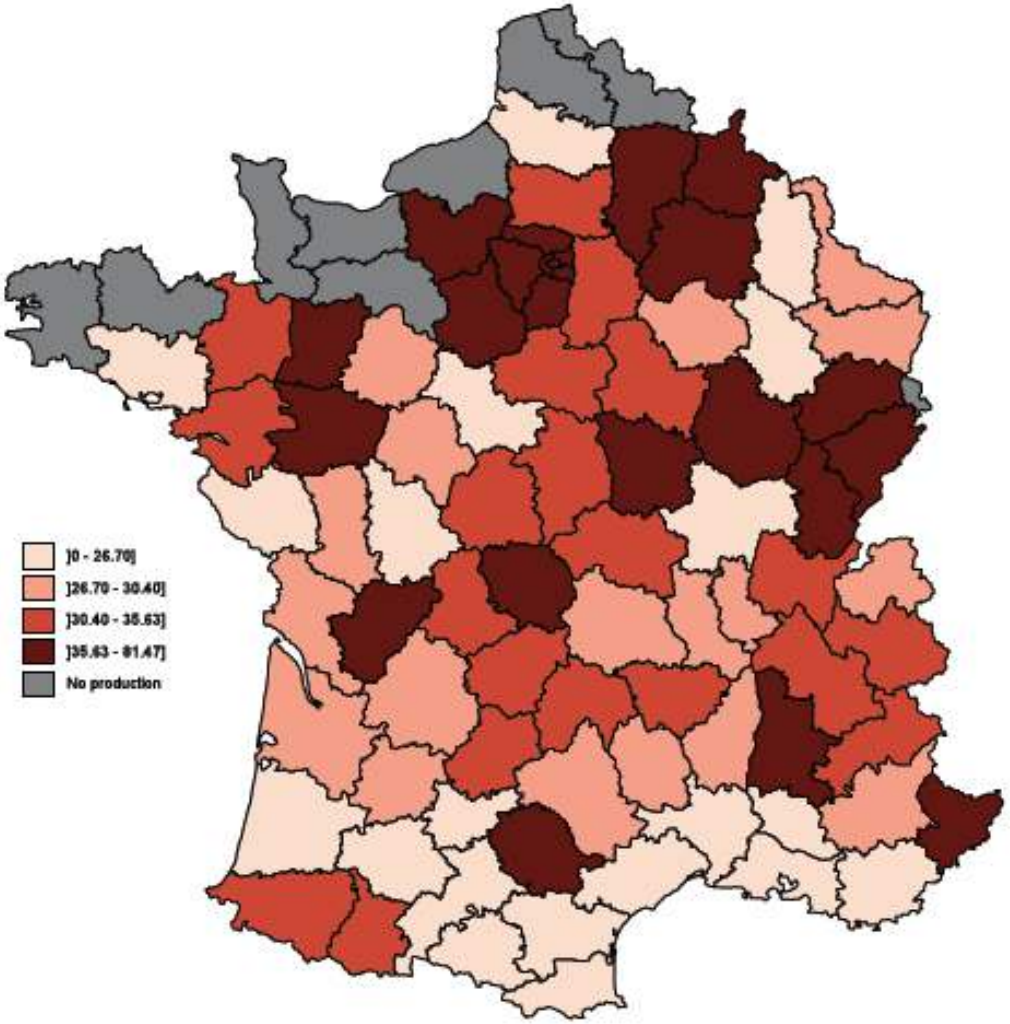
Average Vigneron produces 21 hectoliters

Average Consumption p.c. is .9 hectoliters

Average producer making enough wine for 23 people

But Not Clear That All Regions Should Have Been Producing

Figure 2: Value of Wine Production by Department, 1896-1900



Panel A: Full Sample

Variable Name	Description	Obs	Mean	Std. Dev.	Min	Max
DiffWineTaxRate	Difference in Log of Real Wine Tax Rate (real francs per hectoliter)	76	-.9236778	.3684129	-2.308709	-.3553174
DiffRecoltants	Difference in Log Number of Wine Producers	76	-.035529	.2425459	-1.131271	.4351196
Dichotomous Tax Rate Treatment	= 1 if change in tax rate < mean change	76	0.2894737	0.4565315	0	1
DiffPropEnFranchise	Difference in Log of Proportion of Consumption on Farm	76	-.0718824	.5273625	-1.54889	1.692301
DiffProduction	Difference in Log of Wine Production (hectoliters)	76	.2471274	.3978446	-.7130041	1.646446
DiffRailways	Difference in Log of Railway Track (kilometers)	76	566003.6	208329.7	191381.9	1129018
DiffProdWheat	Difference in Log of Froment Production (hectoliters)	76	0.036609	0.1641917	-0.4102945	0.3985596
CostSchool	Log of Average Cost of Lycee Construction (Francs)	76	10.03598	.2947274	8.894258	10.57103
CostWine	Log of Value of Production After Tax Decrease (francs)	76	3.170917	.3076361	2.326357	4.146908
InitialValueProd	Log of Initial Value of Production per Hectare (francs), 1896-1900	76	3.415602	.3165157	2.80336	4.400236
Interact	(DiffWineTaxRate) x (InitialValueProd)	76	-3.180655	1.354271	-7.432475	-1.053794

Panel B: Sample Restricted to top Ten Percent of Wine Producers

Variable Name	Description	Obs	Mean	Std. Dev.	Min	Max
DiffWineTaxRate	Difference in Log of Real Wine Tax Rate (real francs per hectoliter)	69	-.8931228	.3647416	-2.189009	-.3553174
DiffRecoltants	Difference in Log Number of Wine Producers	69	-.017552	.2097907	-.571013	.4351196
Dichotomous Tax Rate Treatment	= 1 if change in tax rate < mean change	69	.2463768	.4340574	0	1
DiffPropEnFranchise	Difference in Log of Proportion of Consumption on Farm	69	-.0600449	.4454439	-1.358215	.8135283
DiffProduction	Difference in Log of Wine Production (hectoliters)	69	.2186733	.3409205	-.6116948	1.036441
DiffRailways	Difference in Log of Railway Track (kilometers)	69	562462.1	207596.1	191381.9	1129018
DiffProdWheat	Difference in Log of Froment Production (hectoliters)	69	.027373	.165124	-.4102945	.3985596
CostSchool	Log of Average Cost of Lycee Construction (Francs)	69	10.02538	.3030428	8.894258	10.57103
CostWine	Log of Value of Production After Tax Decrease (francs)	69	3.146632	.2990006	2.326357	4.146908
InitialValueProd	Log of Initial Value of Production per Hectare (francs), 1896-1900	69	3.419886	.3157897	2.808686	4.400236
Interact	(DiffWineTaxRate) x (InitialValueProd)	69	-3.083918	1.35028	-7.432475	-1.053794

$$\frac{\partial\left(q_{iH}/q_{iL}\right)}{\partial\tau}=\frac{q_{iH}}{q_{iL}}\left[\left(\eta_{HH}-\eta_{HL}\right)\left(\frac{1}{p_{iH}^{*}}-\frac{1}{p_{iL}^{*}}\right)+\left(\eta_{LC}-\eta_{HC}\right)\frac{1}{p_{iL}^{*}}\right]$$