
PDOs Labels in Spanish Wines: Signals of Quality or Just Noise?

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Introduction

- Wine labeling is a complicated matter in Spain.
 - Different quality cues are expressed: wine harvest, type of grape, alcohol level, origin...
 - Different regional designations and classifications
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When labeling is too much...



Labelling ?


European Commission
Agriculture and Rural Development

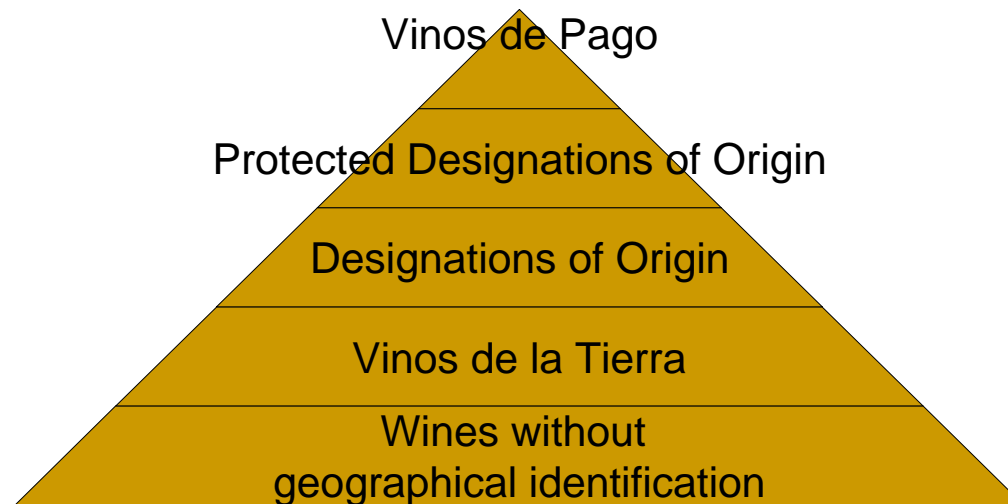
US	EU (table wine with GI's)
<ul style="list-style-type: none">▪ Trade mark▪ Region of origin▪ Wine variety▪ vintage▪ Producer and bottling▪ Alcoholic strength	<p><u>Compulsory</u></p> <ul style="list-style-type: none">▪ Name of the country of origin▪ Name of the GI's▪ Bottler, consignor or importer▪ Lot number▪ Alcoholic strength▪ Nominal Volume▪ Sulfite level <p><u>Optional</u></p> <ul style="list-style-type: none">▪ Type of product▪ Wine variety▪ Vintage▪ Name of the holding▪ Other (traditional mentions, award...)

Large Geographical Diversity

Spanish wine producing areas



Different Geographical Labeling Types



Protected Geographical Indicators: Some Popular Examples

Many others....



Are these labels signals of quality?

- PGI labels are denoting credence attributes
 - Although there is an experience component, in order to buy the product for the first time, consumers have to believe the claim made.
 - These attributes are more difficult to market: information delay
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Are these labels signals of quality?

- The reasons credence claims are thought to market are because:
 - Consumers have to believe the appellation conveys some extra quality level.
 - Consumers have to believe that the claim is true.
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What does the literature tell us?

- The literature says that:
 - ❑ In order to be successful such claims should be accurate, understandable and verifiable signals.
 - ❑ Collective reputation of regional producers matters
 - ❑ Third party monitoring is needed
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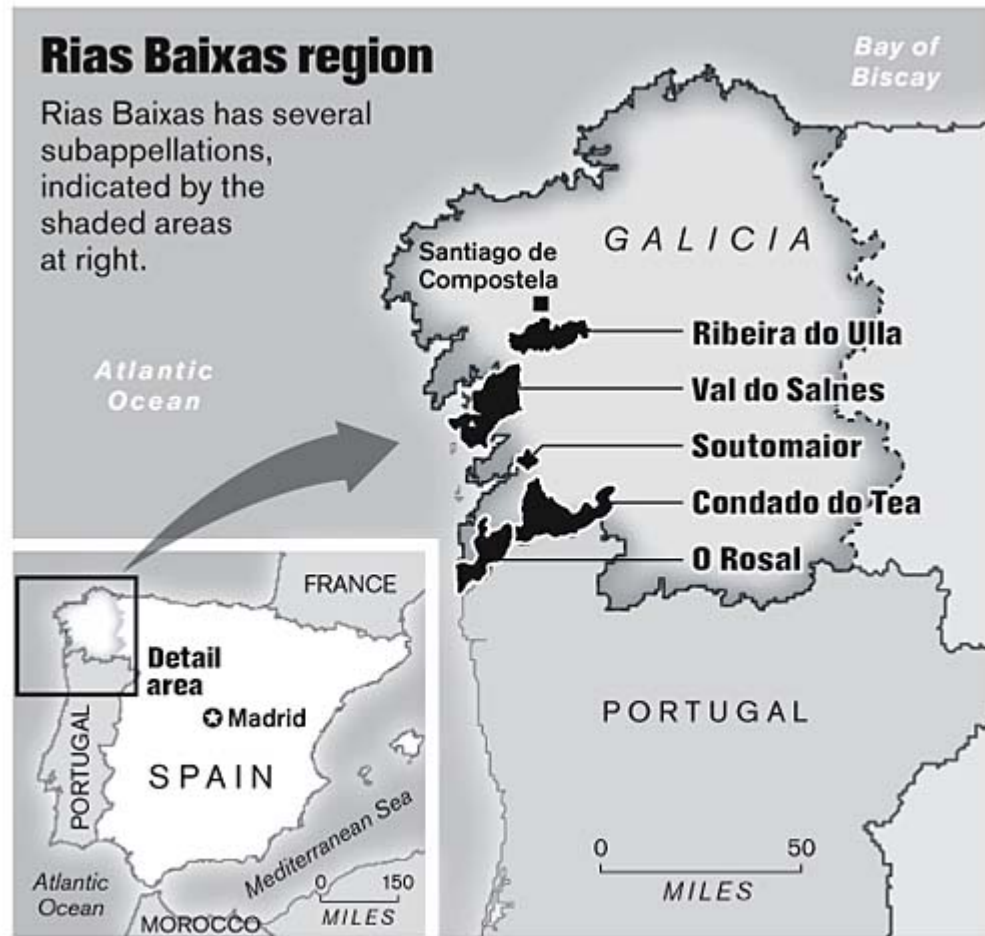
Label proliferation and noise

- Labeling proliferation is a serious concern with European wines
 - More than **300 appellations** of origin in **France**
 - **62 in Spain** regional designations of origin
 - Some of them very new
 - Moderately EU wines are losing markets to other “new world” wines.
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New Labels and Noise?

- We may expect more recent PDOs to gather lower price premiums than more established PDOs.
 - Less consumer recognition
 - More volatile demand/supply
 - Less established
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Recent PDOs with success...



- *SF Chronicle, Albarino is in the air: Perfect springtime wine from Spain makes a pilgrimage to the New World*

- The taste of youth...Albariño wines and Rias Baixas



Objective and Methodology

- To assess the role of the PDOs and Dos in wine pricing
 - Do PDOs or POs carry a premium?
 - Hedonic Pricing Model
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Data

- Data comes from popular wine guide “*300 Mejores Vinos de España, 2003*”.
 - From this guide, information was collected about:
 - wine price
 - harvest year
 - type of grapes
 - whether the wine has a PDO/DO label, degrees of alcohol,
 - number of bottles produced, and the quality score assigned by the authors.
 - Wine quality scores from other guides
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Data Description: Quality is multidimensional

■ Quality Indicators:

- ❑ **Crianza** wines are those that have been aged for two years
 - ❑ **Reservas** are aged three years
 - ❑ **Gran Reservas** (also known as *Reserva Especial*) are aged at least five years
 - ❑ **PDO/DO** or no geographical indication
 - ❑ **Author's Guide Scores (1-10)**
 - ❑ **Listed in other wine lists: Peñín wine list; Proensa wine list**
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Data Description (cont)

Quality Store	1=lowest, 10=highest	7.947	0.498
PDO	PDO=1 if wine is Rioja or Penedés, 0 otherwise	0.263	0.441
Alcohol	Alcohol content (degrees)	12.590	3.219
<i>Crianza</i>	1=Wine aged at least 2 years, 0 otherwise	0.699	0.459
<i>Reserva</i>	1=Wine aged at least 3 years, 0 otherwise	0.106	0.102
Red wine	1=Red wine, 0 otherwise	0.470	0.499
White wine	1=White wine, 0 otherwise	0.224	0.418
Rosé wine	1=Rosé wine, 0 otherwise	0.056	0.230

1. Methodology: Hedonic Models

1. **Baseline Model:** Valuation of PDO: Rioja and Penedés
 2. **Simple DO model: Joint** Valuation of all Spanish Dos.
 3. **DO differentiated model:** Differentiated valuation of each Spanish DO.
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1. Methods: Hedonic Models

1. Hedonic Model: **Value of PDO** :Rioja and Penedés

$$\begin{aligned} Price = & \beta_0 + \beta_1 Age + \beta_2 QualityScore + \beta_3 PDO + \beta_4 Alcohol + \\ & \beta_5 Crianza + \beta_6 Redwine + \beta_7 Whitewine + \beta_8 Roséwine + \\ & \beta_9 Sparlingwine + \varepsilon \end{aligned}$$

We hypothesized that the DO label's effectiveness in obtaining a premium depends on the wine type that it is associated with.

1. Results DO

logprice	Coef.	Std. Err.	t	P> t
PDO	.1634629	.087176	1.88	0.062
Alcohol	.0702987	.0262453	2.68	0.008
Crianza	.2050807	.1445397	1.42	0.158
Reserva	.7894664	.389857	2.03	0.044
Pen	-.1135697	.1344306	-0.84	0.399
Puntuacin	.3522057	.0945111	3.73	0.000

Results: Comments

- Wines with a PDO designation of origin carry a premium (16%) over others that do not have such designation.
 - Older harvests carry higher premia
 - Reserva wines (aging) before going to the market carries a premium
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2. Hedonic Models-Results for all DO

	Coef.	Std. Err.	t	P> t
do	.0834274	.1864991	0.45	0.655
alcohol	.0653997	.02635	2.48	0.014
crianza	.2192297	.1457472	1.50	0.134
reserva	.7828554	.3943114	1.99	0.049
pen	-.1146108	.1388048	-0.83	0.410
puntuacion	.3557113	.0953484	3.73	0.000

R-adjusted=0.74

Results Hedonic Model: Selection

logprecio	Coef.	Std. Err.	t	P>t
rioja	.4269608	.11225	3.80	0.000
riasbaixas	.5155595	.1313406	3.93	0.000
penedes	.0019761	.1189351	0.02	0.987
riberaduro	.3357942	.1454575	2.31	0.022
navarra	-.3066873	.1649137	-1.86	0.065
jumilla	-.4496104	.2323792	-1.93	0.055
cava	-.6066087	.3273159	-1.85	0.066
bierzo	-.1513773	.3318246	-0.46	0.649
lamancha	-.324924	.1956918	-1.66	0.099
valdeorras	-.0621578	.3271796	-0.19	0.850
ribeirasacra	.5480351	.3207079	1.71	0.089
terralta	.0317617	.266491	0.12	0.905
cariñena	-.3174837	.2670225	-1.19	0.236

Results Coments

- PDO such as Rioja, DO Ribera del Duero are signals of good quality red wines
 - Rias Baixas is a signal of good wine wines
 - Other geographical identifications suffer due to their lack of recognition
 - Marketing strategies may be employed
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Conclusions

- Labeling is becoming confusing
 - PDOs may carry a market premium, but also may have a negative effect over prices
 - Price premiums should be contrasted with costs required to protect food names.
 - Is it worth it to protect food names from an economic view point?
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Future Work

- These results should be taken with care: future work is needed
 - Use richer data:
 - Panel data model
 - Include other quality signals:
 - Recommendations of wine by popular chefs
 - Wine Spectator quality index if possible
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...Thank you for your attention

- Questions or comments?

