

Globalization, Superstars, and the Importance of Reputation: Theory and Evidence from the Wine Industry

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**Competitive Forces Affecting the Wine and Winegrape Industries: An International
Conference on World Wine Markets
Davis, California, August 8-11, 2007**

Motivation

- The wine industry is in a turmoil
 - EU: change in subsidies policies, destruction of vines, plans to reform the appellation system
 - Various plans elsewhere as well
- Source: globalization and more competition, new world vs. old world
- We observe a “dualisation” of the market
- Selection criteria: REPUTATION

What We Do in this Paper

- We propose a simple model of the wine industry based on Rosen's superstars paper, and on the literature on reputation
- Clear empirical predictions that we test:
 - With an increase in market size (due to globalization), the sensitivity of price to experts' opinion increases
 - Change in experts' opinion has larger effect if reputation is high

Motivation - The Importance of Reputation

- How is reputation built?
- Characteristic of wine: quality unknown
ex ante
- Need for experts to reduce informational
asymmetry

Literature (I): Economics of Reputation

- Based on Diamond (1989) and simplified by Cabral (2005) [see also Kreps and Wilson, 1982 and Milgrom and Roberts, 1982]: Bayesian updating about the quality of the seller by observing the quality of the product (or signals about the quality of the product)
- Empirical papers: Jin and Leslie, Cabral and Hortacsu,...

Theoretical background

- Parker notes provide biased signals about quality
- Prices reflect quality
- So when Parker notes change, prices should adapt to new information
- However, signals matter differently for different types of wines
- Theory suggest it should matter more (less?) for wines of higher reputation

Literature (II): Superstars

- Convexity of net revenue: “small differences in talent become magnified in larger earnings differences, with great magnification if the earnings-talent gradient increases sharply near the top of the scale”
- “Convexity of returns and the extra skew it imparts to the distribution of earnings can be sustained by imperfect substitution among different sellers, which is one of the hallmarks of the types of activities where superstars are encountered”
- Increase in the size of the market increases inequality

Literature (III): Expert's Opinion and Prices

- Large literature estimating hedonic price regressions
- Nothing on the dynamics, no link with reputation
- Performance endogenous? Here: we take experts' opinions as granted

Data

- From eRobertparker.com
 - California: Cabernet Sauvignon (3250 obs.), Zinfandel (1909 obs.), Central Coast (971 obs.)
 - France: St Emilion (2596 obs.), Margaux (696 obs.), Pessac-Léognan (702 obs.), Pauillac (702 obs.), St Estèphe (371 obs.), St Julien (488 obs.), Pomerol (2000 obs.)
 - Spain: Rioja (263 obs.), Ribera del Duero (276 obs.)
 - Australia? Chile? ...

- Very interesting feature of the dataset:
Parker tastes the same wine from the same vintage more than once !
- We know:
 - the tasting date (month, year), the Parker note, name of the wine, the vintage, the region, the average quality of the vintage for the year, an estimated cost of the wine in the U.S.,...

Data (III)

- Combined with price panels:
 - For Bordeaux wines
 - From one of the main wine brokers in Bordeaux, “en primeur” and spot prices of 254 chateaux (estates), over 16 vintages, starting in 1982
 - Spot prices are available quarterly for a period of 4 years, from July 1996 to December 2000
 - Note: the wine broker probably sets price strategically
 - SOON: Californian wines auctions

Measure of reputation

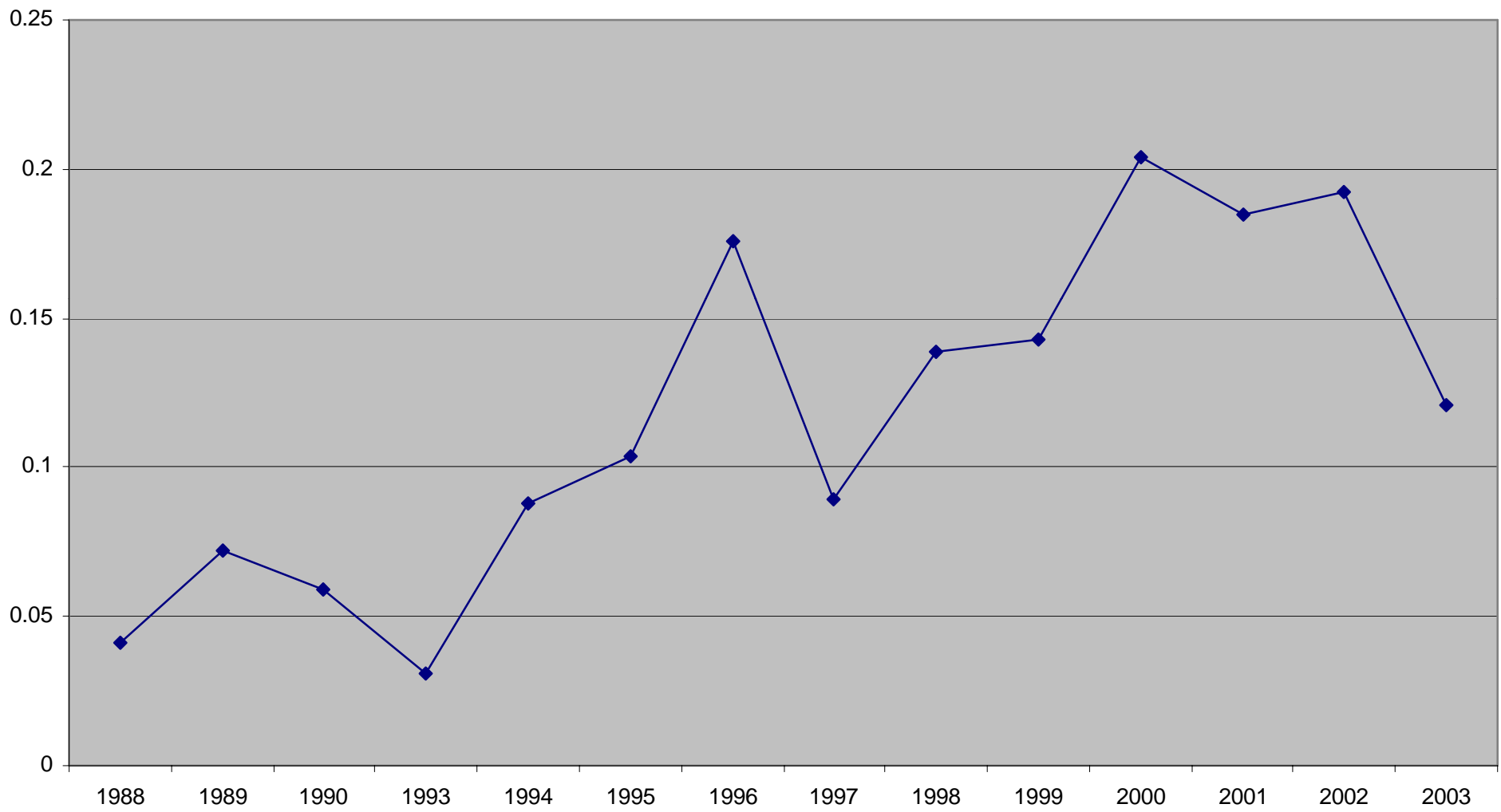
- At this stage, we use the historical classification of vineyards (Châteaux)
- However, we want to test for alternative measures

Empirical Methodology

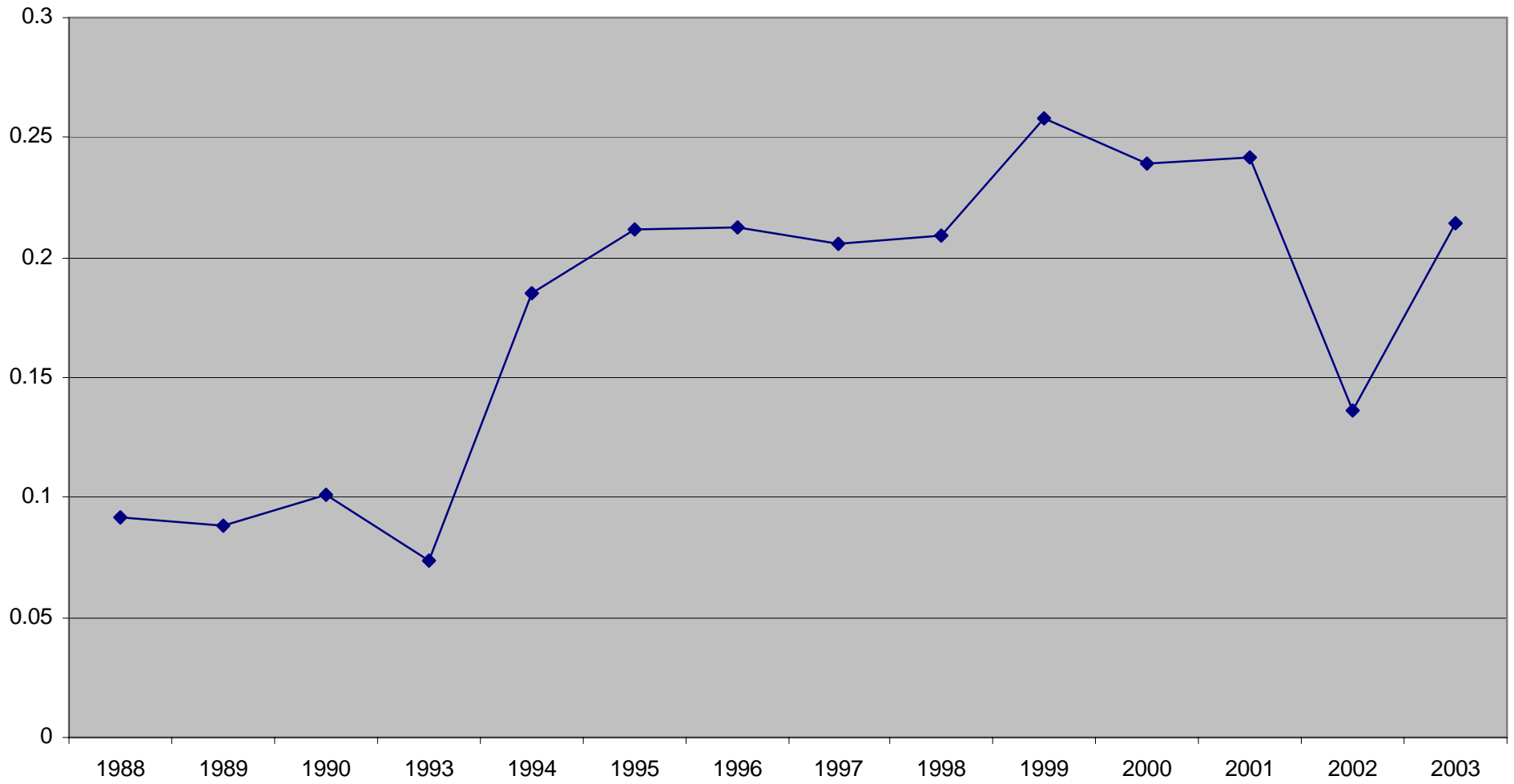
- Step 1: look at the evolution of the sensitivity of price wrt parker notes for each region

$$\log\left(\text{Price}_{ivjt}\right) = \alpha + \beta_{jt} \log\left(\text{Parker}_{ivjt}\right)$$

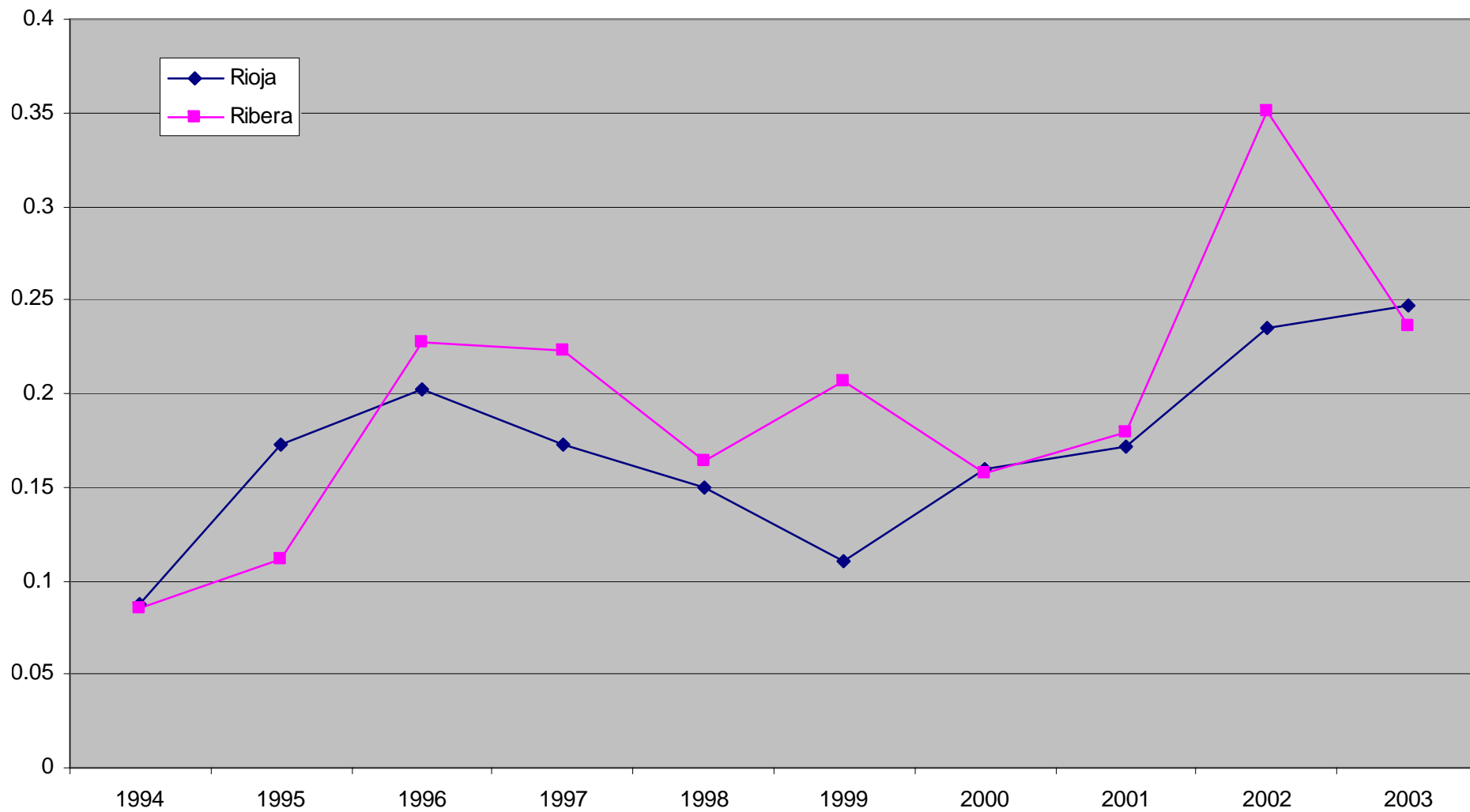
The Increase of the Sensitivity of Price to Parker Points: St Emilion



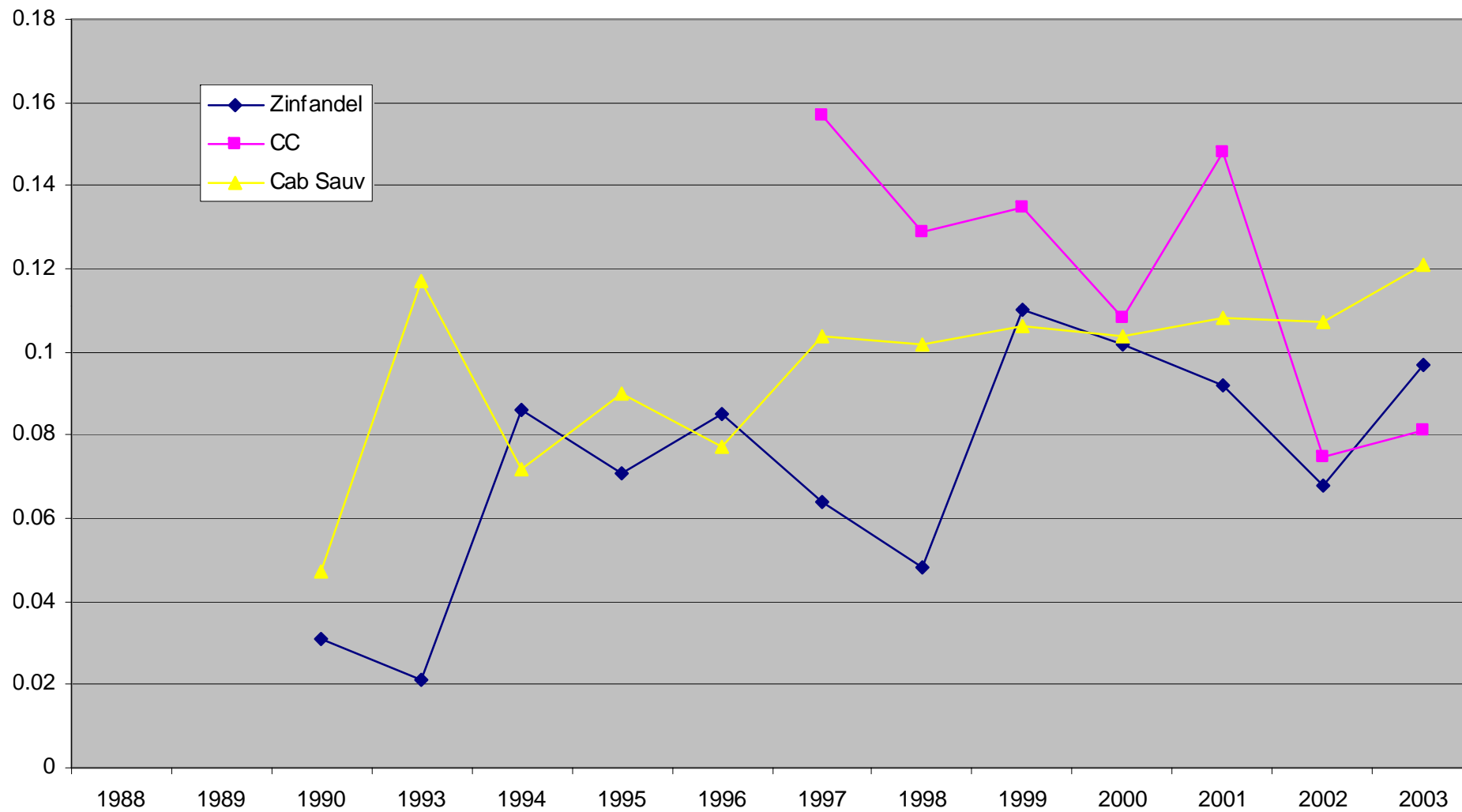
The Increase of the Sensitivity of Price to Parker Points: Pomerol



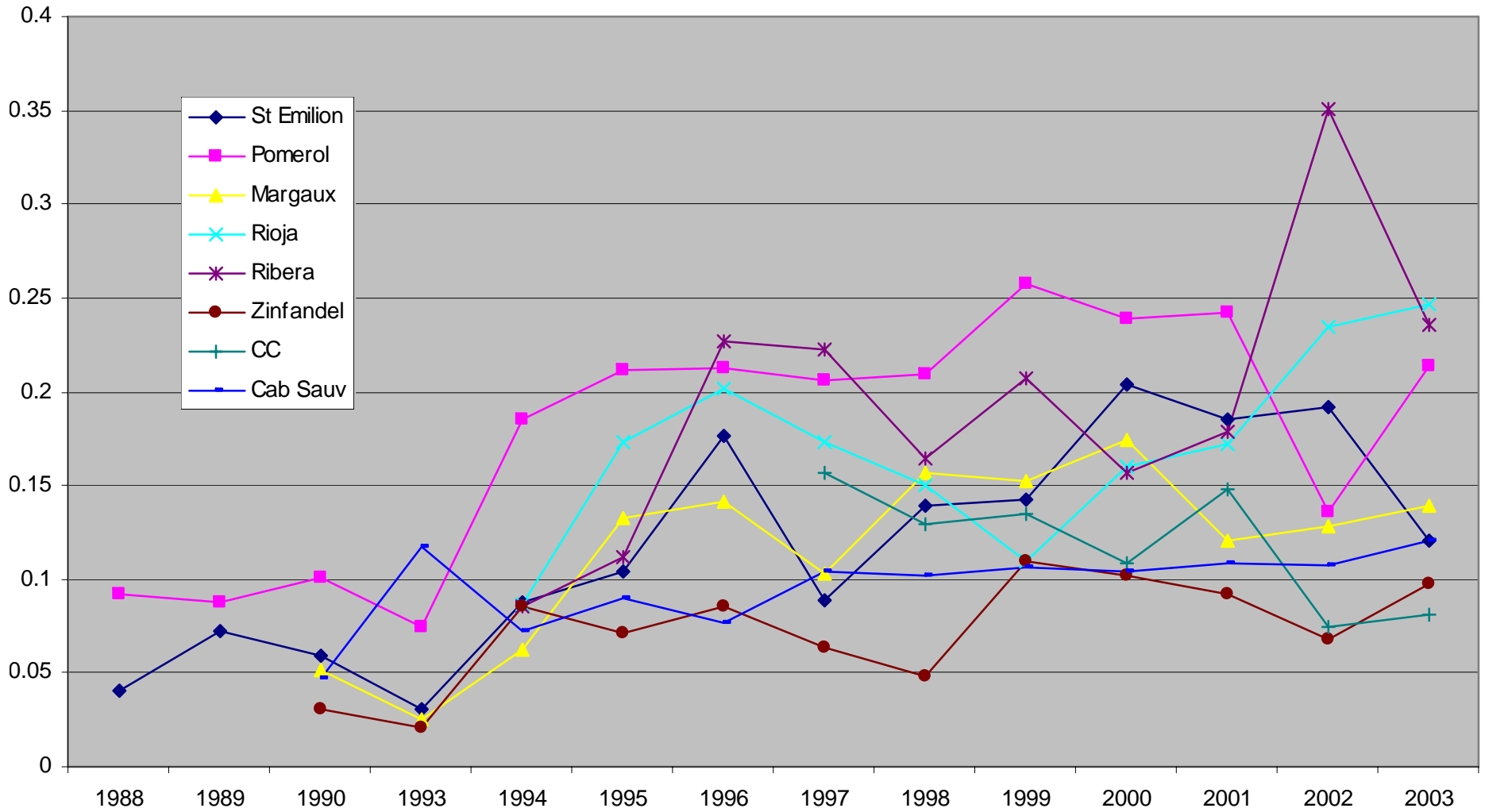
The Increase of the Sensitivity of Price to Parker Points: Spain



The Increase of the Sensitivity of Price to Parker Points: California



Comparing Trajectories



Empirical Methodology (II)

- Look at the price change when there is a change in Parker's note for the same wine of the same vintage

$$\log(\text{Price}_{ivt}) - \log(\text{Price}_{iv(t-1)}) = \alpha + \beta_1 \left[\log(\text{Parker}_{ivt}) - \log(\text{Parker}_{iv(t-1)}) \right] \\ + \beta_2 \left[\log(\text{Parker}_{ivt}) - \log(\text{Parker}_{iv(t-1)}) \right] * \text{Reputation}_i$$

Empirical Methodology (III)

- Look at the price change between the same wine of different vintages and link it to the difference in Parker's note

$$\log(\text{Price}_{ivt}) - \log(\text{Price}_{i(v-1)t}) = \alpha + \beta_1 \left[\log(\text{Parker}_{ivt}) - \log(\text{Parker}_{i(v-1)t}) \right] + \beta_2 \left[\log(\text{Parker}_{ivt}) - \log(\text{Parker}_{i(v-1)t}) \right] * \text{Reputation}_i$$

Results for St. Emilion

| Dep. var.: $\Delta \log P$ | (1) | (2) |
|-------------------------------------|----------------|------------------|
| $\Delta Parker$ | 1.71* (1.00) | 1.60*** (0.40) |
| $\Delta Parker * Medium Reputation$ | -2.12** (1.04) | -1.75*** (0.46) |
| $\Delta Parker * Low Reputation$ | -2.45** (1.07) | -1.67*** (0.45) |
| <i>Medium Reputation</i> | 0.011 (0.023) | -0.002 (0.02) |
| <i>Low Reputation</i> | 0.006 (0.023) | -0.049** (0.023) |
| Nr. obs. | 105 | 939 |
| Adj. R2 | 0.19 | 0.53 |

Results

- Change in price strongly related to change in Parker's note
- However, relationship mostly true for the wines with the highest reputation

- Similar results for Pomerol, Pessac-Léognan, St-Estèphe, St-Julien and Pauillac for specification 2
- More complex for Margaux
- Specification 1 only for St-Emilion

- Results improve when we use lagged change in performance

Conclusion

- In line with some models of reputation, we find that a change in perceived quality affect prices differently according to the level of reputation enjoyed by the vineyard
- Relationship is different according to the region
- Need of a model that modifies the assumptions of Diamond, Holmström,...

Future Work

- **Other measure of reputation?**
Accumulated Parker notes?
- Dynamic prices from Californian auctions