Application of the Quantile Regression Approach to the Heterogeneity of the Fine Wine Prices

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Abstract : In this paper, the heterogeneity of the Bordeaux Legends 50 wine market price segment is addressed. For this purpose, quantile regression is applied – with market segmentation based on wine bottle price quantile – and the hedonic price of wine attributes is computed for various price segments of the market. The approach is applied to a major privately held data set which consists of approximately 30,000 transactions over the 2003–2014 period. The findings suggest that the relative hedonic prices of several wine attributes differ significantly among deciles. In particular, the elasticity coefficient of the expert ratings shows strong variation among prices. If - as suggested in the literature - expert ratings have a positive influence on wine price on average, they have a clearly decreasing impact over the quantiles. Finally, the lower the wine price, the higher the potential for price appreciation over time. Other variables such as chateaux or vintage are also shown to vary across the distribution of wine prices. While enhancing our understanding of the complex market dynamics that underlie Bordeaux wines' price, this research provides empirical evidence that the QR approach adequately captures heterogeneity among wine price ranges, which simultaneously applies to wine stock, vintage and auctions' house.
Keywords : hedonics, market segmentation, quantile regression, heterogeneity, wine economics
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