

L Industrial Organization

World Scientific Reference on Handbook of the Economics of Wine. Volume 1. *Prices, Finance, and Expert Opinion*. Volume 2. *Reputation, Regulation, and Market Organization*. Edited by Orley Ashenfelter, Olivier Gergaud, Karl Storchmann, and William Ziemba. World Scientific Handbook in Financial Economics Series, vol. 6. Singapore and Hackensack, NJ: World Scientific, 2018. Pp. xvii, 564; xv, 445. \$395.00, cloth set; \$396.00, e-book set. ISBN 978-981-4740-57-9, cloth set; 978-981-3232-73-0, e-book set. *JEL 2018-1011*

Understanding price formation and pricing on the wine market is challenging, since wine is different from other agricultural commodities and because the process of value creation is diverse and complex. This typical experience good raises important issues regarding horizontal and vertical differentiation, even more since it can reach very high-end prices. During the production process, climate fluctuations influence quality and quantities from one vintage to another. Then, wine can be stored and its quality (and therefore its value) also varies along the wine aging. It is therefore a topic of interest for economists, and recent years have seen an increase in work in wine economics, with wine becoming the most cited beverage in high-end general economic journals. Orley Ashenfelter has notably contributed to the emergence of this field, especially by his publishing of economic analyses in the newsletter *Liquid Assets*. At that time, the main topics were finance, climate, and experts' opinions. Then, they diversified and branched out to market regulation, quality signaling, and consumers. The book addresses this wide range of topics covering the crucial issues at stake for research in economics (especially quantitative methods and price prediction) and for the wine industry. The editors succeed in making this important contribution by collecting a wide set of research papers published between 1989–2016 from different academic journals and series of working papers.

The book is organized in two volumes. The first one focuses on "Prices, Finance and Expert Opinion." It begins with a part dedicated to wine and the natural environment. The authors focus

on climate change and natural endowments and test their relation to quality and prices of wine. There are likely to be winners and losers from different climate situations, and these chapters highlight the significant effect of the weather on both wine and land prices. The authors also consider the role of the *terroir*¹ on wine quality and show that it refers more to *typicity* and horizontal differentiation than to vertical differentiation. The concept of *terroir* matters economically, but is not significant for wine prices. Part 2 is dedicated to a hedonic analysis of wine prices. In a situation of imperfect information and because the quality of a wine is only known after tasting, signaling quality is a real challenge, and the way the consumers perceive the signals is still an issue of discussion. The authors highlight that the market price of wine can be essentially explained by the objective characteristics appearing on the bottle for regular consumers. But the wine market is divided into several market segments, which implies a variability regarding the implicit prices of the different attributes of a wine. Part 3—"Wine and Finance"—reflects the mixed existing literature on the topic. The chapters provide insights into the returns and risks associated with wine as an investment vehicle. Two of them show that wine provides positive returns and benefits from low exposure to market risk factors. However, for two other chapters, the rate of return on wine does not have a strong positive correlation with standard financial assets and can be low. Finally, all of them consider that including wine in an investment portfolio can provide a diversification benefit. The next part—"Wine Tastings and Competitions"—addresses methodologies for wine evaluation through tasters' ratings and rankings. It questions the reliability, replicability, and accuracy of blind-tasting evaluations in wine competitions, analyzing different sources of variation of the results. Part 5 gives a large space

¹"Vitivinicultural *terroir* is a concept that refers to an area in which collective knowledge of the interactions between the identifiable physical and biological environment and applied vitivinicultural practices develops, providing distinctive characteristics for the products originating from this area" (Resolution OIV/VITI 333/2010). Vineyard *terroir* is widely supposed to help explain the *typicity* of a wine from a particular area, and to give the wine specific characteristics related to this environment.

to wine and expert opinion, a topic that has generated an abundant literature. The chapters look at the impact of experts' grades on wine prices and show that they have an overall effect on the price of *en primeur*.² sales and consumers' willingness to pay, especially for highly graded wines. But when it comes to the ability of nonexpert consumers to rate wines, individuals enjoy surprisingly more expensive wines slightly less.

The second volume covers various topics related to "Reputation, Regulation, and Market Organization." It begins with a part dealing with reputation (i.e., quality perception). Reputation issues emerge in a situation of incomplete information. By signaling the quality of a product to consumers, favorable reputation enables firms to charge premium prices, attract better applicants, enhance their access to capital markets, and attract investors. The chapters shed light on how regional and producer brands are performing as wine markets mature in terms of global branding and how consumers are becoming more aware of wine regions, quality, and reputation. The second part investigates the multiple aspects of wine and regulation. The EU domestic context and international scenes have played an important role in the design of wine strategies and interventions. The chapters present the origin of wine regulation, but also analyze shipment regulation, planting rights, and the level of assistance to EU wine producers. The next part, entitled "Wine Auctions," presents the auction mechanisms and discusses the optimal strategies for the bidders and price decline anomaly. Then comes part 4 on supply and its implications, analyzing the role of wine grape contracts on price determination, but also the role of ownership on the performance of wine companies (with a premium for managing directors compared to owned managed firms), and finally value-chain financing through the example of barrel-specific funding. The last part of the book is dedicated to organization and groups, together various, but no less interesting, topics. The authors

²The market for *en primeur* wine is typical from the Bordeaux region (France) and allows producers to sell wine that is still in barrels and still very young to *négociants* (wine merchants in Bordeaux). This type of sale is reserved for the top and prestigious wines (mainly *Grands Crus*) and is a great deal of speculation.

analyze motivations of the owners in regards to wine quality and prices, as well as the influence of informed buyers in wine markets, the advancement of women in the industry, and the influence of wine evaluation at social-networking sites.

I am going to keep this book close at hand as the first reference handbook of the economics of wine, following up the one edited by Giraud-Heraud and Pichery (2013). While I enjoyed reading it, I just noticed that it probably appeals to academic economists or graduate students familiar with quantitative methods, rather than to a general audience, except for the introduction that is global and very interesting. It is a dense book (44 chapters), and a general conclusion to gather all these interconnected materials together would have been a good way to take it further. But this handbook definitely establishes a zero starting point with the insights everyone in the field should know of and would be interested in, as well as identifying research fronts to explore in the future.

REFERENCES

- Ashenfelter, Orley, Olivier Gergaud, Karl Storchmann, and William Ziemba, eds. 2018. *World Scientific Reference on Handbook of the Economics of Wine*. Singapore and Hackensack, NJ: World Scientific.
- Giraud-Heraud, Eric, and Marie-Claude Pichery, eds. 2013. *Wine Economics: Quantitative Studies and Empirical Applications*. Basingstoke: Palgrave Macmillan.
- International Organisation of Vine and Wine. 2010. "Resolution OIV/VITI 333/2010." <http://www.oiv.int/public/medias/379/viti-2010-1-en.pdf>.

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The Internet Trap: How the Digital Economy Builds Monopolies and Undermines Democracy. By Matthew Hindman. Princeton and Oxford: Princeton University Press, 2018. Pp. xii, 240. \$29.95. ISBN 978-0-691-15926-3, cloth. JEL 2019-0156

Over the past several years, the popular press and commentators have published strong critiques of the internet and its largest firms. This is in contrast to the previous several decades in which commentators typically lauded the great benefits we were all realizing from the rapid