

Is the second-cheapest wine a rip-off?*

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The second-cheapest bottle on a restaurant wine list is widely thought to be priced to exploit naïve diners embarrassed to choose the cheapest option. This paper investigates whether this behavioral theory holds empirically. We find that the mark-up on the second-cheapest wine is significantly below that on the four next most expensive wines. It is therefore an urban myth that the second-cheapest wine is an especially bad buy.

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Introduction

Restaurant wine lists are widely believed to exploit a negative version of the conspicuous consumption theory of Veblen (1899). Former Wall Street Journal wine columnists John Brecher and Dorothy Gaiter explain; "...the cheapest wine on the list is often a fine value, while the second-cheapest wine on the list is almost always the worst value, since people don't want to appear penurious by ordering the least expensive wine on the list."¹ An article in the Daily Telegraph, "Why you should never order the second-cheapest wine" (24/04/2014) delivers the same message, which is also endorsed by Ariely (2016).

Systematic evidence that the second-cheapest wine on the list is priced differently to other wines does not seem to have been collected, despite the claim resting on strong assumptions. It depends on diners regarding ordering the cheapest wine as uniquely embarrassing. Indeed, the wide circulation of the embarrassment theory may make the second-cheapest wine even less attractive than the cheapest since it is not only believed to be a bad buy but signals a pitiable effort to appear affluent. Even if diners do behave as naïve behavioral types, restaurateurs may choose not to exploit them, perhaps because doing so makes the more sophisticated types distrustful of their pricing policy. It is not obvious that the claim holds in practice.

This paper examines empirically whether the pricing of the second-cheapest wine on the list is exceptional. We find that mean absolute mark-ups increase steadily in rank, as predicted by Mussa and Rosen's (1978) non-behavioral model of product-line pricing. The percentage mark-up on the second cheapest wine is significantly below that on the third, fourth, and fifth cheapest wine and well below the peak mark-up, which tends to occur around the median wine on the menu. It is therefore an urban myth that the second-cheapest wine is especially exploitative.

In the remainder of the paper the data is described and mark-ups by menu price-rank are estimated. Then brief conclusions are drawn.

¹ Facebook, March 2, 2016, <https://www.facebook.com/winecouple/photos/a.168541269860041.33458.167910653256436/957853967595430/?type=3>

The Data

We sampled 249 London-based restaurants on Tripadvisor.co.uk in July 2015. We used a convenience sample of 199 restaurants from the top 1000 ranks, and another 50 from lower ranked restaurants i.e. ranks beyond 2000. We clicked randomly at restaurants 2-3 ranks apart, and checked if the restaurant had an online wine menu that was no longer than 3 pages. If so, the restaurant was included in the sample, and if not, we moved to the next ranked restaurant. The median Tripadvisor ranking of the sampled restaurants was 600. The information on the wine menus was "read in" by a customized computer program (validated by human spot checks.) Of the sampled restaurants, 235 had "readable" wine menus, one each of red and white. These 470 menus had 6335 wines listed. The menu information coded included name of the wine, description if any, vintage year(s), position on the menu (or submenu), and price per bottle (or large or small glass).

The name, description, and vintage year of the wines were run through Wine-searcher.com that gives the cheapest available retail prices. An exact match was found for 66% of the wines. The mean % mark-up over retail (margin/cost) was about 303% - very similar for both red and white wines. In choosing restaurant wine, the relevant comparison for diners is probably with the retail option. Knowing that the menu price of a wine is unusually high relative to its supermarket price would likely be regarded as a rip-off and discourage its choice. Wholesale price is the relevant input cost for both the menu price and the retail price but is difficult to obtain. Retail and menu prices are highly correlated with r^2 of over 0.92, suggesting that retail price is a good proxy for wholesale price.² At all events, the second-cheapest wine is likely to be specially priced if and only if there is a spike in its mark-up over retail.

Table1 about here

Table 1 provides summary descriptive statistics for the menus and the mark-ups.

² Jaeger and Storchmann (2011) find a (weak) positive correlation between retail price and price dispersion. It is therefore possible that use of the lowest retail price may generate a tendency for our mark-up measure to increase with price.

Is the second-cheapest wine special?

According to the embarrassment theory, restaurateurs exploit the enhanced willingness to pay of naïve diners for whatever wine is the second cheapest. The test is therefore whether this wine commands a mark-up above that of its neighbours.

Figure 1 about here

Figure 1 plots the absolute mark-up (menu price minus retail price) and the percentage mark-ups by menu-price rank. The point estimates are derived from regressions of mark-ups on rank dummies.³ Absolute mark-ups rise slowly for the first 5 ranks then more rapidly as price differences become greater.⁴ The relative-mark-up displays an inverse-U pattern, rising at the cheap end, high on the mid-ranked wines, and then falling at the high end.

Plotting mark-ups relative to the cheapest wine while controlling for menu fixed effects where a menu is a unique restaurant and wine type (red or white wine) combination yields a similar pattern. Figure 2 displays the regression coefficients on rank dummies with the 95% confidence intervals, computed using robust standard errors clustered on menus. Neither absolute nor relative mark-up on the second cheapest wine stands out as anomalous.

Fig 2 about here

Percentage mark-ups are highest on mid-range wines. Regressing the rank of the peak percentage mark-up on menu length, the relationship is increasing but not proportionately. A possible explanation for this inverse-U pattern is that at the low end, margins are kept down to encourage wine consumption. At the high end, low margins induce upgrading to higher absolute mark-up wines without encouraging unprofitable downgrading.⁵

³ We estimate regressions without the intercept so that we do not have to omit any rank.

⁴ Combining ranks 3,4 and 5, the mark-up on the second-cheapest wine is significantly lower.

⁵ See de Meza and Pathania (2021) for fuller explanations and alternative tests involving comparisons of identical wines.

Conclusion

The second-cheapest wine on the menu is widely claimed to be an exceptionally bad buy. It is argued that gouging restaurateurs exploit naive diners whose main concern is not so much what they drink as not being exposed as stingy in a relatively public arena. This sounds a plausible story, but as far as we know the claim has never been investigated empirically. Our data refutes the second-cheapest conjecture.

Aversion to buying the cheapest option potentially influences many product lines, but if it is to apply anywhere, it seems that the wine list, so public and social, is perhaps the most likely. Although we find no evidence that the second-cheapest wine is priced anomalously this does not rule out that embarrassment plays a role. There has to be a cheapest wine but adding an even cheaper wine might increase demand for the previously cheapest by eliminating its stigma, violating the independence of irrelevant alternatives axiom.

References

Ariely, D (2016) On the Bordeaux battlefield, in *Behavioral economics saved my dog*.

de Meza, David and Vikram Pathania (2021) “ Is the Second Cheapest Wine a Ripoff? Economics vs. Psychology in Product Line Pricing” American Association of Wine Economists, Discussion Paper 264

Jaeger, David A. and Karl Storchmann (2011) “Wine Retail Price Dispersion in the United States: Searching for Expensive Wines?”, *American Economic Review: Papers & Proceedings*, 101 (3): 136 – 141.

Mussa, M., Rosen, S., (1978) Monopoly and product quality. *Journal of Economic Theory* 18: 301–317.

Veblen, T. (1899) *The Theory of the Leisure Class; an Economic Study of Institutions*, New York, Modern Library

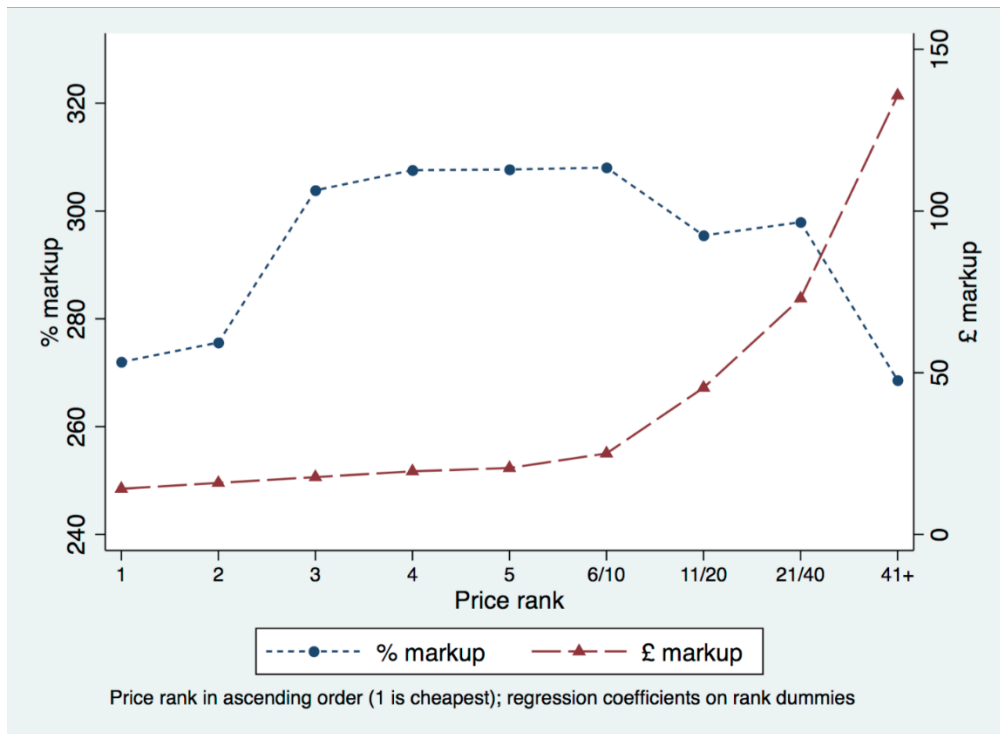


Figure 1: % and absolute mark-up over retail price by menu price rank

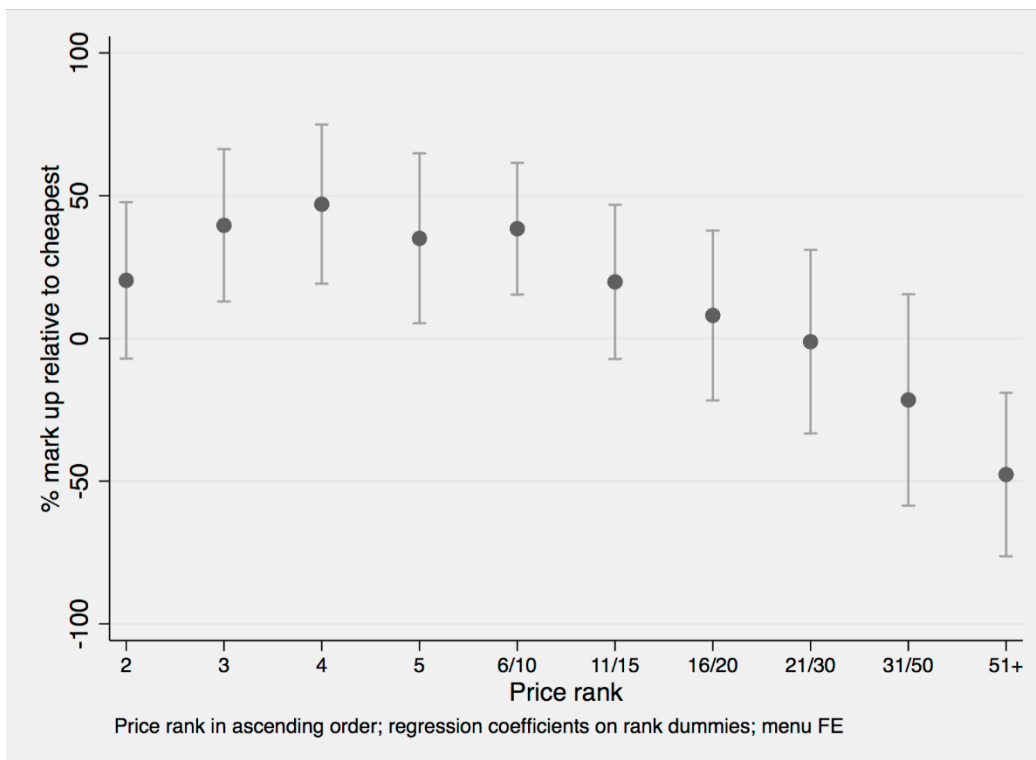


Figure 2: % mark-up regression coefficients on menu price rank dummies

TABLES

Table 1: menu and mark-up summary statistics

A. Menu Statistics				
	Red (235 menus)		White (235 menus)	
	Mean	Range	Mean	Range
Number of wines	14.65	1 – 98	12.31	1 - 70
Mean Price (£)	42.17	12.95 - 751.6	31.84	13.95 - 100.47
Cheapest wine (£)	19.35	8.5 – 59	19.15	8.5 - 45
Priciest wine (£)	152.22	12.95 – 7630	65.31	13.95 - 520
B. Mark-up Statistics				
	Red (2289 wines)		White (1884 wines)	
	Mean	Std Dev.	Mean	Std Dev.
% mark-up (margin/retail)	298.8	151.5	300.7	154.1
Absolute mark-up (£)	46.5	130.8	28.5	23.1
C. Mark-up Statistics for 2nd Cheapest				
	Red (128 wines)		White (122 wines)	
	Mean	Std Dev.	Mean	Std Dev.
% mark-up (margin/retail)	274.8	134.8	285.3	154.7
Absolute mark-up (£)	16.3	6.4	15.7	5.7

Note: The sample in Panel A comprises of the full set of 6335 wines listed on the 470 wine menus. The sample in Panel B comprises only the subset of wines that were matched to Wine-searcher.com. Panel C reports the mark-up statistics for 2nd ranked wines only. The number of 2nd ranked wines is less than the number of menus because the many wines do not have a match in Wine-searcher.com, and the match rate is lower at the cheap end.