Wine as a Long-Term Investment

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Among wealthy individuals, fine wine is a mainstream investment. According to a recent survey, about one quarter of high net worth individuals around the world owns a wine collection, which on average represents 2% of these collectors’ wealth. To satisfy increasing demand by investors, several wine funds have sprung up in recent years. In light of their long-standing yet rising status as an investment good, we examine long-term price trends in the market for high-end wines and how financial returns to holding them interact with changes in the convenience yield (i.e., non-financial or “psychic” return) over a wine’s life cycle.

We first present a model of wine price dynamics that explicitly accounts for the enjoyment from holding (rather than drinking) wine, building on Jovanovic (2013). The model predicts wine price growth close to the relevant discount rate when a wine is young, because the utility from storage is low at that time. However, once a wine reaches full maturity, it should appreciate at a lower rate due to the higher non-financial return that the owners of the remaining bottles receive. The model also implies a positive correlation between the market for wine and those for financial assets.

We next construct a historical database of prices of five long-established Bordeaux wines, namely the so-called “First Growths”: Haut-Brion, Lafite-Rothschild, Latour, Margaux, and Mouton-Rothschild. We consider two types of price information: transaction prices realized at auctions organized by Christie’s London, and retail list prices of Berry Bros. & Rudd, a London-based wine dealer. The data come from a combination of sources: archived catalogues and price lists, publicly available company publications and websites, and an external data provider. Our final database contains prices of standard-sized bottles for 9,260 combinations of sale year, château, vintage, and transaction type since the mid-19th century.

We use this unique dataset to disentangle time, vintage, and age effects in wine prices, and to shed light on long-term price trends in the market for high-end wine. The exact multicollinearity between year of sale, vintage

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year, and age prevents the estimation of a hedonic regression model that simultaneously includes dummy variables or linear terms for all three of these dimensions. We therefore parameterize the vintage effects by replacing the vintage year dummies with sets of variables that should capture the relevant variation in price levels across vintages. These variables pick up either differences in quality, yields, and aggregate prices between vintage years or temporal variation in wholesale prices and have substantial explanatory power in our hedonic models.

The coefficients on the age variables in our regression models imply that aging causes wine prices to rise at an average rate of 3.01%—3.73% per year over the first 50 years of the wine’s life. Prices stabilize thereafter, with the rate of aging-related appreciation close to zero between ages 50 and 70. The finding that financial returns decline dramatically after a wine reaches full maturity is in line with the predictions of our model. It also implies that the convenience yield on collectible wine (and high-end luxury collectibles more generally) is probably close to 3%. There is some evidence that prices start to increase once again as the wine becomes an antique, but at a lower rate than over the first five decades of its life.

We can use the coefficients on the time dummies in our hedonic model to construct a constant-quality price index in nominal GBP terms. Abstracting from the impact of aging, wine prices have risen by 8.32%—8.74% per annum, on average, between the end of 1932 and 2012. (We focus on the last eight decades of our time frame when evaluating investment performance because of lack of sufficient data in the years before.) This performance is similar to that of art and stamps – assets for which aging should have limited impact – over the same period. Our index shows a boom and bust in prices over the Second World War, and substantial price increases in the 1960s and over the last decade of our time frame. We find evidence of a positive correlation between the returns on wine and those for equities, in line with expectations.

To get an estimate of the total return to storing (young) wine over our sample period, we add the average price appreciation due to aging over the first five decades of the wine’s life to the constant-quality price index just described. This approach gives us a geometric average return of 11.93%—12.36% between 1932 and 2012. Wine has thus performed slightly better than equities over the sample period. However, it is important to keep in mind that systematically investing in wines older than 50 years would have brought lower profits than what is suggested by the index of total returns. Moreover, insurance, storage, and especially transaction costs may lower the relative performance of wine investments.