Guns, Butter or Wine

The Economic Outlier of the Wine Industry

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To launch the proceedings with a bit of controversy, I would propose that apart from micro attributes, wine economics is an oxymoron, there being no discernible economic principles governing the fine wine business. OK, with that, we can all adjourn and go to the beach. But then, seeing as we have a room full of economists here, that might spoil everything. So, we'll soldier on. First off, when I define wine in the following remarks, I am generally referring to ultra-premium offerings ranging from say, $40 a bottle to trophy wines commanding hundreds if not thousands of dollars. Second, when I refer to the non-economic interests of producers, I am speaking of New World entrants, primarily those in the United States. European producers most often have owned their holdings for generations and have thus amortized the investment many times over or, in the case of corporate buyouts primarily in France, shareholder accountability dictates some measure of financial responsibility.

The seminal problem is that too many people enter the business for non-economic reasons ranging from getting bored with their sailboat to not having enough money to buy a baseball team. I sum this up as having more dollars than sense. That said, I must confess to my own shortcoming here as I explain my profession as not having paid attention on Career Day. One sunny day late last summer, I was talking to a senior lender at Bank of the West. He asked my opinion about harvest prospects. I replied, ‘Well, if the next six weeks are like today, the harvest will be superb. On the other hand, if only the next four weeks are like this and then it starts raining, all bets are off.’ I reflected a moment and said, ‘So Roger, who’s dumber, you for lending the money or me for borrowing it?’

The non-economic irrationality of entering the business has routinely led to boom bust cycles all about the New World the past twenty-five years. For example, here in Oregon, recent investment growth has substantially eclipsed sales growth. Apart from the ‘Sideways’ year of 2005, Pinot Noir sales have increased at annual rates ranging from 2.4% to 5.4% since 2004 while Pinot Noir production has grown at a 30% annual rate. Simultaneously, the number of wineries has doubled from 193 to 370 in the same period—nearly one a week. On the other hand, as Ian Malone will soon tell you, California may be looking at a long-term shortage of grapes as the marginal utility of available land for vineyards declines.

In most boom bust cycles, vineyard over-production and winery over-capacity trace asynchronous sine curves where a surplus of fruit is followed by a wave of winery building to absorb that fruit until grapes lapse into shortage. This in turn drives up prices to make vineyard plantings attractive again. In Oregon, the growth of vineyard production and winery capacity has unusually remained in lockstep while overlooking the important detail of the market. As someone offering bulk wine said recently, ‘It turned out that my marketing plan didn’t match up with my production plan.’

I suppose that the foregoing cycle could constitute a cursory economic model. I say cursory in that it excludes many constituents that could have dramatically affected it and may do so in future cycles. For example, had Oregon crops been small in 2006 and 2007 and had the industry capitalized on the marketing windfall of Sideways, vineyards planted in the early part of the decade might have been impeccably timed. Similarly, looking ahead, the broad economy, currency exchange, weather patterns, changeable consumer tastes, discontinuities in distribution channels, regulatory changes and how late a particular wine critic stays out at night all contribute to deviate both short term and long term cycles. There is a bit of an uncertainty principle at work here where one cannot derive the future state of the industry from its immediate direction nor can one rely on history to forecast the approaching shorter term. These of course are the same variables that affect say the corn or wheat markets but with critical exceptions, the foremost being vintage.

There is no other commodity where vintage is a greater determinant of value. In the third Bordeaux 'vintage of this century', 2005 Latour retails for $1,950—not $19.50 but $1,950 a bottle—if you can find it. Put differently, the same money would buy 70 shares of Microsoft this morning. The average 2005 first-growth retail price was around $1,300. In the first so-called vintage of the century, 2000, the average price was $450 and in the second of 2003 it was $400. Meanwhile, while first-growth Bordeaux can't satisfy demand at unthinkable prices, 18 million liters—that's two million cases—of lesser Bordeaux wine was refined into ethanol because of the excess of supply over demand.

A friend refines gold in the Solomon Islands. Recently, she described her business model to me, which includes trying not to get killed by bandits and negotiating with tribal chieftains on remote South Pacific archipelagos. In truth, it makes a lot more economic and cultural sense than Bordeaux because after extracting the anecdotal peculiarities, one is left with market fundamentals in the bottom of the pan.

With respect to the inherent value of gold, it has been suggested that such wines will form a new gold standard as they become too costly to drink. Once a bottle is opened, it depreciates rather quickly as every wine, whatever the price, is metabolized into the same byproduct in a couple of hours. This presents an interesting valuation conundrum. Precious metals in their scarcity, utility and durability retain their intrinsic value as long as a culture values them (the over-mining of diamonds has reaffirmed the necessity of scarcity). However, trophy wines have only been so prized for a few years. 1959 or 1961 Latour (both comparable vintages to 2005) could have been purchased for five bucks a bottle or so at release. While we are quite unlikely to ever enjoy those bargains again, lots of people thought that tulips were worth gold in 1636 Holland. But even if collectors continue to convert their cellars to galleries, they can't get around the inherent entropy and ultimately, mortality of their possessions. It was one thing when a couple of bottles from Thomas Jefferson's cellar were authenticated or when the chilled stores of the Titanic were raised. It will be quite a game of investment musical chairs forty or fifty years hence in the umpteenth vintage of the century when some part of one million bottles of 2005 first-growth Bordeaux slide into senescence along with equal parts of other 'vintages of the century'. Think tulips.

While beyond the topic at hand, the Bordeaux frenzy is but one aspect of a broader pattern of vast accumulations of wealth all dressed up with nowhere to go. Even an expenditure of $1,000 per day on wine adds up to annual pin money for a surprising many, particularly as wealth concentrates exponentially in Asia, a destination for much first-growth production. I am reminded of a visit I paid to a tony New York restaurant where the sommelier recounted a story from the night before when an unpleasant patron ordered an $11,000 bottle of Romanée-Conti. Not wanting to part with the only remaining bottle to someone ordering it purely for swagger, the sommelier demurred that the wine really wasn't worth the price to which the braggart replied, 'I made $35MM before lunch today; now bring me the damn wine.' That kind of settles the argument.

Aside from vintage, grape variety carries a coefficient value virtually unsurpassed by any other commodity. One might prefer Gala apples or Fujis or Braeburns but they all still cost 99 cents a pound. There are pocket exceptions like Beluga caviar, Kobe beef and Copper River salmon but these contain a brand component equal to variety. Wine grapes observe a hierarchy nearly as fixed as that of angels although with Sideways, Pinot Noir moved up from the Dominions to the Cherubim while Merlot suffered a Miltonian fall. Along the way, Cabernet Sauvignon has mystically attained a pedigree unsurpassed in price by any other American wine, a remarkable achievement since, until its California apotheosis, it served only as a blending grape…and still does for the most part. I've always said that the Bordelais did not blend all these centuries because they were bored.

Apart from the effects of vintage and grape variety, the structural difficulty of developing a macroeconomic model or even regional models for fine wine is attributable to the almost powdery fragmentation at every link of the chain—production, import/distribution and consumption. Even those of us who earn our living making wine in Oregon regularly profess not to have heard of wineries in our backyard. At the importer level, twenty years ago a handful of large houses solely dominated the trade. While they still do proportionately, the advent of the Internet, frequent flyer miles, and email has made it possible for one to set up shop in Aspen, Sea Island or a Stockholm apartment and indulge a penchant for international travel as an importer for heretofore unheard of brands. As for distributors, Oregon alone charts 47. Entry barriers are negligible and the sheer number of brands—5,500 in the U.S. at last count perpetuates fragmentation. In the store, given the bewildering array of offerings, the most avid connoisseur is hard-pressed to be informed about more than five to ten percent of what is on the shelf.

Fifty years ago, this was not the case in America. The number of domestic wines numbered dozens, not thousands. Imported wines were limited to the great growth denizens, the prestige Champagne houses and a few middle market behemoths such as Barton & Guestier and Mouton-Cadet. If you wanted coffee, your choices were Folgers, Maxwell House, MJB, Hills Brothers and Chase & Sanborn with the good news that a cup cost a nickel. The bad news was that it all tasted terrible. Exotic chocolate was Cadbury's or a Whitman's sampler but on most occasions Hershey's or Nestlé would do. Cheese was made in factories, varieties countable on two hands with fingers left over. Our national bread was Wonder, supplemented by monolithic metropolitan bakeries.

Ironically, the consumer world we live in today shares more in common with artisanal Europe than Ozzie and Harriet America. Where this country's reigning industrial contribution was the diffusion of efficient mass production, in the past quarter century that standard has steadily reverted to the European craft model which began with the medieval guilds. Today, despite the ubiquitous presence of Starbucks, hundreds if not thousands of small, independent coffee roasters have proliferated across the U.S. Where New Yorkers had a choice between Dunkin' Donuts or Chock Full o'Nuts for a quick morning cup of coffee in 1950, there are probably few towns of 5,000 people in America today without their signature two dollar latte coffee shop. There are at least half a dozen artisan chocolatiers within five miles of where you sit and upscale groceries offer a panoply of nationally branded designer chocolates. Cheese has fermented to support independent shops and crusty bread is a commonplace. Even off the line automobiles may be customized to a degree. Supply and demand does work in perverse ways as well.

My father was an avid fisherman when I was a child, as much for food as for sport. More than once I was heard to complain at the table, 'Steelhead again?'

However, these everyday luxuries as well as more extraordinary ones such as Hermes scarves, Prada shoes, Kiton suits, and Lamborghini sports cars submit to reasonably predictable supply and demand models subject to stochastic variables with finite ranges. Not so wine. While *consumers* of other luxury goods may not always display rational behavior in making their purchases—as Elliot Spitzer will attest—the producers of these goods do, managing their output to what the market will bear.

To be sure, vineyard and winery owners contort supply and demand with ill-timed investments sparked by life style or hobby desires, ego, a job for a deadbeat kid or other intemperate economic reasons, including real estate speculation.

More perplexing, however, is the institutional problem of the random variable of harvest yields being so widely dispersed and so heavily weighted as to make it improbable to construct any single predictable model until after the fact. Moreover, vineyard plantings are not fully productive for four years and thus must impossibly anticipate not only supply and demand for the region and the grape variety but the economy in its broadest sense. Early on at A to Z, growers told us that we would have to take excess Pinot Noir if we wanted Pinot Gris. Then, a couple of years later, Sideways came along and Pinot Noir was as hard to find as a Keynesian at the Cato Institute.

Further compounding the problem is the paucity of data available to wine. I recently attended a 37 vintage retrospective of a retiring winemaker. While a 37 vintage career with all of its variables in wine is extraordinary, it also constitutes much of the history of modern New World winemaking. I remember Robert Drouhin remarking in the summer of 1991 that if the Burgundy harvest were to be successful that it would be the first time since the 15^{th} century that Burgundy enjoyed four good harvests in a row. What was most remarkable to me was not the unlikelihood of four consecutive good harvests but the fact that such institutional knowledge existed.

On the other hand, a foreign currency trader dealing with a global array of variables probably makes 37 forecasts in three months. Out of that, patterns emerge that permit one to make reasoned forecasts on correlative variables that in aggregate are rather narrowly dispersed. Wine does not know this luxury. As we anticipate harvesting six weeks from now, no reasonable person would bet his house on the outcome, yet we all do, year in and year out.

It would be a little nihilistic to say thank you and sit down now. So, given the unchangeable obstacles inherent to the business, what tools might be forged to cultivate better forecasts? In a way, I mislead you by defining ultra premium wines as over $40 as opposed to the standard definition of over $15. In reality, 80% of all wine sold in the world retails at $10 or less. Competing more on price than differentiation, those wines can be expected to roughly adhere to the tenets of other agricultural commodities—the production vagaries of the vast vineyards of Western Australia and the Central Valley are economically regarded little differently than that of the Corn Belt while the downstream market is relatively indifferent whether YellowTail or Gallo produces a million cases more or less.

Of the 20% of wines retailing for more than $10, it can be surmised that the lion's share are still under $20 and will still submit to more generic analyses albeit to a lesser degree. Leaving out the miniscule trophy wines, the analytical tools potentially most germane to Oregon and in large degree, California relate to maybe 2 to 3 percent of the total market. While one might be prone to dismiss such a small sliver, it seems grist for original analytical work.

I'll open the floor to questions, recriminations and ridicule in a moment but first will have the temerity to suggest a methodology that might help shed light on serious investment decisions and subsequent operating forecasts. As I perused the quantitative articles in the Journal, it struck me that regression analyses—as far as my questionable math skills will ferry me in your papers—tended toward single dimension solutions. Going back to the wide dispersion of two key variables, harvest quality and yield, it might be more fruitful to study the peculiarity of wines that are neither completely commodity nor luxury driven in terms of risk adjusted correlations that generate weighted aggregate outcomes. In other words, if we could look at an array of quantitative possibilities we might be better able to interpolate particular forecasts.

Another application, relative to the inexorable narrowing of distribution channels, could be a linear programming model to quantitatively assess the optimal allocation of marketing assets to particular markets given the number of channels, their breadth, the number of similar (and dissimilar) competitors, fragmentation of end channels, etc. For instance, what is the weighted effect of price control in Ohio, state control in Pennsylvania or limited on-premise markets in New Jersey?

At the direct sales level, the sheer proliferation of wineries and wine clubs has made direct sales marginally more expensive to capture. While seemingly wine's Holy Grail, a rigorous analysis of the marginal cost of generating those sales might direct new entrants to creatively develop other market opportunities. After the New York shipping bill passed, wineries waited for their forty virgins to show up at the door, forgetting that the only thing that happened was that the business had been reconfigured for everyone and that there weren't enough virgins to go around. Opportunity does not necessarily confer success.

In an industry where projections are too often derived from wished for or necessary outcomes, the introduction of such analytical discipline would ironically encounter detractions of theoretical soft science. However, as the investment and competitive stakes of the business mount, there will be a growing acceptance of reasoned analysis to make decisions and this is where you all can make a substantial contribution.