

Is the World Overflowing with Wine?

The Global Context for California Wine Supply and Demand

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Wine consumption is shifting from southern Europe to less traditional wine regions while production is also shifting, but more slowly. Projections suggest leveling of per capita consumption, but major regions, such as the Middle East will continue to be largely outside the wine world.

To set the stage for the regional perspectives to follow, this article provides an overview of the situation and outlook for wine that affect all regions and may be particularly crucial for California. Here I review recent production and consumption patterns in order to better understand how the future is likely to evolve. I also use simple statistical projections of consumption that can be the basis for considering more complex changes likely to occur over the next few decades. Finally, I consider some supply and demand drivers and additional factors that are likely to influence how wine markets evolve.

One of the most interesting features of wine markets is the differentiation by product characteristics and price. A first step to getting our bearing in the world of wine, however, is to consider wine markets in aggregate without breaking down the numbers by price grouping, variety, or other specifics. We know that not all wine markets move together, but getting a sense of the aggregates will provide a background to discussions of the markets differentiated by product characteristics.

For the past few decades the main trends in the world of wine have been the continued rapid decline in wine consumption in the traditional producing and consuming countries of Europe, especially the big three—France, Italy, and Spain. Over the same period, production in those countries has also been steady or declined as well. These trends matter because the world of wine continues to revolve around what happens in the big three, which produce about half and consume about 30% of all the wine in the world.

Table 1 shows the top eight wine-consuming nations and the top seven producers. These countries account for about two-thirds of production and almost two-thirds of consumption. The United States is the number three consumer, the number four producer, and is a small net exporter. Germany is a significant producer but a major net importer. Within Europe, the UK is a major consumer, but not a producer.

Among the consumers outside Europe, only the United States, China, and Argentina make the list. China, with a huge population, growing income, and a tradition of consuming alcoholic beverages, is the only nation outside Europe and the Americas to make the list of top consumers and producers. Just outside the list of top producers are significant wine producers with relatively small consuming populations, such as Australia, South Africa, and Chile, and significant European consumers and producers, such as Romania and Portugal.

Important questions for the future are where production and consumption are going over the next two decades. First, let us consider the trends on production over the past half century or so.

Production Patterns

Figure 1 shows that wine production in the big production nations of France and Italy rose through about 1980, before declining by almost half. Production in Spain and Argentina (not shown in the figure) grew during the 1960s and 1970s and, since then, has been variable. Over the same period, production has grown in the United States (steadily), Germany (in the early years), and China (especially in recent years). Production growth has also been rapid for the Southern Hemisphere exporters: Australia, Chile, and South Africa.

Table 1. Wine Production 2008¹ and Consumption 2007¹, by Country

Country	Production (billion liters)	Consumption (billion liters)
France	4.7	3.3
Italy	4.6	2.6
Spain	3.4	1.6
U.S.A.	2.3	2.1
Argentina	1.5	1.1
China	1.5	1.6
Germany	1.0	2.0
UK	(minor)	1.2
Total of listed countries	19.1	15.5
World	27.3	24.0
Share of listed countries	70%	64%

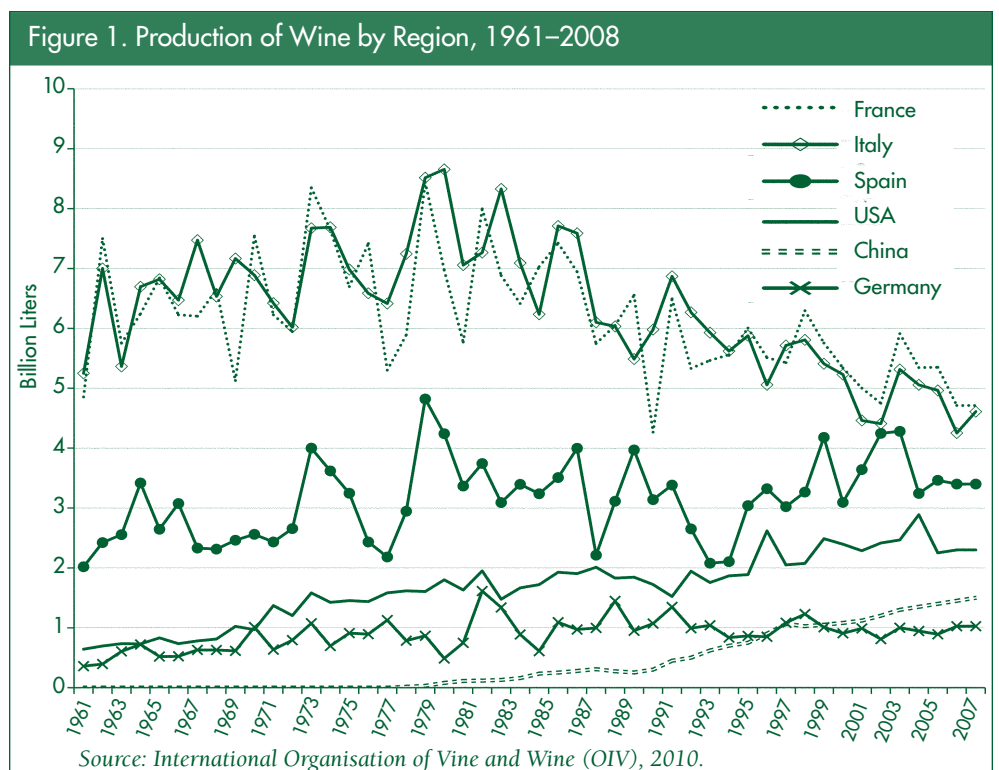
Source: FAOSTAT. 2010. <http://faostat.fao.org/site/636/Desktop/Default.aspx?PageID=636#ancor>.

¹ Latest available data.

Most production is of relatively low-priced wine that was typically consumed locally and now may be shipped in bulk for packaging in larger consumer containers. (See the next article by Anderson on page 6.) Behind these production trends have been prices that allowed production of winegrapes to be competitive with other crops, spreading of technology and knowledge of viticulture and enology practices, and expanding local markets outside traditional regions. In addition, in Europe regulations to curb production or production growth have affected the markets. (See the article by Montaigne on page 9.)

Demand Patterns

Figure 2 shows the trends in wine consumption for the past five decades (somewhat less for some countries), with time series projections to 2030. (China is not included in this figure because reliable historical data were not available.) The historical data show dramatic declines in France and Italy, with substantial declines over the past 40 years in Spain and Argentina (not shown in the figure) as well. France and Italy had very



high per capita consumption quantities of more than 110 liters per person that were simply not sustainable in a modern relatively urban society with adequate water sanitation and incomes.

At the same time that consumption was falling in southern Europe (on a per capita basis and overall since population grew little), consumption

was growing in Germany and the United Kingdom in Europe, as well as in the United States and other countries where wine had been much less important in the past.

The projections shown in Figure 2 are based on a simple model with a linear trend and weights such that more recent years are more important in the

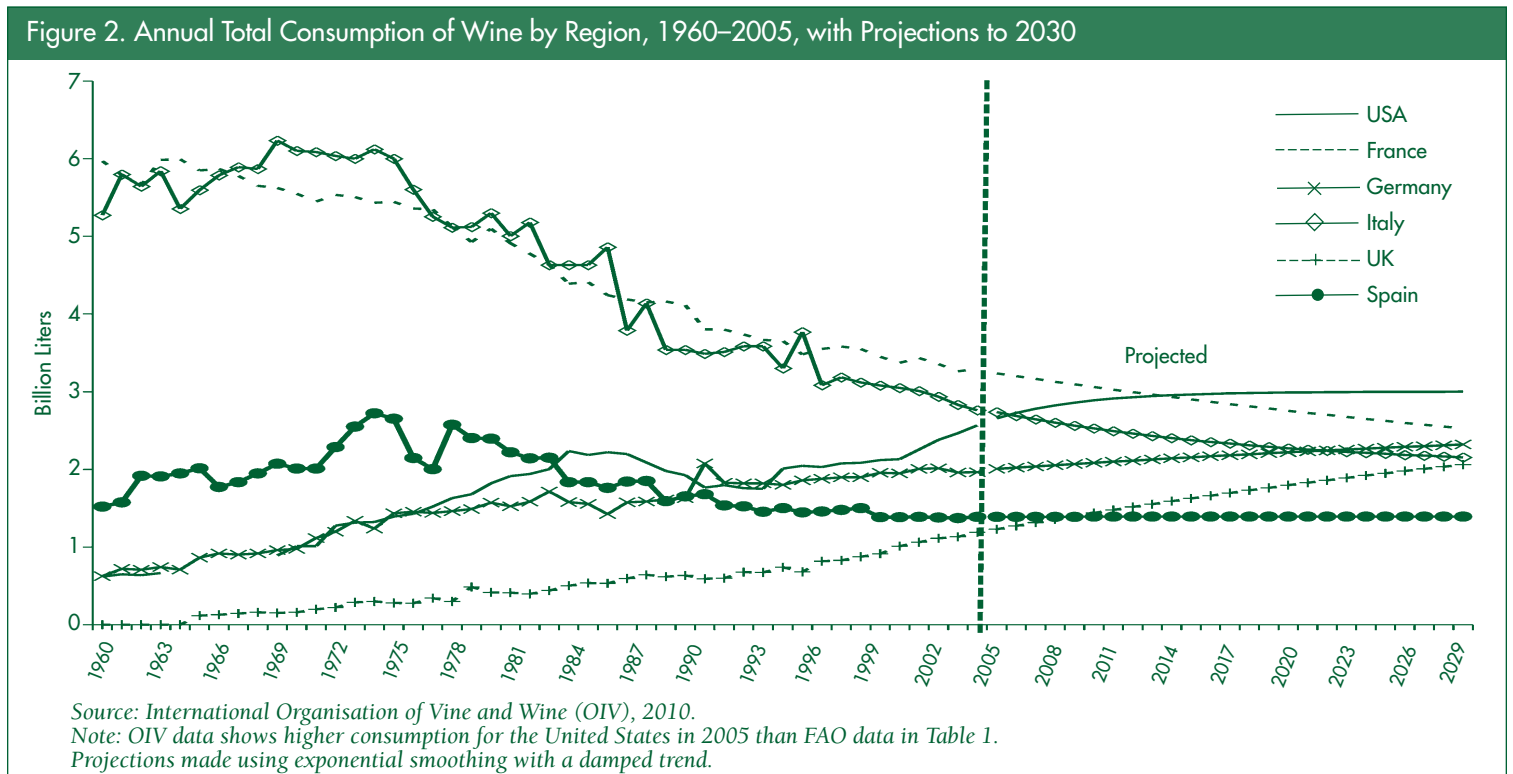
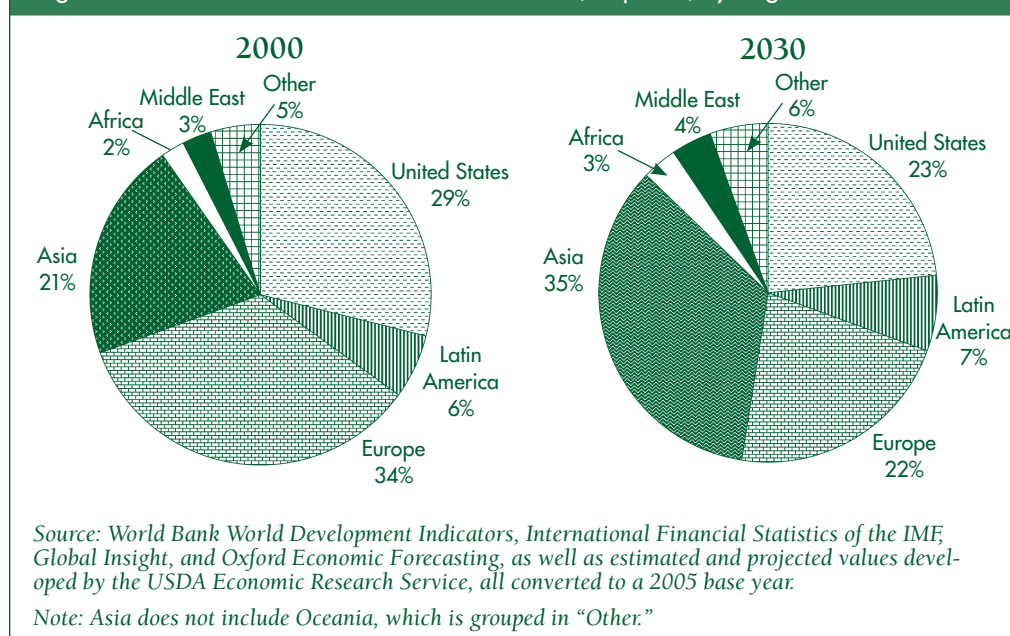


Figure 3. World GDP Shares in 2000 and 2030 (Projected) by Region



forecast. Parameters for the projection model are estimated from the consumption data for each country separately. The projections are for continued decline of consumption in Italy, France, and Spain but slowing of the rates of decline. At the same time, consumption is projected to continue to rise in the United States, the United Kingdom, and Germany. Given population size and growth rates, these projections have total wine consumption in the United States topping the chart by 2015.

Note that the OIV data indicate consumption in the United States of about 2.8 billion liters in 2007 compared to only about 2.1 billion liters according to the FAO. These projections use OIV figures because OIV data are more consistent with U.S. data on consumption from The Wine Institute.

Thus, if these simple projections hold, over the five decades from 1980 to 2030, the share of world wine consumption in southern Europe will have fallen from more than half to less than one-third of world consumption. The share in northern Europe and the United States will have risen from less than 15% to more than one-third. Moreover, China and some other important markets outside the scope of

these projections will have increased their share of the market as well.

Wine Demand Drivers

Behind these consumption trends are gradual changes in world population and incomes. Global population is projected to peak in about 2060 at just above nine billion people. Until then, almost all the population growth is projected to occur in the poor countries of South Asia, Africa, and the Middle East. None of these are significant traditional markets for wine.

For most food products, population growth signals substantial demand increase. World demand growth for wine will be increasingly limited if major parts of the globe remain outside the world of wine. Furthermore, while the population of the United States will continue to grow, the population of Europe, and especially the major wine-drinking regions, will begin to decline and shares of the elderly and very old will rise. These population trends by themselves imply that the share of the world's population that will be significantly engaged in the world of wine is likely to shrink. These population trends do not bode well for global wine demand.

The other broad driver of demand is income. As shown in Figure 3, Europe accounted for about one-third of world income in year 2000. The U.S. share was about 29% and the Asian share was about 21%. The other one-sixth of world income was in Latin America, Africa, and other regions.

By 2030 global income patterns will be very different. The Asian and European shares will reverse, the U.S. share will fall to about 23%, and there will be gradual increases in the income shares of the other regions. These income trends (partly driven by population) are significant for wine because it means that the most important wine-drinking parts of the world will shrink relative to other regions.

World wine markets may still expand as incomes grow gradually in traditional markets and wine consumption is introduced in other places with rapid population and income growth. However, in order to expand in proportion with world income growth, wine consumption must take an ever-increasing share of the budget in the slow-growing traditional markets or must significantly expand in less traditional markets. Some places with rapid expansions of aggregate incomes, such as South Asia, have tiny wine markets and little cultural base for expanding consumption. That is not to say that significant markets will not develop, only that it will be difficult to create a mass market for wine in these regions with little traditional base. (The Lapsely article, page 12, explores the role of core consumers in the U.S. market.)

Other markets, such as China, which also has a cultural affinity for wine consumption, will experience slow population growth but rapid per capita income growth. Because wine consumption is likely to be highly responsive to income increases in middle-income countries, these factors are conducive to rapid expansion of wine consumption and shifts towards higher priced wines.

Other Asian markets are more mixed. For example, in Japan, there is potential to increase the currently low per capita wine consumption, but income growth is projected to be slow. Conversely, in Korea, there is a potential for rapid demand growth because income growth and diet shifts are likely to be rapid and the base consumption is low in a country that has a tradition of alcohol consumption and increasing wine awareness.

Other Features of the Evolving World Markets for Wine

This article has explored trends that are likely to affect wine production and consumption globally. Many additional factors will also affect the characteristics of wines consumed and where those wines will be produced.

For example, wine regulation and taxation is changing in Europe and elsewhere. Modification of regulations on wine production may allow Europe to be more competitive as programs to remove low-priced wines from the market are relaxed. Taxation and regulation of wine consumption is driven partly by government revenue demands and partly by perceived social costs of alcohol abuse. As the role of government in restricting consumption expands, we may see reduced consumption among core consumers, which would require a broadening of the consumer base to maintain or grow aggregate demand.

Many interesting issues facing the global market for wine relate to product differentiation. Wholesale prices for wine range from less than one dollar per liter to more than \$100 per liter. Obviously, across this range, the products are really not the same and the discussion above has been most relevant to the low end of the price range, which accounts for the great bulk of wine volumes. Significant wine revenues are generated by higher-priced wine markets and those wines confront

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special issues of unique locations, climates, and marketing strategies.

Wines in the higher price ranges also compete in a global market, but the dynamics of that market are different from the market for the lower-end wines. Overall, income growth, especially the growth of per capita incomes of now middle-income consumers, will help determine the size of the global premium wine market. The other factor, of course, is the willingness of higher-income consumers to use some of their new incomes on wine—not as a beverage, but as a component of their luxury good consumption bundle. Given rising disposable incomes, increasing the acceptance of wine as a significant part of the high-income consumption style for new consumers is crucial for expansion of this market.

The expanding market for premium wines will be shared among competitors based on reputation. Reputations for quality, generated mainly by the origins of the grapes, are crucial for wines to compete successfully in the higher price categories. But, even within well-known regions, some districts and brands command substantial price premiums. Reputations evolve slowly and new regions or brands compete vigorously to establish themselves among those that capture price premiums.

Over the past few decades, some coastal parts of California, led by Napa, and a few places and brands in Australia, such as the Barossa Valley and Penfolds Grange, have been able to compete successfully with the elite wines

of France and Italy. Other regions, in such places as Spain, Argentina, Chile and less famous locations in California and Australia, claim to match the quality of the more famous places and brands. The evolution of reputations of non-traditional regions competing in the higher price categories (not just the elite prestige wines) will determine much of the economics of the overall wine industry in coastal California and many other places. Marketing efforts are important, but more fundamental is to create accepted wine characteristics that gain respect of influential critics and to reach this stage at costs consistent with competitors. While the markets are different, the challenges are therefore similar for both premium and basic beverage wines.

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For further information, the author recommends the following:

OIV. 2010. "State of the Vitivinicul-ture World Market OIV Report" and "Note on the World Situation." International Organisation of Vine and Wine. www.oiv.int/uk/statistiques/index.htm and http://news.reseau-concept.net/images/oiv_uk/Client/2010_note_conj_mars_tableaux_EN.pdf.