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Consumption is stable, production is up, prices are lower
and vineyards still sell at \$100,000/acre. Something's got to give...

Inside The Bottle: The Wine Business

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AND
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In the United States and around the world, wine production is up, per capita consumption is stable, and large wineries are buying small wineries. In the United States, some of the 2002 grape crop was not harvested because of low prices. Even so, Napa Valley vineyards continue to sell for over \$100,000 an acre.

Will the overall wine industry suffer from lower prices, or will the industry become more segmented with high-end North Coast producers profiting even as low-end San Joaquin Valley growers pull out their vines?

Wine is one of the world's oldest drinks. Production and consumption are concentrated in Europe, which produces about 74 percent of the world's annual output of 6 billion gallons — about one gallon for each of the world's six billion residents. The “Big Three” wine producers are France with 22 percent of world production; Italy, with 21 percent; and Spain, with 12 percent. The other European wine producers account for 19 percent of global wine production.

The United States is the world's fourth-largest wine producer, accounting for about eight percent of world production. Other major New World wine producers are Argentina, five percent; South Africa, three percent; Australia, two percent; and Chile, two percent. (We use the term “New World” here to denote a common wine style — fresh and fruity — and to denote the fact that these countries were settled primarily by immigrants from Europe.)

The “Dynamic Trio” among New World producers is made up of Australia, Chile, and South Africa. Together, they produce 10 percent of the world's wine, but have just one percent of the world's population. Nearly all of the wine they produce is exported.

Old World vs. New

A battle is fermenting between “Old World” European wine producers and “New World” wine producers in Argentina, Australia, California, Chile, and South Africa. In Europe, grape growing and wine making are fragmented industries. Thousands of grape growers, many

More Than Grapes

Wine grapes are a small fraction of the price of wine. It takes about 2.7 pounds of grapes to make a 750-ml bottle of wine. With grape prices at \$600 a ton, the value of the grapes in a bottle of wine is about 80 cents. One ton of grapes makes about 150 gallons, 62.5 cases or 750-750 ml bottles of wine. The best Napa Cabernet grapes are worth \$2,250 to \$4,500 a ton, or \$3 to \$6 a bottle.

with fewer than five acres of grapes, send their crop to cooperative wineries. The famous Chateaux that grow grapes and bottle wines with their own labels are exceptions.

Most European wines are made from a blend of several varieties of grapes, and the wine is labeled to reflect the region where the grapes were grown, such as Bordeaux or Burgundy. The quality and quantity of wine varies from year to year, so consumers must use "vintage charts" to determine the best wines.

In the New World, grape growing and wine making are often integrated operations. Wine grapes are grown by or for the vintner according to contract specifications aimed at affecting the taste of the wine.

The New World vintner's goal is to produce a uniform taste through the entire production run. The first and the 1,000th bottle of a Chardonnay, for example, from one winery must taste the same. The "fresh and fruity" New World wines are preferred by many consumers in countries that do not produce much wine, such as the UK.

A new era in wine production began on May 24, 1976, when Napa Valley red and Napa Valley white wines were judged "best" by French critics at a blind tasting in Paris. European recognition of the quality of California wine, combined with the growing American taste for wine and U.S. farmers' ongoing search for profitable crops, encouraged a substantial expansion of U.S. wine grape acreage. Every state in the U.S. grows grapes and produces wine, but more than 90 percent of the nation's wine grapes are grown in California, a state with over 90 viticultural areas.

California has four major grape growing regions: the North Coast (Napa-Sonoma), Central Coast (Monterey to Santa Barbara), Northern San Joaquin Valley (Lodi/Woodbridge), and the central and southern San Joaquin Valley. It costs \$15,000-20,000 to develop an acre of wine grapes on relatively level land, and three years must pass before the vines yield fruit. The major variable in grape production is the cost of land, which ranges from \$5,000 to \$10,000 in the San Joaquin Valley and the Central Coast to \$50,000 to \$100,000 in the North Coast region.

Grape prices vary enormously from area to area. Napa Chardonnay grapes may sell for \$2,300 a

ton, ten times the price paid to growers in Madera county for Chardonnay grapes.

In 2001, California growers received an average of \$553 a ton for white grapes, including \$845 per ton for Chardonnay. Red grapes brought \$678 per ton including \$1,048 per ton for Cabernet. There was a huge variance among prices, even for the same grape variety. For example,

Cabernet grapes in Napa County sold for an average of \$3,700 a ton. The same variety sold for \$285 per ton in the Fresno area. Most of California's wine grapes are produced in the southern San Joaquin Valley where many growers produce the multi-purpose Thompson Seedless grapes, which can be used for table grapes, raisins, or bulk wine. Prices for multi-purpose grapes have fallen sharply as Americans have shifted to varietal wines made from Merlot, Cabernet, Zinfandel, or Chardonnay grapes.

Wine production is a rapidly consolidating business, especially in the New World, reflecting the consolidation of supermarkets and discounters that sell half of U.S. wine. The 50 largest U.S. wineries produce about 90 percent of all U.S. wine. Gallo, the largest U.S. winery, accounts for about 40 percent of U.S. wine production. Wineries like Gallo lay claim to shelf space by offering retailers a portfolio of wines, from mass market to super-premium.

Most of the 2,150 U.S. wineries are very small, and sell their production to visitors who come to the winery to taste the wine. Recently, Gallo bought Louis Martini, a premium Napa Valley

Table 1- Wine Production and Consumption, 1961-99

Share of World Production	1961	1969	1979	1989	1999
France	24%	18%	22%	22%	22%
Italy	26%	27%	22%	21%	21%
Spain	10%	9%	13%	11%	12%
US	3%	4%	4%	5%	6%
Rest of World	37%	42%	39%	41%	39%
World Total (mil hectoliters)	202	270	378	283	280
Per Capita Consumption (liters)	1961	1969	1979	1989	1999
France	126	112	93	74	60
Italy	108	114	90	62	54
Spain	53	63	65	41	38
USA	4	4	7	8	8

Source: Anderson, K. and D. Norman Global Wine Production, Consumption & Trade, 1961-1999
<http://www.adelphi.edu.au/cies/winepubs.html>

winery. After the sale, the founder's granddaughter, Carolyn Martini, remarked that the 140,000 case-per-year winery was sold because, "you must be either very large or very small [in the wine business]. Unfortunately, we were neither."

Wine Consumption: Less but Better

Europeans drink much more wine than Americans do. France, Italy, and Spain, with 155 million people or 3 percent of the world's population, produce 55 percent and consume 45 percent of the world's wine — an average of 55 to 60 liters of wine a year per resident. Americans, by contrast, consume an average of eight liters each year. Wine consumption has been falling in European countries and rising slowly in the United States.

U.S. retail wine sales were \$20 billion in 2000. The most common wine classification system groups wines by their average retail price:

- ◆ **Ultra-premium wines** are those with retail prices of at least \$14 a bottle. Prices are determined by scarcity and ratings, such as those provided by Robert Parker or the *Wine Spectator*. If Robert Parker gives a wine a rating of 95 or more, it sells out; a rating of 85 or less means the wine does not sell.
- ◆ **Super-premium wines** cost \$7 to \$14 a bottle. They are often made from one variety of grapes, such as Cabernet, Merlot, or Chardonnay. In the U.S., Super and Ultra-premium wines make up one fourth of volume sold, and generate half of all wine revenues.

Table 2: California Winegrape Acreage, Production and Price, 1982-2001

	1982	1991	2001	change 1982-91	change 1991-2001
North Coast: Napa, Sonoma, Lake, Mendocino counties					
Winegrape Acreage	71,349	84,086	122,444	18%	46%
Winegrape Crush (tons)	251,600	347,400	383,000	38%	10%
Share of Total Crush	12%	17%	13%	36%	-21%
Price/ton (\$)	621	1,046	2,219	68%	112%
Grower receipts (\$1,000)	156,244	363,380	849,877	133%	134%
Central Coast: Monterey to Santa Barbara counties					
Winegrape Acreage	54,152	49,854	86,501	-8%	74%
Winegrape Crush (tons)	165,200	195,200	407,400	18%	109%
Share of Total Crush	8%	10%	14%	16%	49%
Price/ton (\$)	460	749	1,240	63%	66%
Total Receipts (\$1,000)	75,992	146,205	505,176	92%	246%
Central San Joaquin: Lodi-Woodbridge area					
Winegrape Acreage	80,791	73,111	114,765	-10%	57%
Winegrape Crush (tons)	493,400	519,600	797,700	5%	54%
Share of Total Crush	24%	25%	28%	5%	9%
Price/ton (\$)	150	240	390	60%	63%
Total Receipts (\$1,000)	74,010	124,704	311,103	68%	149%
Southern San Joaquin					
Winegrape Acreage	140,474	108,076	142,463	-23%	32%
Winegrape Crush (tons)	1,109,000	989,300	1,290,000	-11%	30%
Share of Total Crush	55%	48%	45%	-12%	-7%
Price/ton (\$)	143	157	185	10%	18%
Total Receipts (\$1,000)	158,587	155,320	238,650	-2%	54%

Source: www.nass.usda.gov/cal/ Grape Crush Report.
These four areas account for 98-99 percent of California winegrapes

Table 3: U.S. Retail Wine Sales, 1991-2001

Wine Categories	Retail Price/ Bottle	Cases Sold (millions)					
		1991	1995	1998	1999	2000	2001
Ultra-Premium	Over \$14	2.4	3	5.5	10.1	14.4	14.8
Super-Premium	\$7 to \$14	7.1	10.1	21.4	24.5	24.5	26.4
Popular-Premium	\$3 to \$7	28.1	34.5	48.1	49.5	52.6	51.3
Jug Wine	Below \$3	69.2	69.4	67.8	65.7	55	52.6
Total-12-bottle cases		106.8	117	142.8	149.8	146.5	145.1
Percent of Total Cases Sold							
Ultra-Premium	Over \$14	2%	3%	4%	7%	10%	10%
Super-Premium	\$7 to \$14	7%	9%	15%	16%	17%	18%
Popular-Premium	\$3 to \$7	26%	30%	34%	33%	36%	36%
Jug Wine	Below \$3	65%	59%	47%	44%	37%	36%

Source: Selected Gamberg-Fredrickson Reports

- ◆ The so-called “fighting varieties” or popular-premium wines are made from one variety of grapes, but are less expensive. They cost \$3 to \$7 a bottle and are a specialty of wine makers in Australia and Chile.
- ◆ Jug wine generally costs less than \$3 a bottle, and is often sold in bottles larger than 750 ml.

Whither Wine?

Wine grape production has been increasing while overall wine consumption has remained stable. At the same time, wine drinkers are shifting from jug wine to fighting varieties, fighting varieties to premium, and premium to ultra premium brands. Some analysts have looked at overall supply and demand conditions and have predicted that a wine glut “of historic proportions” is about to begin.

Barron’s financial newspaper agrees, saying that wine production is rising 4-5 percent a year, consumption is rising at less than one percent per year and concluding “the basic laws of supply and demand guarantee that the coming glut will have a depressing effect on retail wine prices.”

More optimistic analysts predict that the American trend toward higher quality wines will continue as the educated and affluent baby boom generation ages. They emphasize that the apparent slowdown in wine consumption in 2001-02 may turn out to be a short-term reaction to recession and the decline in tourism after September 11. The optimists concede that the market for low-priced table wines seems to be shrinking, but they note that overall wine consumption can decline while wine revenues rise as wine drinkers shift to better wines. The optimists’ case rests on the growing number of educated wine drinkers. Pessimists often stress how little consumers know about wine by repeating the story told by

Ernest Gallo, who went to New York City to sell wine after Prohibition ended. He poured two glasses of wine from the same bottle. The buyer sampled the first glass, and asked the price. Gallo responded, “Five cents a bottle.” The buyer sampled the second glass, and asked its price — Gallo responded, 10 cents a bottle. The buyer said, “we’ll sell 10 cent wine.”

Longer term, the near universal use of improved technology in grape growing and wine making is narrowing the gaps between the quality of wine grapes and wines produced in different areas. This should narrow the spread among grape and wine prices so evident in the 1990s. This leads to three predictions. First, grape and wine production will fragment to match the fragmentation of consumption. Producers of multi-purpose, low-priced grapes are most likely to be pushed out of the wine market. This means that wine is increasingly likely to be made from wine grapes, not multipurpose grapes.

Second, wineries will get big or small: big enough to offer a portfolio of wines and to be guaranteed shelf space, or small enough to sell their wine to visiting tourists, with the Internet serving as a backup sales channel.

Third, it may be difficult to make a profit producing grapes or wine as the industry restructures. As one saying goes, the first wine miracle was the Biblical transformation of water into wine. The second wine miracle will be making a consistent profit from wine.

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