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Alcohol and the Economy

U. S. Alcohol Drinking rate at 25-Year High

A Gallup survey released in the summer of 2010 indicated that 67 percent of Americans drink alcohol, the highest percentage recorded since 1985.¹ Is there some kind of statistical relationship between alcohol consumption and economic growth? Do people drink more during recessions and associated periods of high unemployment rates?

Do We Drink More During Recessions?

To answer this question, this article reviews long term and short term trends in alcohol consumption and analyzes changes before and during the recessions we have had since World War II.

According to Gallup:

Despite some yearly fluctuations, the percentage of Americans who say they drink alcohol has been remarkably stable over Gallup's 71 years of tracking it. The high point for drinking came in 1976-1978, when 71 percent said they drank alcohol. The low of 55 percent was recorded in 1958. When Gallup first asked Americans about drinking, in the waning days of the Great Depression in 1939, 58 percent of adults said they were drinkers.

Gallup reports also note that the percentage of Americans who say they drink alcohol has been in the low 60s fairly consistently since 1947.

Gallup Data Show Alcohol Use Unrelated to Recessions

Based on these data, it would appear that prior to 2010 there was little, if any relationship between the percentage of people drinking and economic conditions. The economy was not in a recession during the 1976-1978 period, when the highest percentage of adults defined themselves as alcohol drinkers (71 percent). In fact, the economy was growing rapidly, with real gross domestic product (GDP) increasing an average of 5.2 percent per year during this three-year period. This is well above the 2.9 percent average annual growth rate experienced by the U.S. economy since 1945. The economy was in a recession from August 1957 through April 1958, about the time of the lowest percentage of adult drinking in Gallup's records (55 percent).² If anything, these extreme points in the Gallup poll results seem to indicate that people drink more when the economy does well and drink less when the economy is in recession.

Other Measures of Alcohol Consumption

Polls such as those done by the Gallup Group measure how prevalent drinking is. Other measures indicate how much alcohol is consumed. These include ethanol (pure alcohol) content, gallons of liquid by type of product, and spending in dollars.

Health and Human Services Alcohol Surveillance Reports

The U.S. Department of Health and Human Services (HHS) periodically does surveillance reports of state and national alcohol consumption in terms of gallons of ethanol content of beer, wine, and distilled spirits per capita for those over age 14. Sources of data include state government revenue agencies and various industry sources. The most recent HHS report has these annual data from 1934 through 2008.³ The data show no obvious correlations with recessions. For example, in 2001 (the most recent recession covered by these data) total U.S. ethanol consumption from beer, wine, and distilled spirits was 2.18 gallons per capita, the same as 2000 (the year before the recession started).

Alcohol Consumption Rising Since 1998

The HHS data show that total U.S. ethanol consumption reached its most recent low point in 1998, at 2.14 gallons per capita. It has been slowly trending upward since then, reaching 2.32 gallons per capita in 2008. As shown in Chart 1, wine and distilled spirits were responsible for the increase in U.S. per capita consumption from 1998 to 2008.

Lowest and Highest Alcohol Consumption

The lowest U.S. total ethanol consumption since the end of World War II was 1.96 gallons per capita in 1954 (a recession year, with a recession running from July 1953 through May 1954). The highest consumption was 2.76 gallons per capita in both 1980 and 1981 (both recession years, each with six-month periods of recessions).

¹ "U.S. Drinking Rate Edges Up Slightly to 25-Year High," July 30, 2010, www.gallup.com

² The source of all recession data referenced in this report is the National Bureau of Economic Research, "U.S. Business Cycle Expansions and Contractions," www.nber.org

³ *Apparent Per Capita Alcohol Consumption: National, State, and Regional Trends, 1977-2008* (LaVallee, Robin A., Yi, Hsiao-ye) August 2010, U.S. Department of Health and Human Services, www.niaaa.nih.gov

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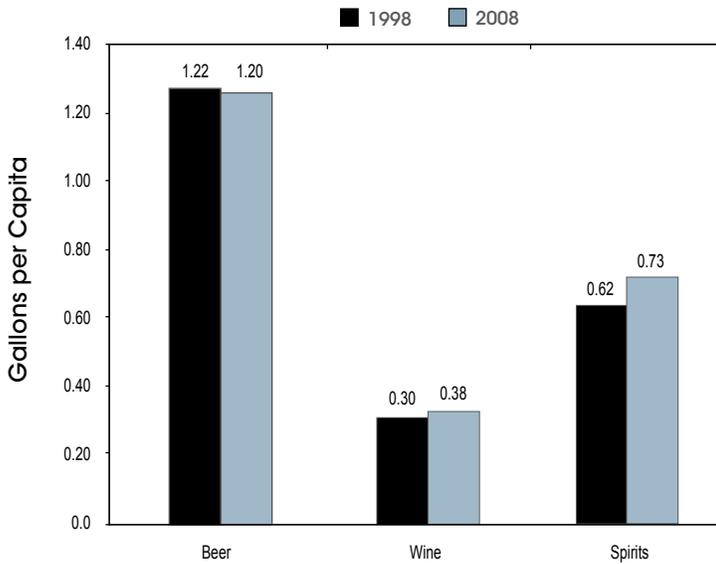
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Chart 1
U.S. Per Capita Ethanol Consumption by Type of Product in 1998 and 2007



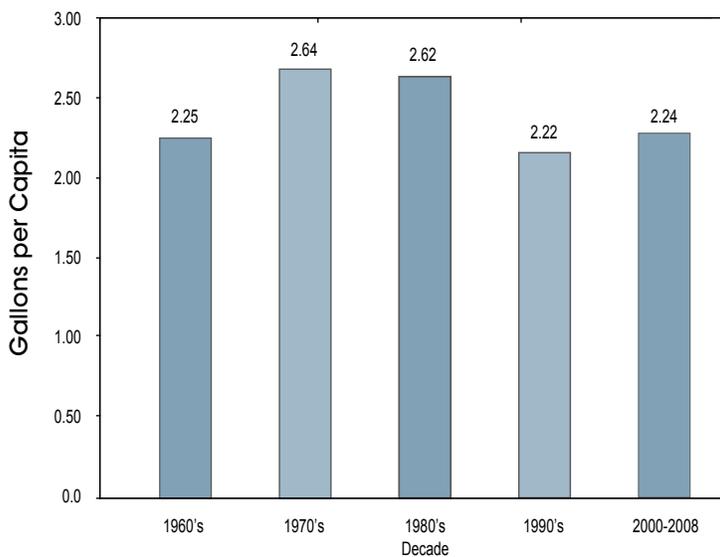
Averages for Decades

Average total U.S. ethanol consumption per capita is tabulated by decade in Chart 2 to track long-term trends. As shown in the chart, average ethanol consumption per capita for the first nine years of the first decade of 2000 was similar to that of both the 1960s and the 1990s. The recent decades with the highest consumption were the 1970s and the 1980s.

California Alcohol Trends Similar to Nation

The HHS report has surveillance data for states from 1977 through 2007. The data show that California alcohol consumption has generally followed national trends in the last 20 years. California per capita consumption, like the U.S., reached a low point in 1998, then started gradually trending upward.

Chart 2
Average Total U.S. Ethanol Consumption Per Capita by Decade



Quarterly Bureau of Economic Analysis Alcohol Spending Data

The data examined so far are annual figures. Annual data have their limitations in analyzing relationships to recessions, since recessions rarely cover exactly one calendar year. Quarterly data would be much better suited to such an analysis.

The U.S. Bureau of Economic Analysis (BEA) has quarterly data for on-premises (primarily restaurants and drinking establishments) and off-premises (packaged liquor, typically for home consumption) alcohol spending. The off-premises data is broken out into spending on beer, wine, and distilled spirits.

BEA Data Compared During Recessions

Board of Equalization Research staff converted the BEA alcohol expenditures data into inflation-adjusted dollars using the consumer price index for all alcohol spending from the Bureau of Labor Statistics. We compared these real alcohol spending figures with National Bureau of Economic Research data for starting and ending months of recessions. Research staff defined a quarter as being in a recession if two months or more were in the recession. We calculated average quarterly growth rates of alcohol spending for the four quarters⁴ prior to each of the seven recessions the U.S. has had in the last 40 years. To calculate growth, we calculated the change from four earlier quarters. We then compared these growth rates with average quarterly growth rates during each of these seven recessions.⁵

The results of these tabulations are shown in the table on the next page. For each recession, the first column of data shows the pre-recession average growth rate, the second column shows the average growth rate during the recession, the third column shows the difference between the pre-recession and recession growth rates, and the fourth column categorizes the difference during the recession as “higher, lower or similar” growth rates.⁶

Likely Responses During Recessions

Some ways economists would expect consumers to react during recessions are listed as follows: First, total alcohol consumption per capita may fall during the recession, as consumers would have less income to spend on alcohol. Second, consumers may substitute less expensive brands of alcohol for more expensive brands or less expensive ways to consume alcohol for more expensive ways, such as more off-premises consumption (and less on-premises consumption) during recessions. Third, consumers may change the kind of alcohol they drink, for example switching from distilled spirits to less expensive alternatives such as beer. The fourth response, based on psychology more than economics, would be that consumers “drink away their sorrows,” and increase alcohol consumption during recessions.

⁴ For example, the U.S. economy was in recession all four quarters of 1970. For the pre-recession period of the 1970 recession, we calculated growth from each quarter of 1969 compared to each quarter of 1968. We then averaged growth for the four quarters to determine the pre-recession growth rate.

⁵ Recessions varied in length from two quarters in the 1980 recession to six quarters in the 1973-1975, 1981-1982, and 2008-2009 recessions.

⁶ Similar growth rates are defined as being within one percent of the pre-recession growth rate.

Changes in Real U.S. Spending on Alcohol Four Quarters Before Recessions and During Recessions Since 1970

	Before Recession	During Recession	Difference	Change
Starting Year and Quarter of Recession: 1970, Q1				
Off-Premises	7.9%	6.7%	-1.1%	Lower
Distilled Spirits	9.1%	1.5%	-7.7%	Lower
Wine	7.6%	15.4%	7.8%	Higher
Beer	7.0%	9.6%	2.6%	Higher
On-premises	0.3%	5.7%	5.4%	Higher
Total Alcohol	5.1%	6.4%	1.3%	Higher
Starting Year and Quarter of Recession: 1973, Q4				
Off-Premises	4.6%	2.4%	-2.3%	Lower
Distilled Spirits	7.4%	-1.0%	-8.5%	Lower
Wine	6.6%	5.8%	-0.9%	Similar
Beer	2.0%	4.5%	2.5%	Higher
On-premises	8.9%	0.2%	-8.7%	Lower
Total Alcohol	6.0%	1.6%	-4.4%	Lower
Starting Year and Quarter of Recession: 1980, Q1				
Off-Premises	4.4%	6.0%	1.7%	Higher
Distilled Spirits	-6.3%	-3.9%	2.4%	Higher
Wine	18.9%	19.6%	0.7%	Similar
Beer	8.1%	8.5%	0.4%	Similar
On-premises	5.5%	2.0%	-3.5%	Lower
Total Alcohol	4.7%	4.6%	-0.1%	Similar
Starting Year and Quarter of Recession: 1981, Q3				
Off-Premises	0.4%	2.4%	1.9%	Higher
Distilled Spirits	-12.2%	-11.1%	1.1%	Higher
Wine	11.9%	12.4%	0.5%	Similar
Beer	4.0%	5.2%	1.2%	Higher
On-premises	1.3%	-1.5%	-2.7%	Lower
Total Alcohol	0.7%	1.0%	0.3%	Similar
Starting Year and Quarter of Recession: 1990, Q3				
Off-Premises	1.8%	3.4%	1.6%	Higher
Distilled Spirits	4.7%	8.2%	3.5%	Higher
Wine	3.7%	5.1%	1.3%	Higher
Beer	0.3%	1.2%	1.0%	Higher
On-premises	3.9%	6.1%	2.2%	Higher
Total Alcohol	2.6%	4.4%	1.8%	Higher
Starting Year and Quarter of Recession: 2001, Q2				
Off-Premises	5.0%	0.9%	-4.1%	Lower
Distilled Spirits	9.7%	5.5%	-4.2%	Lower
Wine	5.6%	2.9%	-2.7%	Lower
Beer	3.1%	-1.7%	-4.8%	Lower
On-premises	6.1%	5.1%	-0.9%	Similar
Total Alcohol	5.4%	2.4%	-3.0%	Lower
Starting Year and Quarter of Recession: 2008, Q1				
Off-Premises	2.6%	-1.3%	-3.9%	Lower
Distilled Spirits	2.5%	-1.5%	-4.0%	Lower
Wine	3.8%	-0.7%	-4.4%	Lower
Beer	2.1%	-1.5%	-3.6%	Lower
On-premises	2.1%	-2.5%	-4.5%	Lower
Total Alcohol	2.4%	-1.7%	-4.1%	Lower

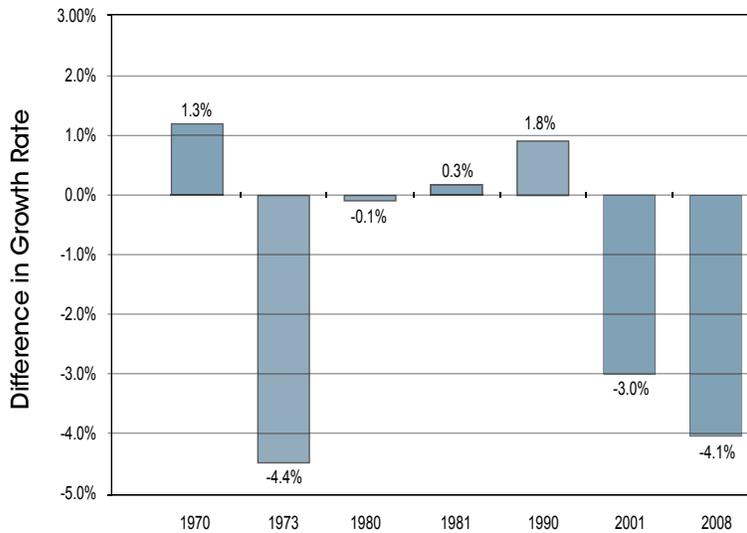
Various Responses Represented in Recessions

The data show examples of all four kinds of responses during recessions. The first consumer response, less growth in total alcohol spending, occurred in 1973, 2001, and 2008. Chart 3 shows these changes in total alcohol spending for each recession. The second kind of response, lower growth in on-premises alcohol consumption, occurred in the recessions that started in 1973, 1980, 1981, and 2008. This appears to be the most consistent response, happening in four of the seven recessions.

The third response was seen in both of the 1970s recessions. Beer consumption went up in the recessions of the 1970s, while distilled spirits consumption went down. This kind of response has not happened since the 1970s. And the fourth response, significantly higher total alcohol spending during a recession, happened in 1970 and 1990. (See Chart 3.)

Chart 3

Difference in Pre-Recession and Recession Growth Rates in Total Real U.S. Alcohol Consumption for Recession Since 1970



Alcohol Responses in Recessions Inconsistent

In conclusion, there appear to be no consistent patterns in alcohol consumption or spending during recessions. Recessions are all different; some last longer than average, some are associated with more than average job losses. Alcohol consumption responses during recessions are also different, and not very predictable. The historical data show that when confronted with a recession, people who drink alcohol have responded in a variety of ways.

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Please contact us if you would like to be added to our mailing list or have questions or comments.

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Online Resources

For more information about topics covered in this issue, please visit any of the websites listed below.

California Department of Finance
www.dof.ca.gov

California Employment Development Department (EDD), *Labor Market Conditions in California*
www.labormarketinfo.edd.ca.gov

Federal Reserve Bank of Philadelphia, *Survey of Professional Forecasters*
www.phil.frb.org/econ/spf/index.html

National Association for Business Economists
www.nabe.com

U.S. Bureau of Economic Analysis
www.bea.gov

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www.bls.gov/cpi/

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www.census.gov