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THE GOLDEN AGE OF GASOLINE PRICES

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Gasoline prices at the pump have been rising as long as anyone can remember. Before the 1973-74 oil embargo, gas sold for approximately 30 cents per gallon. After the embargo the price more than doubled. By 1981 the price had climbed to $1.37 but rose above that price only once in the following 20 years. In five years during that period, it actually dropped below $1.00 per gallon. Today, as virtually everyone knows and bemoans, gas is selling for roughly $3.00 per gallon with no relief in sight.

As a percentage of household income, however, annual spending on gas was actually lower in 2006 than 30 years earlier. Specifically, households spent 3.3 percent of their income on gas purchases in 1976 compared to 2.8 percent in 2006. These estimates presume that the average household drives one car that gets 15 miles per gallon a total 12,000 miles per year. The share percentage doubles if the household owns two such cars or instead drives one vehicle 24,000 miles per year. Even so, the share of household income allocated to gas purchases was smaller in 2006 than in 1976. See (D) in the table below.

The period 1981 to 2001 could be called the golden age of cheap gas in the sense that gas purchases fell from a high of 4.7 percent of household income to 1.5 percent. More than any other factor, this dramatic drop reflects a turn around in economic conditions in which average household income increased every year during that period. Thus, *the percentage share of gas purchases for three cars in 2001 was the approximately the same as the share for one similar car in 1981.* Put differently, households in 1981 would have had to drive a 48mpg car or limit annual travel to 3747 miles to keep the share of household income allocated to gas purchases at the 1.5 percent share attained in 2001. See (G) and (H) in the table. Little wonder that American consumers flocked to big low mpg vehicles even when a wide array of smaller high mpg cars were available. Comfort and safety trumped miles per gallon.

The golden age of cheap gas came to an end after 2001 no doubt as consequence of economic growth in China and elsewhere pushing demand for oil-based products and a dramatic increase in worldwide terrorist attacks threatening to restrict supply. By 2006 the share of household income allocated to gas purchases increased to 2.8 percent for one car or 5.6 percent for two cars. To maintain the 1.5 percent share attained in 2001 with one 15mpg vehicle households in 2006 would have had to switch to one car that gets 28mpg or limit annual travel miles to 6420 miles with a 15mpg vehicle.

	Actual Price per Gallon (A)	Expenses 15 mpg 12,000 m (B)	Actual Mean Household Income (C)	Expenses Percent of of Income* (D)	Recalculated to Equivalence with 2001 Expenses as Percent of Income (E)	(F)	(G)	(H)
1976	$ 0.626	$ 501	$ 14922	3.3 %	$ 224	$ 0.280	5367m	34mpg
1981	1.365	1092	22787	4.7	341	0.426	3747	48
1986	0.823	658	30759	2.1	461	0.576	8402	21
1991	1.123	898	37922	2.3	569	0.711	7600	24
1996	1.260	1008	47123	2.1	707	0.883	8417	21
2001	*1.131*	*905*	*58208*	*1.5*	*905*	*1.131*	*12000*	*15*
2006	2.334	1867	66570	2.8	999	1.248	6420	28

(B) = [12000÷15] x (A)

(D) = (B) ÷ (C)

(E): annual gasoline expenses recalculated as 1.5 percent of actual household income = (C) x 0.015
(F): price of gasoline necessary to drive 12,000 miles on recalculated annual gas expenses = [(E) x 15] ÷ 12000
(G): maximum annual mileage based on recalculated annual gas expenses = [(E) ÷ (A)] x 15
(H): mpg vehicle necessary to drive 12,000 miles on recalculated annual gas expenses = 12000 ÷ [(E) ÷ (A)]

Sources: U.S. Department of Labor, *Average Price Data,* unleaded regular gasoline <http://data.bls.gov/cgi-bin/dsrv> and U.S. Census Bureau, *Historical Income Tables – Households*, Table H-5, <http://www.census.gov/hhes/www/income/histonc/h05.html>.

Is there a tipping point in terms of the price of gas where Americans would prefer smaller high mpg vehicles to bigger low mpg vehicles? The answer lies in the extent to which gas prices continue to rise in response to growing global demand for oil alongside a more-or-less fixed supply of that natural resource at least in the near term, and the growth in household incomes. Notice the anomaly: the very economic growth that pushes incomes

higher also drives up the demand for energy and that in turn drives up gas prices unless we experience very substantial increases in productivity across the U.S. economy.

It is tempting to speculate about such a tipping point but only a fool would pursue such a will-o'-the-wisp. The vehicle buying public is vast and varied, some focusing on comfort, performance, style, options, or purchase price, almost entirely without regard to gas prices, and others zeroing in gas prices and mileage.

No one knows for sure where the tipping point lies or if there is one tipping point or several. What we can say with assurance is that we will know more later.

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