

OIL SHOCKS AND ENERGY CONSERVATION

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This brings me to the issue of why I had to downgrade the negative impact calculated in early September after Katrina, even though Rita caused more trouble in the oil and gas markets. First, oil prices have come down sharply in the last few weeks and so has gasoline. Why? Apart from oil refineries coming back online and increasing the supply of gasoline, people have also very quickly conserved their use of gasoline. Currently, gasoline use is down 2-3% from levels seen a year ago. If you add the 5% nominal growth that the economy has experienced since then, this is quite a drop. In my view, the

threshold for a change in consumer driving patterns is a sustained \$2.50 plus a gallon for gasoline. My own personal tipping point is gas above \$3.50 (having lived in the car-obsessed culture of Los Angeles). I did change my driving habits (or shall we say eased up on the pedal) when on September 1st at the height of the gas panic in Atlanta I deliberately filled my tank for \$3.79 a gallon just to shock myself!

It appears as if auto and light truck sales have fallen sharply in response to high gas prices, especially in the large SUV category

Table A

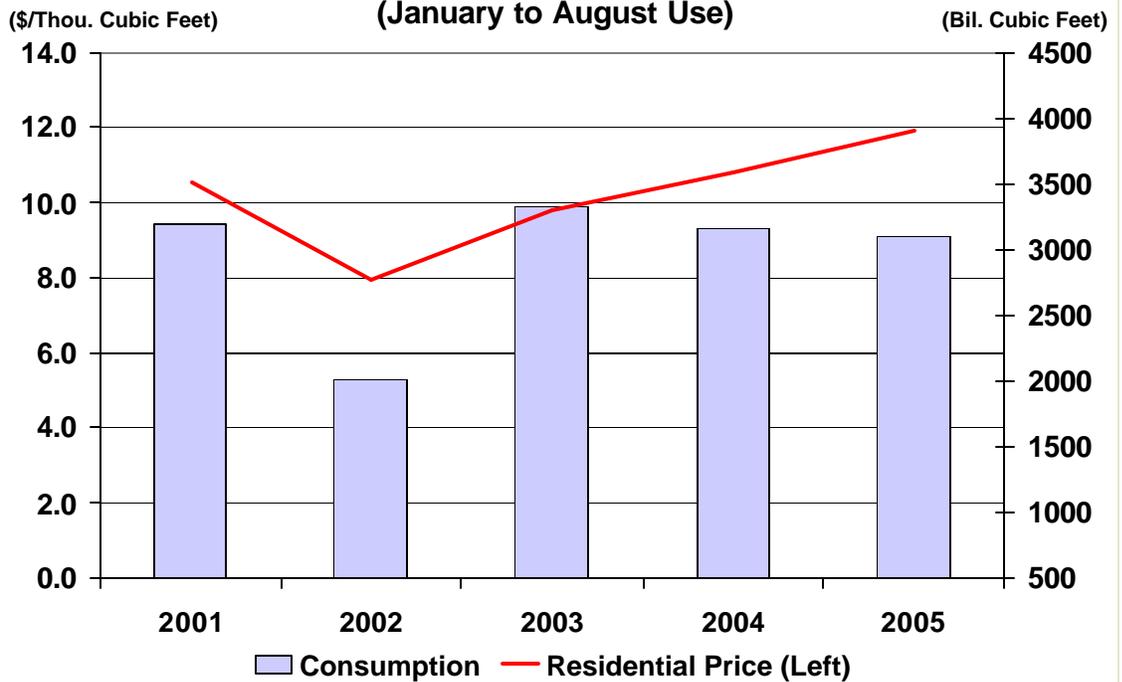
2005 Boeing Aircraft Orders-Top 10

Airline	737	747	767	777	787	Total
1. Ryanair (Ireland)	84					84
2. Japan Airlines	30		7	5	30	72
3. Air India	18			23	27	68
4. Int. Lease Finance Corp.	20			8	20	48
5. GOL Airlines (Brazil)	48					48
6. Emirates (UAE)				42		42
7. Alaska Airlines	35					35
8. Air Canada				18	14	32
9. Lion Air (Indonesia)	30					30
10. China Southern Airlines	20				10	30
2005 GROSS ORDERS	574	48	19	155	235	1031

Source: Boeing.com

Figure B

Residential Natural Gas Price and Consumption



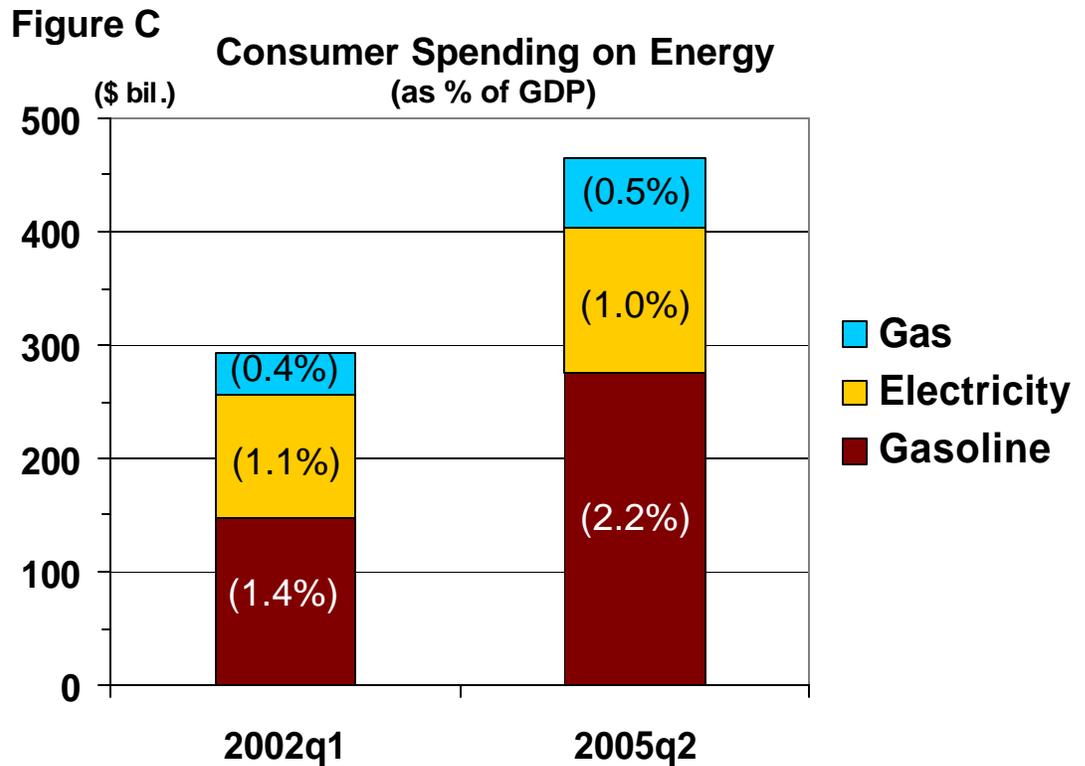
Source: Energy Information Administration, U.S. Department of Energy

and for the big three carmakers in Detroit. However, the major reason is that Detroit finally pulled back on the huge discounts they had offered over the summer and early fall. Net-net, if prices remain free of political and economic restraints they can make people conserve. Grand standing by politicians ranging from putting outright price controls (as in the 70's) to questioning the appropriateness of profits of oil companies (no saints in my opinion) is counterproductive. Apart from creating lines at gas stations, it also sends a message to the corporate sector that making bets that result in profits is sinful, which has the unfortunate effect of shutting down R&D in the oil sector as well as the rest of the economy. But I also sympathize with the politicians who get pressured by their constituents to look like they are doing something. The best thing they can do is stay out of the blame game and let the markets do their job, which as the current episode shows, can be very quick.

This moderation effect of prices on demand will keep oil substantially below the \$70 mark for the coming quarters, barring any more disruptions. We just dodged Wilma in

late October and the season doesn't end officially until November 30th. Oil prices are, however, expected to remain in the \$50-plus range for the next 12 months in my current forecast. If one wants to bet back to \$1.50 a gallon for gasoline, then either give me a dollar that is 50% stronger (I can hear Boeing and other export-oriented company execs wincing) or a sharp slowdown in the global economy, especially in China and the US. Both of these are low probability events that you don't want to wish for when making a list for Santa this Christmas.

But what about the impending rise in household heating costs? That hike is coming and is expected to cost an average household about \$500 extra this winter. This will definitely hurt consumer confidence and short-term spending. Here again, I am betting on the conservation mechanism. **Figure B** plots year-to-date natural gas use and the price of gas for the years 2001 to 2005. Business cycle factors play a big role from 2001 to 2003 to explain the ups and down. Later, as the economic recovery gained momentum, adding to the demand for natural gas, prices rose to historic highs but the final observed



Source: Bureau of Economic Analysis

demand actually fell by almost 5%, instead of rising! Even here the price effect turns out to be stronger than the income effect. This channel will be at work this winter to mitigate the damage but not the discomfort.

Now, what about the impact from the rise in overall total energy prices on the economy? **Figure C** plots expenditures of different types of energy consumption in the economy for 2002 and 2005. One fact that is obvious from this graph is that the nation is now spending an extra \$150 billion on energy needs. However, one small surprise is that natural gas spending as a proportion of GDP is quite small compared to gasoline spending. We have already weathered that storm and the natural gas one is coming in the winter for us to parry. But just sit back and answer this simple question: Is the economy so fragile that an extra \$20 billion in natural gas spending will wreck a typical household's budget?

Low-income families will definitely feel the pinch, but am I to believe that a middle-class household is going to tip into

bankruptcy just because heating bills increased for three months? The answer should be an obvious "no" unless you are factoring in the assumption that dis-savers or profligate households with fragile financial health form a very large chunk of the current population. If you believe this hypothesis, then you must also believe that the trade deficit is a bad thing as we are too dependent on foreign savings. I don't remember reading anywhere in any economics textbook that all the investment in an open economy has to be financed by domestic savings. If you have been reading my reports diligently (give yourself a pat if you are one of them), then you know I think that if it wasn't for the trade deficit, given the FED's 12 rate hikes, the long-bond rates would have crossed 6.0% by now. A dearth of global investment opportunities has kept money flowing into the US even as the dollar has weakened considerably. This is the perk one gets to enjoy when one's currency is the world's reserve metric.