SISR Strategic International Securities Research Inc.
An Independent Research Firm

The Strategic Energy Report

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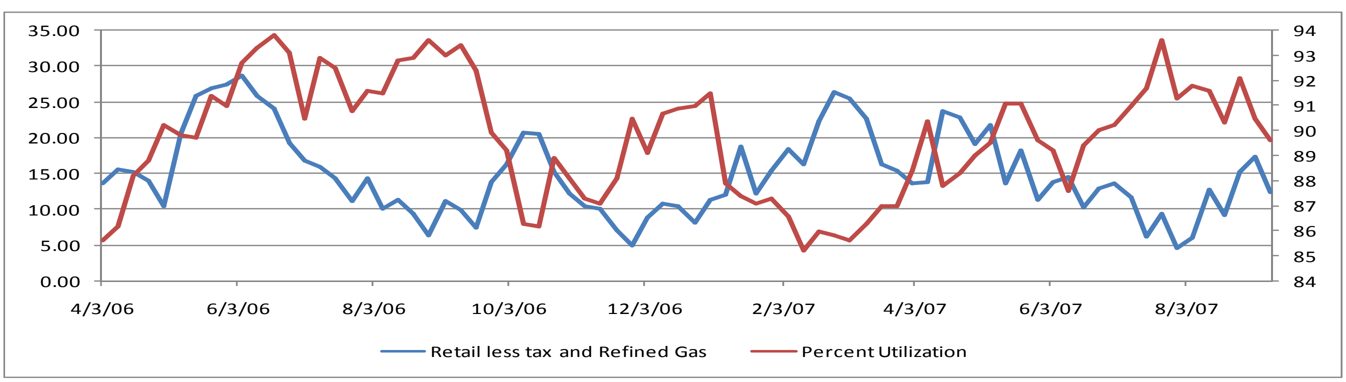
Congress Passes Demand Side Energy Bill: Refiners Likely Beneficiary

I. Introduction

On December 19, 2007 President Bush signed the long awaited Energy Bill of 2007. The bill raises corporate average fuel economy (CAFÉ) standards on automobiles, SUV's, and small trucks by 40% to an industry average 35 miles per gallon by 2020. It also increase production of ethanol use to 36 billion gallons a year by 2022 and requires and that at least 21 billion gallons are to come from feed stocks other than corn, like cellulosic feed stocks such as prairie grass and wood chips.

Figure I: Weekly Price of Gasoline lagged 20 weeks against the Capacity Utilization of Refiners
Jan 2006 to December 14, 2007



Source: EIA, SISR

SISR has argued that as soon as the energy bill is passed without any impact on the supply side, the price of gasoline will increase leading to more favorable conditions for the refiners. SISR expects that the price of gasoline will continue to increase into the driving season with the likelihood of gasoline exceeding $3.50 per gallon, assuming the economy holds up, and it is not in a recession. SISR as a consequence continues to recommend the accumulation of all U.S. refiners.

II. Expectation that the Crack Spread will Increase in Coming Months

We have written extensively regarding this energy bill: SISR, Politics *and Oil,* June, 24, 2007; SISR, *Politics and Oil III,* July 22, 2007; SISR, *Price of Gasoline Expected to Rise to $4.00,* October 25, 2007; SISR, *Refining Margins Improving: But still Tracking Worse Q/Q but Better Y/Y,* November 13, 2007; SISR, *The Supply Side: Rethinking the International Demand and Supply Conditions for Crude Oil, December 4, 2007*). In each report we argued that it was likely that the CAFÉ standards part of the bill would survive but there would be no impact on the supply side of the equation, or the oil industry. Any attempt to reduce tax incentives on the oil companies would be death nail for the bill. Throughout the nearly 6 month progression of this bill we argued that the crack spread would be at near record lows until it was clear that oil companies would not be affected by this bill, and once such visibility appeared, the crack spread would increase commensurately with the increase in the price of crude oil (please see *Price of Gasoline Ibid).*

Conventional wisdom assumes that there is a shortage of U.S. refining capacity with little or no new growth in refining capacity, resulting from the argument: "NOT IN MY BACKYARD." Given this presumed refining capacity shortage, the price of gasoline rises when these shortages become acute. The reality is that that the refiners function between 82% and 97% of full capacity, and their plant utilization rate, determines the ultimate price of gasoline from the supply side, and not from the demand side of the equation. CAFÉ standards will only affect the demand side, which in the near term will not impact the price of gasoline. We have found that there is a 22 to 29 week lag in the price of gasoline determined by the utilization rate of refined capacity, enabling the refiners to exercise some degree of control over the price of gasoline. Assuming all this is correct, we expect that refining capacity, now that the energy bill has passed, will decline leading to even higher prices within the next 2 to 3 months.

From Figure I we find an inverse correlation between the retail crack spread or the profit margins of the refiners and their capacity utilization, when the spread is lagged by 20 weeks. This indicates that utilization rates affect future profitability inversely with the likelihood that in the coming months the refiners will contract capacity. Figure II below indicates this current trend, which will be discussed in greater detail below.

III. Capacity Leads Price by 21 – 29 Weeks

Table I refines this argument by showing the lead lag structure between capacity utilization of refiners and the price of gasoline. The table provides the results from a correlation analysis between capacity utilization by the refiners, and the price of gasoline using data from 1991 to 2007, 2001, 2002, 2003, 2004, 2005, and 2006 through 2007 respectively, lagging the data from 0 periods to -39 periods. In each of the correlation matrixes' we find that the highest negative correlation occurs between 21 weeks and 29 weeks after a change in refining capacity utilization. Therefore, if production goes down price goes up, and conversely. The refiners operate between 82 and 97 percent of full capacity enabling them to exercise some control over the price of gasoline from the supply side of the equation, by expanding or contracting capacity, or the amount of gasoline that enters into the market.

Table 1: Correlation between Capacity Utilization and Retail Gas Price Lagging Gas 0 to 39 Weeks from 1991, 2001, 2002, 2003, 2004, 2005, 2007 -2007

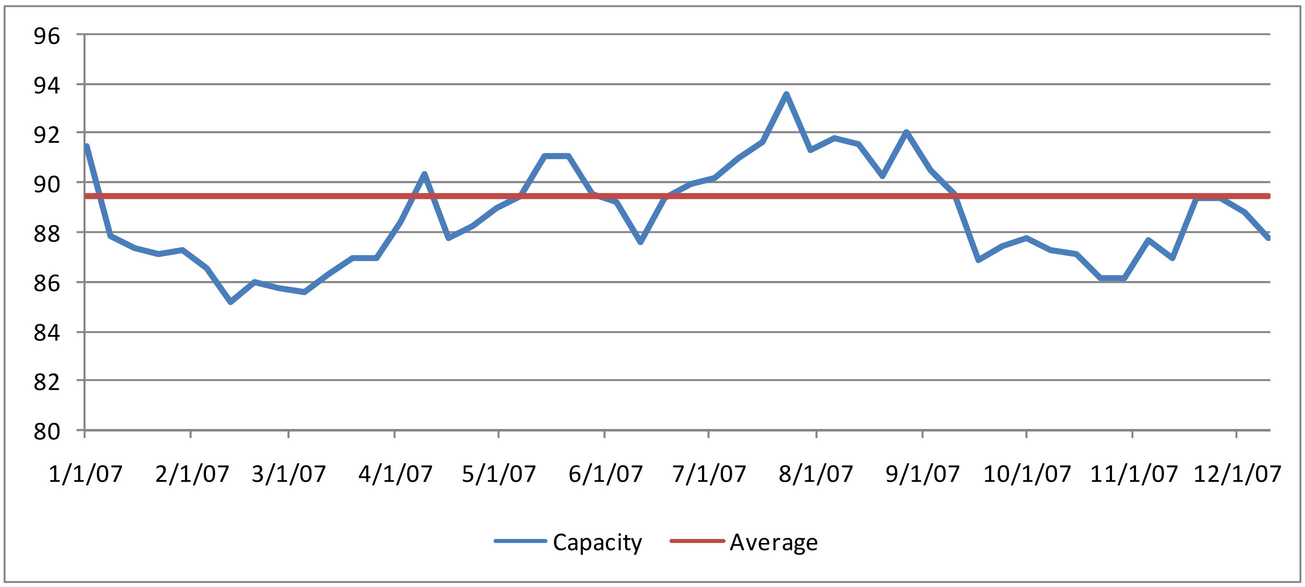
Percent Capacity	Retail Gas 1991-2007	Retail Gas 2001-2007	Retail Gas 2002-2007	Retail Gas 2003-2007	Retail Gas 2004-2007	Retail Gas 2005-2007	Retail Gas 2006-2007
0	-0.15	-0.19	-0.18	-0.30	-0.25	-0.12	0.49
-1	-0.15	-0.21	-0.19	-0.31	-0.26	-0.13	0.42
-2	-0.15	-0.21	-0.18	-0.30	-0.25	-0.10	0.32
-3	-0.15	-0.21	-0.19	-0.30	-0.25	-0.08	0.22
-4	-0.16	-0.21	-0.19	-0.30	-0.25	-0.07	0.13
-5	-0.16	-0.21	-0.18	-0.30	-0.24	-0.06	0.04
-6	-0.16	-0.21	-0.18	-0.29	-0.23	-0.03	-0.04
-7	-0.16	-0.20	-0.17	-0.28	-0.22	-0.02	-0.12
-8	-0.16	-0.20	-0.17	-0.27	-0.22	-0.02	-0.18
-9	-0.16	-0.20	-0.16	-0.27	-0.22	-0.01	-0.23
-10	-0.16	-0.20	-0.16	-0.26	-0.22	-0.01	-0.29
-11	-0.16	-0.20	-0.16	-0.26	-0.22	-0.03	-0.34
-12	-0.16	-0.20	-0.16	-0.26	-0.23	-0.06	-0.38
-13	-0.16	-0.20	-0.16	-0.26	-0.24	-0.07	-0.41
-14	-0.16	-0.21	-0.16	-0.27	-0.25	-0.09	-0.43
-15	-0.16	-0.21	-0.17	-0.27	-0.26	-0.11	-0.46
-16	-0.17	-0.22	-0.18	-0.28	-0.28	-0.14	-0.48
-17	-0.17	-0.23	-0.19	-0.29	-0.29	-0.16	-0.50
-18	-0.18	-0.24	-0.20	-0.31	-0.32	-0.20	-0.53
-19	-0.19	-0.25	-0.21	-0.32	-0.33	-0.22	-0.56
-20	-0.19	-0.26	-0.22	-0.33	-0.35	-0.24	-0.57
-21	-0.20	-0.28	-0.23	-0.35	-0.37	-0.28	-0.60
-22	-0.20	-0.29	-0.25	-0.37	-0.39	-0.31	-0.59
-23	-0.21	-0.30	-0.26	-0.38	-0.41	-0.34	-0.56
-24	-0.21	-0.31	-0.27	-0.40	-0.43	-0.37	-0.52
-25	-0.22	-0.32	-0.28	-0.42	-0.46	-0.40	-0.48
-26	-0.22	-0.33	-0.28	-0.43	-0.47	-0.42	-0.43
-27	-0.22	-0.33	-0.28	-0.44	-0.48	-0.43	-0.37
-28	-0.22	-0.33	-0.28	-0.44	-0.49	-0.44	-0.30
-29	-0.22	-0.33	-0.28	-0.44	-0.49	-0.45	-0.25
-30	-0.22	-0.32	-0.27	-0.44	-0.48	-0.43	-0.20
-31	-0.21	-0.31	-0.26	-0.42	-0.46	-0.41	-0.15
-32	-0.20	-0.30	-0.24	-0.40	-0.43	-0.38	-0.10
-33	-0.19	-0.28	-0.22	-0.37	-0.40	-0.34	-0.03
-34	-0.18	-0.26	-0.20	-0.34	-0.36	-0.29	0.03
-35	-0.17	-0.23	-0.17	-0.31	-0.32	-0.24	0.10
-36	-0.16	-0.21	-0.15	-0.28	-0.29	-0.21	0.15
-37	-0.15	-0.19	-0.13	-0.25	-0.25	-0.18	0.21
-38	-0.14	-0.17	-0.10	-0.22	-0.22	-0.14	0.26
-39	-0.13	-0.16	-0.18	-0.20	-0.20	-0.12	-0.30

Source: EIA, SISR

IV. Forward Looking Expectations

Following the passage of the energy bill we see no serious hurdles for the refiners to continue to hold back capacity through the early summer months. Figure II plots capacity utilization for 2007 against the 3 year utilization average, indicating that we are already experiencing utilization rates below average. SISR projects that the capacity utilization rate going forward will be between 84% and 88%. The average capacity for the past three years has been 89.48%.

Figure II: Refining Capacity Utilization from January 2, 2007 through December 14, 2007



Source: EIA, SISR

From Figure II we also find that immediately after the Senate passed their original version of the bill on June 22, 2007 the capacity utilization of the refiners began to increase. They extended this increase until August 27th three weeks after the House passed their version of the bill. Within weeks of the house passage of the bill, which included incentive reduction for the oil industry, it became clear that the senate would not have 60 votes to pass the oil tax portion of the house bill, and the White House was threatening a veto, if there were reductions of tax incentives for the oil industry.

Immediately after the house bill passed and the recognition of the difficulty that the bill would have by attempting to include the feared tax measures, we find a gradual reduction of capacity utilization and gasoline prices slowly increasing. The prices of gasoline increase several months after there had been a major increase in price of crude oil. Crude was nearly $100 a barrel having increased from the mid 70 dollar a barrel range, while gasoline remained constant in the $2.75 range.

As gasoline moved up to $3.13 a gallon there was increase chatter about rethinking the need for a reduction in the oil companies' tax incentives. Many of the major news papers were carrying stories and editorials like in the New York Times, calling for these reductions. This call for reduced tax incentives to the oil industry may have had the effect of raising the capacity in early November and retarding the rise in gasoline prices with gasoline falling back to $3.00 from their recent high of $3.13.

We expect to see gasoline stay well over $3.00 in the coming weeks and months. SISR is projecting that capacity utilization will remain at the low end of the range, between 84 to 87%, and not even come close to exceeding the 18 year average of 91.4 %, nor the 3 year average of 89.4% capacity. By keeping capacity in this lower range by April of 2008 we would expect to see gasoline prices at the pump rising to the $3.50 range, with the refiners having turned the corner on what was a difficult six month period. In light of these events SISR is strongly recommending the accumulation of all the American Refiners going into the coming New Year.

For the past twenty years this author has been advocating an increase in the CAFÉ standards. We are immensely pleased to see that there has been an increase in the CAFÉ standard, and that attention is being paid to issues of Global Warming. We strongly believe in the principle “better late than never,” however, we have come to the conclusion that when attempting to understand the petroleum industry today, the demand side causes more confusion and may even prevent the analyst from understanding its dynamics, with the supply side having the gas that runs the engine. In future work we will continue to focus on the supply side and begin to track these metrics to the major refiners, in an effort to project the revenues and earnings of these companies.

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