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Quarterly Energy Update

Second Quarter 2009

Petroleum Prices Rebound as Natural Gas Continues to Slide

Although demand for oil remains weak, prices have rebounded from the lows of the first quarter (*Chart 1*). As of early May, the spot price for West Texas Intermediate crude (WTI) was near $54 per barrel, over 25 percent higher than the first quarter average of $42.88. If economic activity picks up in the latter half of the year, we can expect further firming in oil prices.

Chart 1
Real Oil Price Rebounds Slightly
WTI, 2008 dollars/barrel

SOURCES: *Wall Street Journal*; Bureau of Labor Statistics; seasonal and other adjustments by the Dallas Fed.

Gasoline Prices Rising

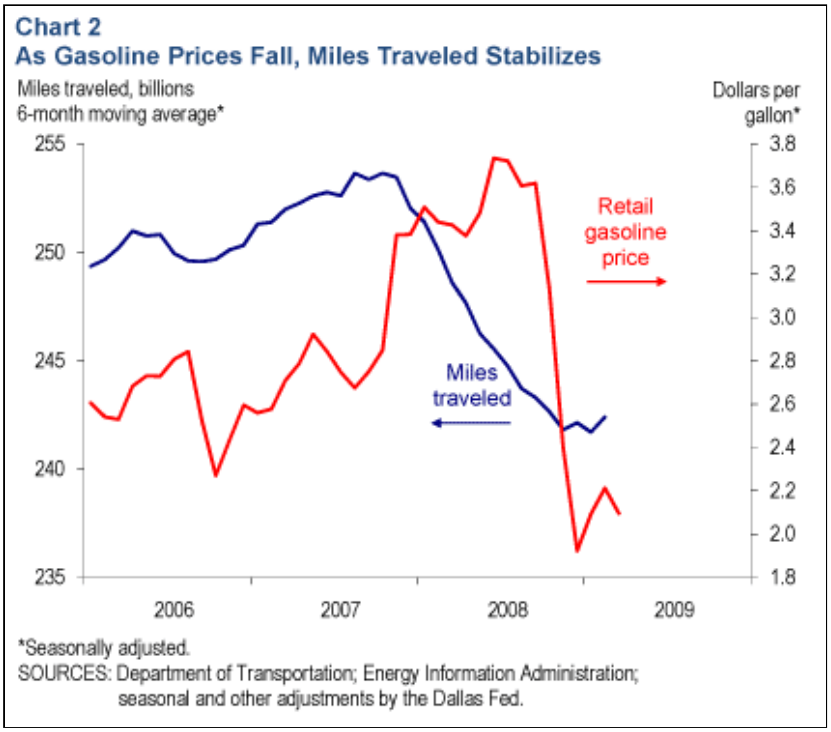
Following oil prices, gasoline prices are off their recent lows on declining refinery utilization and signs of stabilization in vehicle miles traveled (*Chart 2*). The onset of the summer driving season and increased travel will put upward pressure on prices. As of early May, prices are slightly over $2.10 per gallon, about 9.3 percent higher than the first quarter average, but over 40 percent below year-ago prices.

Current Analysis

- Dallas Beige Book
- Economic Updates
- **Quarterly Energy Update**
- Metro Business-Cycle Indexes
- Regional Economy Slide Show
- Texas Manufacturing Outlook Survey

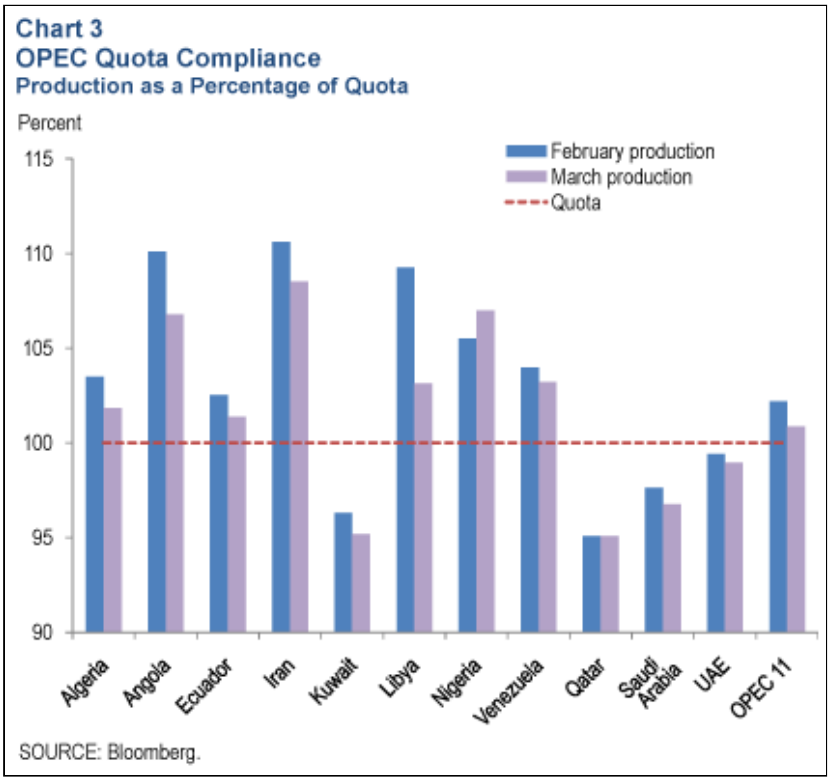
Other Resources

- Fed in Print—an index of Federal Reserve economic research
- Catalog of Public Information Materials



OPEC Production Held Steady

At the March 15 meeting, OPEC opted to hold production constant but encouraged member countries to further adhere to quotas. The International Energy Agency estimates compliance at 83 percent, and with the exception of Nigeria, all producers exceeding their quotas trimmed production in March (*Chart 3*). If OPEC reaches full compliance, it will trim an additional 700,000 barrels per day from the market.

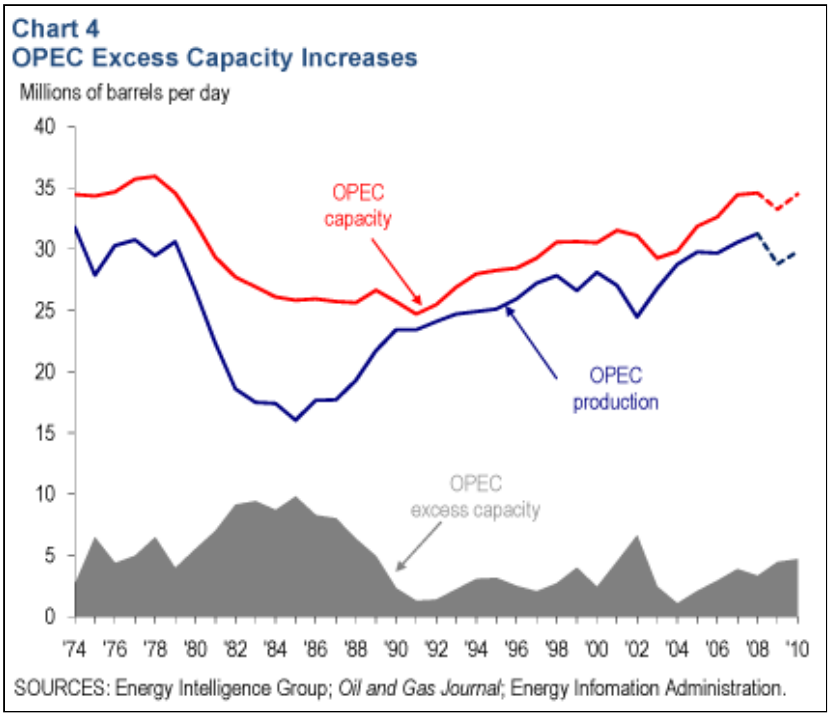


OPEC Excess Capacity Increases

Reductions in output have brought supply and demand closer to alignment but have also increased excess production capacity. The Energy Information Administration (EIA) estimates OPEC has 5 million barrels per day of excess capacity, its highest level since 2002 (*Chart 4*). This provides a substantial

cushion against a rebound in demand, but without continuing investment, excess capacity will diminish.

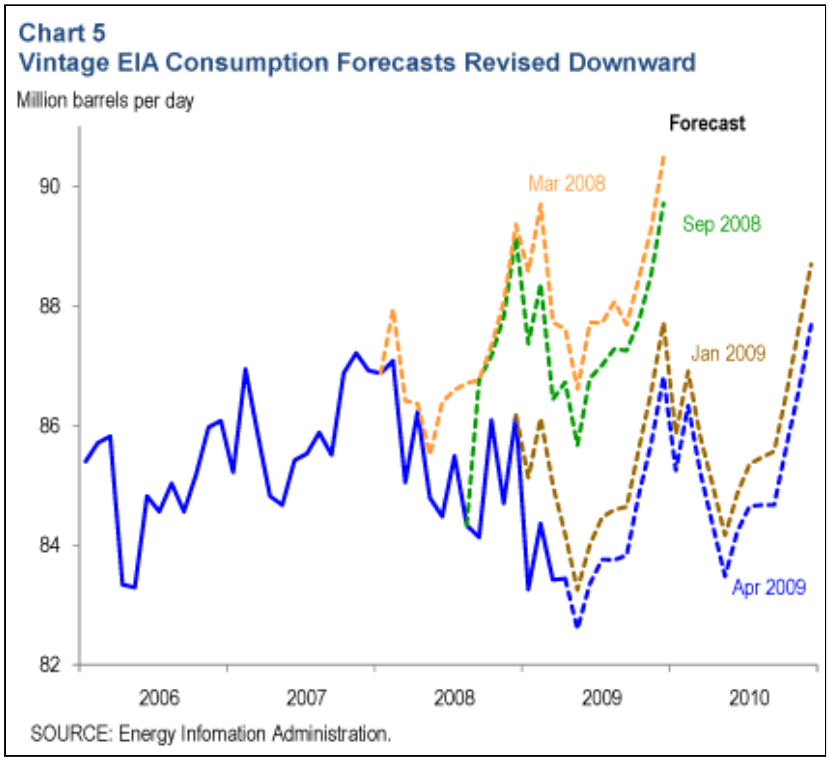
Reduced expectations for global growth have led to spending cuts at oil companies, leading to decreased maintenance and increased decline rates for many mature oil fields. Higher-cost non-OPEC fields look more vulnerable, but OPEC is not immune—over 30 OPEC expansion projects have been put on hold amid the economic turmoil.



Demand Expectations

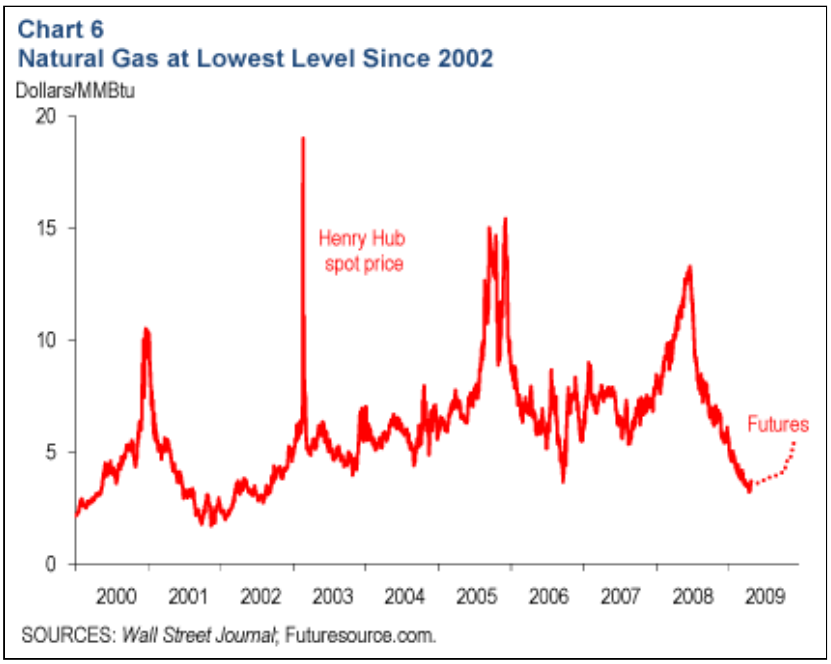
Looking at vintage EIA forecasts, we can see that petroleum consumption estimates for 2009 have fallen drastically since mid-2008 (*Chart 5*). As recently as September, demand forecasts incorporated only minimal effects from the economic downturn. Demand is now expected to bottom out in June at just over 83 million barrels per day, before rising through the end of 2010.

The expected rebound in demand is relatively strong, though average consumption in 2009 is projected to drop to 84.1 million barrels per day—3.3 million barrels lower than was expected in September of 2008, and 1.3 million barrels below the 2008 average.



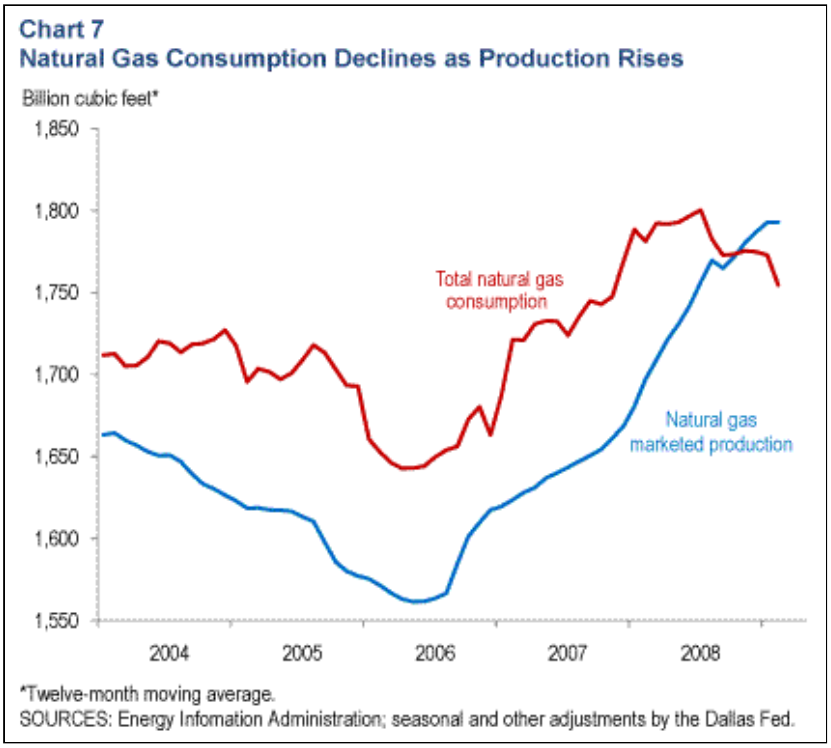
Natural Gas Prices Continue Fall

As oil prices recover ground, natural gas prices continue to hover near multiyear lows (*Chart 6*). Decreased consumption due to the economic malaise and increased supply are the culprits.



Within the past few years, abundant new supplies of natural gas became available in the Barnett and Haynesville shales. Shale plays began serious production in 2004 and increased significantly over the following years. Reaching its highest level since 1974, natural gas production peaked in 2008 just as the economy—and industrial activity—slid into decline.

As the economy deteriorated in the latter part of 2008, natural gas consumption in industrial activities followed suit. Natural gas use in the industrial sector fell to 1.6 trillion cubic feet (Tcf) in fourth quarter 2008, down 5 percent from 1.7 Tcf in the final quarter of 2007. As consumption declined, supply continued to increase (*Chart 7*), pushing prices lower.



Natural gas has now traded under $4 since March 26. Lower prices have led to a sharp decline in the natural gas rig count, which is down to 775 from its high of 1,585 in September 2008, a 51.1 percent drop over the past seven months. In February, year-over-year production was flat compared with the high-single-digit increases seen throughout 2008. Given the decline in the rig count, gas production could decrease in the coming months as compared with year-ago levels. The extent of demand deterioration remains to be seen.

—Jackson Thies and Mine Yücel

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