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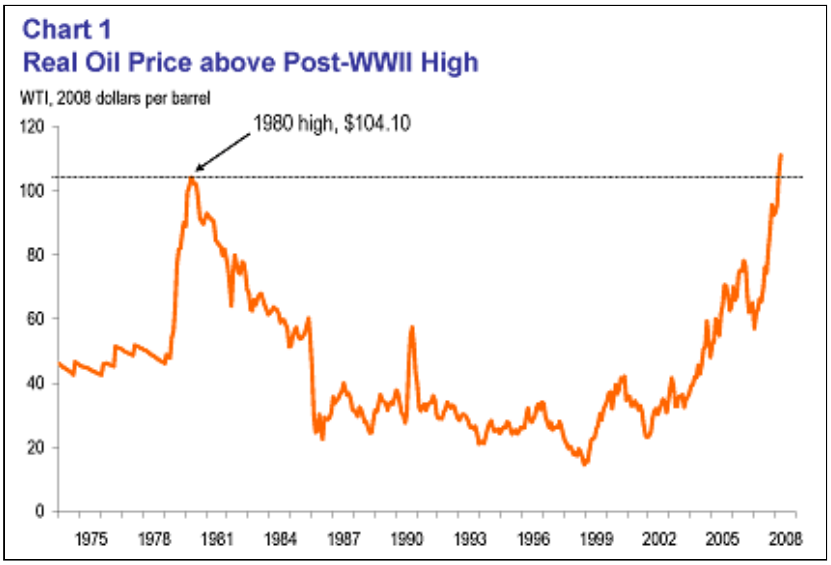
Quarterly Energy Update

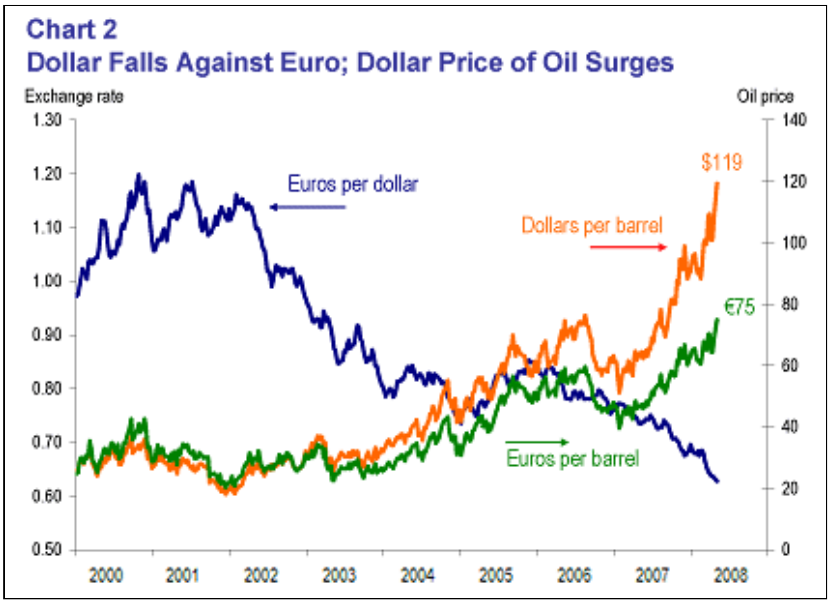
Second Quarter 2008

No Letup in Energy Prices

Oil prices continued rising, with the benchmark West Texas Intermediate (WTI) crude oil setting new records week after week and strengthening by about 20 percent in April alone. On Tuesday, April 23, WTI surged to nearly $120 per barrel, eclipsing the previous inflation-adjusted high of $104.10 set in April 1980 (*Chart 1*).



The most recent series of oil price gains stem from a variety of developments. Among the usual suspects is a 1 million barrel per day disruption of Nigerian oil production. Mexico and Russia also experienced sharper-than-expected production declines, the former accompanied by uncertainty in the level of oil reserves. Finally, the dollar continued its downward slide, propping up dollar-denominated oil prices even further (*Chart 2*).



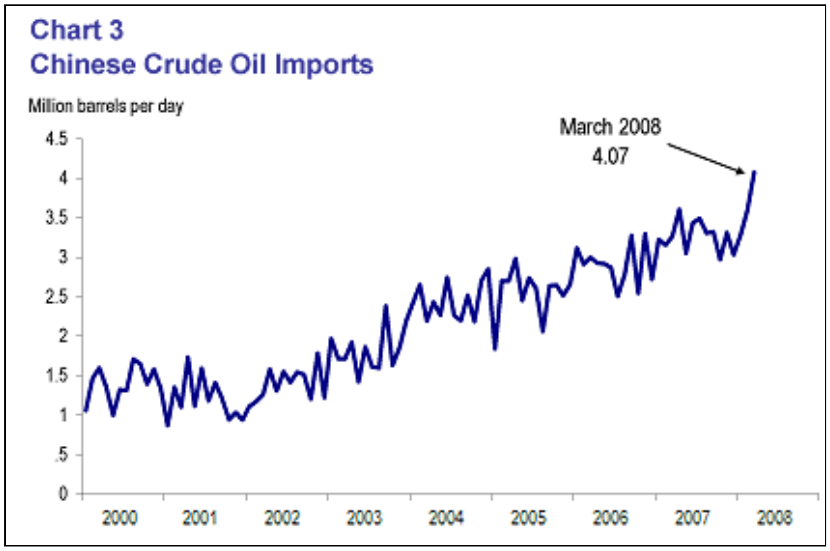
Current Analysis

- 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

Data released recently by Chinese customs authorities show a surge in the emerging giant's oil imports in March. On a year-over-year basis, China's crude oil imports rose 25 percent in March and 15 percent in the first quarter (*Chart 3*). Although there have been reports of diesel fuel shortages in China, the gains in China's oil imports may owe to inventory accumulation in anticipation of the Olympics rather than a dramatic acceleration in its oil consumption.



Long-Term Oil Price Expectations Rise

Physical conditions in the oil market in early 2008 suggest a loosening, with the International Energy Agency seeing a much smaller call on OPEC oil than it did previously. So far in 2008, world oil consumption has grown more slowly than previously expected. New sources of oil are being brought online, excess capacity in OPEC (mostly Saudi Arabia) is up, and there are reports that tankers are being put to sea without specific markets for the oil that they carry.

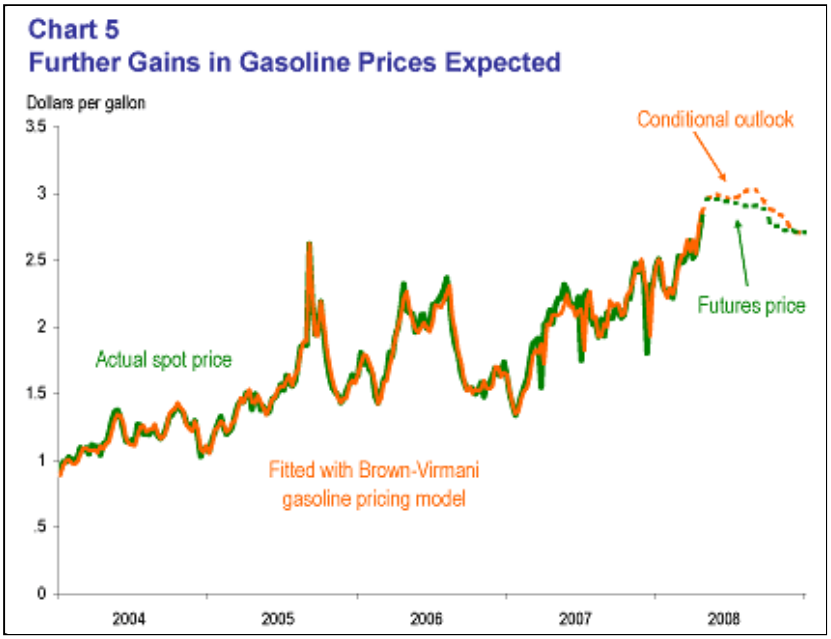
Gains in long-term oil price expectations are evident in rising futures prices (*Chart 4*). These gains are mainly founded on expectations that long-term oil resource development is falling behind the growth of world oil demand and that as world economic activity strengthens, the market for oil will retighten.

Gasoline Prices Rise; New Highs Expected

With crude oil prices rising, the national average pump price of regular unleaded gasoline has risen above $3.50 per gallon. The previous all-time (nominal) high

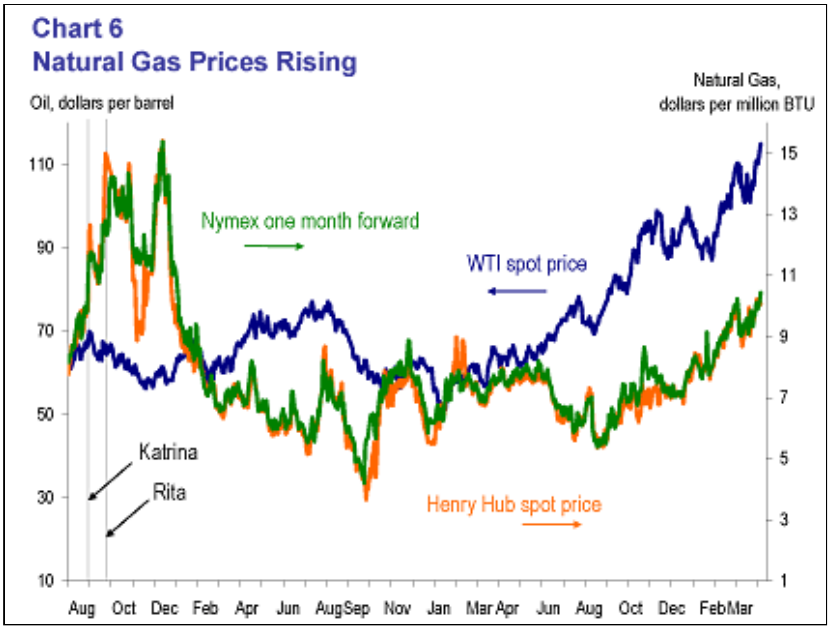
for the national average retail price was $3.23 per gallon for regular unleaded, set a few days before Memorial Day weekend in 2007. In 2008 dollars, the real post–WWII high for regular unleaded was $3.40 per gallon in August 1980.

U.S. gasoline consumption has fallen to about 1 percent below a year ago—likely the result of economic slowing and higher gasoline prices. Gasoline inventories are above normal, and refiners' and ethanol margins are low. If these factors remain in place and oil prices continue on their current trajectory, the Brown–Virmani gasoline pricing model shows spot gasoline prices rising above $3 per gallon by Memorial Day (*Chart 5*), which would mean a national average retail price of about $3.70 per gallon for regular unleaded. On the same trajectory, the retail gasoline price should be about $3.80 by late summer.



Natural Gas Prices Rising; Much Stronger Gains in the Future

Higher oil prices, several cold spells, seasonal gains in demand, reduced inventories and expectations of increasing natural gas use to generate electricity are continuing to push natural gas prices upward (*Chart 6*).



Despite recent gains, U.S. natural gas prices remain well below international prices for liquefied natural gas (LNG) and below any normal parity with crude oil. LNG is currently selling for about $18–$19 per thousand cubic feet (Mcf)—nearly twice the Henry Hub price of natural gas. Because the United States does not have the facilities to export natural gas to the world market, the only

avenue for arbitrage of natural gas prices between the U.S. and the rest of the world is a sharp reduction in LNG imports.

Weak manufacturing activity, the development of domestic natural gas resources and slightly elevated natural gas inventories account for the weakness in U.S. natural gas prices. Natural gas inventories currently measure at the five-year average for the same week, but because inventories were high for several consecutive years, that average does not represent a normal scenario.

Looking longer term, much higher natural gas prices seem likely—even though U.S. natural gas producers are thought to be sitting on sizable supplies of undeveloped resources. A recovery in U.S. manufacturing should sharply boost U.S. natural gas demand. Once LNG imports become the marginal source of U.S. supply, much higher international natural gas prices should prevail.

—Stephen P. Brown and Raghav Virmani

About the Authors

Brown is director of energy economics and microeconomic analysis and Virmani is an economic analyst in the Research Department at the Federal Reserve Bank of Dallas.