Special Bulletin

## **Remaining High Crude Oil Prices and Their Background**

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Crude oil prices have remained high so far in 2012. In the first 11 months of the year, the benchmark West Texas Intermediate futures price averaged \$94.7/barrel and the Brent futures \$111.9/barrel. The averages changed little from the previous year's levels (\$95.1/barrel for the WTI and \$110.9/barrel for the Brent). Crude oil prices have thus remained around \$100/barrel for two years on end. In my crude oil price outlook for 2012 as released in late December 2011, the futures price was forecast at \$100/barrel (plus or minus \$10) for the WTI and \$110 (plus or minus \$10) for the Brent, meeting actual levels.

What happened in the international oil market under the continuing high oil prices? First, oil demand slowed down gradually. According to the November monthly oil market report by the International Energy Agency, oil demand in 2012 is estimated at 89.59 million barrels per day, with growth from the previous year limited to 670,000 bpd or 0.8%.

A region-by-region breakdown of oil demand in 2012 indicates that demand among the members of the Organization for Economic Cooperation and Development declines by 500,000 bpd from the previous year as industrial countries including Japan, the United States and European nations suffer an economic slump with demand for transportation fuel falling amid steady improvements auto fuel efficiency. Non-OECD countries, which have driven global oil demand, post a demand increase of 1.17 million bpd, more than offsetting the decline in OECD countries. But the growth for non-OECD countries is slowing down. In China and other Asian emerging countries where economic growth has decelerated, annual oil demand growth has steadily narrowed from 1.44 million bpd in 2010 to 630,000 bpd in 2011 and 540,000 bpd in 2012, though with oil prices remaining high.

Given the abovementioned trend, the IEA has substantially revised downward its global oil demand growth projection in 2012 from the initial level at 1.08 million bpd as released in January. These points indicate that future global oil demand growth depends on trends in emerging economies including China and other Asian nations as well as Middle Eastern countries.

Meanwhile, interesting changes have been seen in oil supply. Oil producing countries other than the members of the Organization of the Petroleum Exporting Countries (non-OPEC) are

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projected by the IEA to expand oil output in 2012 by 450,000 bpd from the previous year to 53.22 million bpd. A country-by-country breakdown of non-OPEC oil output indicates that the United States is expected to expand oil production by a substantial 840,000 bpd to 8.96 million bpd while other major non-OPEC oil producers such as Mexico, Britain and Norway are projected to continue reducing their output. Although Canada and Russia have also raised their production, the sharp U.S. production growth has supported the overall non-OPEC output expansion. It may be needless to say that there has been a sharp expansion in production of unconventional shale (tight) oil behind the U.S. output increase.

Amid the shale gas revolution, horizontal drilling and hydraulic fracturing technology for shale gas production have successfully contributed to expanding shale oil output. As gas prices have declined remarkably with oil prices remaining high, economic interests have grown on shale oil output to be expanded in the U.S. upstream sector. Under such situation, upstream investment has prospered in Bakken and other major shale oil fields, contributing much to overall U.S. oil output growth.

The U.S. shale oil production expansion is expected by many people to continue for the immediate future. The U.S. oil output growth (and oil demand fall) may have to be watched as a key factor affecting the global oil supply-demand balance. But it is important to recognize high oil prices as a factor behind the U.S. production expansion. High oil prices have become a key incentive for investment in expanding shale oil output. While shale oil production costs are reported as high, shale oil (and gas) fields feature high depletion rates. Given these points, we may have to keep close watch on how crude oil price changes would affect the future U.S. oil production expansion pace.

The current conditions including high crude oil prices and OPEC output above 31 million bpd are favorable for OPEC to secure robust oil revenues. The 12 OPEC members' output in October came to 31.16 million bpd, remaining above 31 million bpd since the beginning of the year. As a matter of fact, however, Iran's output has substantially declined on economic sanctions led by the United States and Europe, while some other OPEC members such as Saudi Arabia and Iraq have expanded output to make up for the decline. We should pay attention to such remarkable changes in the country-by-country breakdown of OPEC crude oil output.

But the high production level has far exceeded the 12 OPEC members' output ceiling at 30 million bpd. It also represents a wide excess over the call on OPEC for 2012, which is also estimated at 30 million bpd based on global oil demand, non-OPEC oil output and OPEC natural gas liquid production. In this sense, the global oil supply-demand balance might have eased so far in 2012. At the same time, we see a growingly strong incentive for OPEC to maintain crude oil prices at the present high levels. For Persian Gulf oil producing countries, particularly, crude oil price levels required to achieve balanced budgets might have steadily risen on a social spending expansion to stabilize their domestic situations under the impact of the Arab Spring.

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Under such situation, OPEC is likely to take oil supply and demand adjustment and other market measures while watching changes in the supply-demand balance and in crude oil prices. The current conditions are favorable for OPEC at present, indicating that OPEC is unlikely to make any major policy change at its next meeting on December 12. But how OPEC will respond to market changes in and after 2013 will attract much attention.

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