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## Crude Oil Price Trends and Their Impacts on LNG Prices in 1st-Half 2015

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Prices in the international oil market in the first half of 2015 were far lower than a year earlier. The daily closing levels of the front-month futures price averaged \$59.4/barrel for the benchmark Brent crude oil and \$53.3/barrel for the other benchmark of West Texas Intermediate (WTI) in the January-June 2015 period, down \$49/barrel (45%) and \$47/barrel (47.0%) from the same period in 2014 respectively. Both prices nearly halved year on year. Brent ranged from \$46.6/barrel (January 13) to \$67.8/barrel (May 6), with the low-high gap exceeding \$21/barrel. The price in the first half of this year was far more volatile than a year earlier when the gap was limited to \$10/barrel (though far less volatile than in the second half of 2014 when the price plunged from around \$100/barrel).

Crude oil prices continued their rapid decline from the second half of 2014 to early 2015 and remained at bottom levels between the second half of January and March before rallying gradually. Behind the stall and rally, market participants interpreted the rapid price plunge as an overshoot, saw the emergence of demand for building up inventories in response to the rapid price decline and growingly expected that the rapid U.S. shale oil production expansion pace would decelerate in response to the rapid price decline. As signs of leveling-off or falling U.S. crude oil output were interpreted as indicating some modulation in shale oil production as the largest driver of the oil price plunge between late March and May, the way was paved for oil prices to rise further. Oil prices then reached the abovementioned peaks for the January-June period. But their rally steamed out later, with the Brent price seesawing mainly within the \$60-65 range. Behind the seesaw trend, market participants have basically believed that a substantial oversupply still exists in the market and have growingly interpreted the firm U.S. shale oil production as indicating shale oil's stronger-than-expected resilience against low prices. Furthermore, Saudi Arabia and other major members of the Organization of the Petroleum Exporting Countries are still willing to maintain or expand their oil output to secure market shares.

In June, bearish demand-side factors grew remarkably, including the European economy's destabilization triggered by the Greek sovereign debt problem, as well as China's decelerating economic growth. As the deadline for an agreement on Iran's nuclear development program has been postponed until July 7, oil market participants have become conscious of a possible end to Western

economic sanctions on Iran as a result of the nuclear negotiations. This indicates that Iranian crude oil will come back in the international market in the not-so-distant future, expanding the whole of oil supply. The possible end to the Iran sanctions has begun to influence the market. At present, crude oil prices have been seesawing. Apart from uncertain geopolitical risks, factors exerting downward pressure on oil prices are growing dominant.

The crude oil price decline in the first half of this year has already begun to produce various impacts. A major example is that Asian liquefied natural gas (LNG) prices have dropped substantially as most Asian LNG supply is based on long-term contracts that adopt LNG prices' linkage to crude oil prices. Crude oil price changes are reflected in LNG prices after a certain time lag. Therefore, LNG prices have logged particularly remarkable falls since the second quarter of this year. For example, the average price of Japan's LNG imports (covering both long-term contract and spot imports) fell to \$8.9 per million British thermal units in May, almost halved from \$16/MMBtu in the same month last year. LNG prices under long-term supply contracts are still relatively higher than spot prices that directly reflect the supply-demand balance in the LNG market and have fallen below \$8/MMBtu. Undoubtedly, however, the crude oil price plunge has substantially lowered absolute Asian LNG procurement prices and nominally eliminated the so-called Asian premium of LNG prices (Asian LNG prices' excess over prices in other regions), which has been a controversial topic.

Petroleum product prices have also declined in line with the crude oil price plunge. Japan's regular gasoline price (the nationwide average including tax) fell from a level close to 170 yen per liter in June 2014 to 134 yen in February this year. Petroleum product prices in Japan are also affected by exchange rate fluctuations. As the dollar rose from the 100-105 yen range in the first half of last year to more than 120 yen, the yen-denominated gasoline price fall has not been as large as crude oil price drops in dollars (the gasoline price includes various taxes that also work to make it difficult for the gasoline price to reflect the crude oil price plunge).

On a macroeconomic basis, the crude oil price decline brings about an overall energy cost drop through falls in petroleum product and LNG import prices as mentioned above. This basically provides "tax cut effects" for ordinary households and consumers, as well as cost cuts, profit improvements and enhanced competitiveness for energy-consuming companies. Furthermore, the crude oil price decline and the subsequent LNG import price fall result in fuel import payment drops and trade balance improvements for energy-importing countries. Japan's trade deficit totaled 1,656 billion yen in the January-May period of this year, plunging by 5,138.1 billion yen or 76% from a year earlier. Japan, which had been a trade surplus country until FY2010, plunged into a heavy trade deficit due to a crude oil price spike as well as a substantial increase in fossil fuel imports to make up for the absence of nuclear power generation after the March 2011 Fukushima nuclear plant accident. Japan's trade balance, though still remaining in the red, improved substantially in the first half of this year, indicating that the Japanese economy has greatly benefited from the crude oil price decline.

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The crude oil price trends have thus already exerted great impacts on various areas and are set to bring about various spillover effects for other energy markets and macroeconomic areas depending on future developments. The low crude oil prices can also be expected to affect future oil prices by stimulating demand and discouraging investment through supply and demand feedback effects. Therefore, we will have to closely watch crude oil prices in the second half of this year.

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