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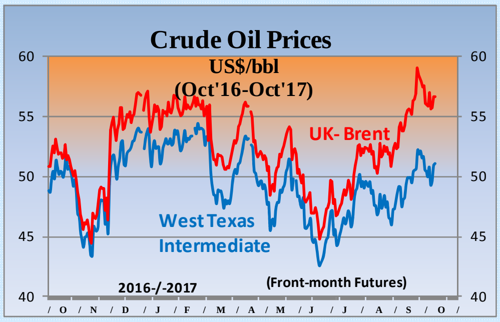
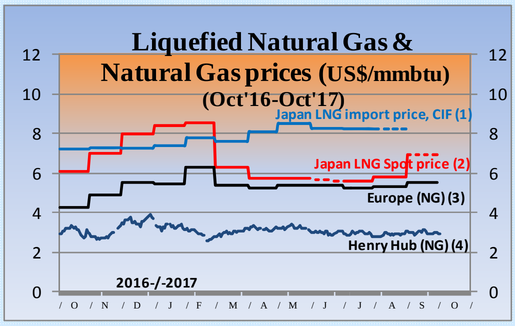
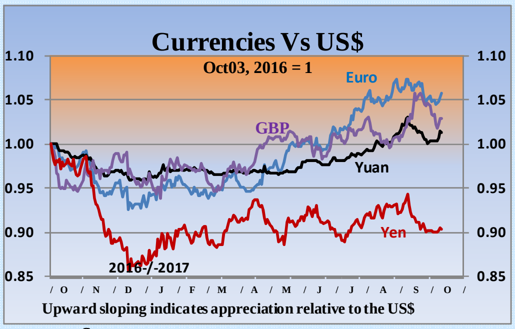


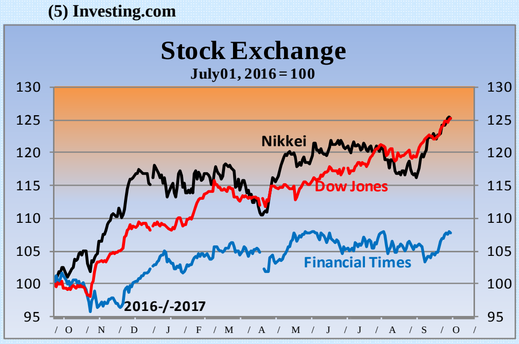
Source: DOE-EIA, NASDAQ



Sources:
(1) Ministry of Finance "Japan Trade Statistics"
(2) Ministry of Economy, Trade and Industry
(contract month basis)
(3) Estimated by World Bank and World Gas Intelligence
(4) DOE-EIA, NYMEX (Front-month Futures)
(5) Investing.com



Source: x-rates.com



Source: Financial Times

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IEEJ JAPAN

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The IEEJ organized the German Japanese Energy Transition Council and Japan-Saudi Arabia Hydrogen Ammonia Master Plan Workshop. Policy proposals are due to be finalized on the respective themes within this fiscal year.

1. Report on the Oxford Energy Seminar

Sachi Sakanashi
Senior Researcher, Manager,
Research Group, Acting President, JIME Center

From September 11 through 20, the Oxford Institute for Energy Studies of the UK held the 39th Oxford Energy Seminar, attended by some 40 participants from 20 countries, who actively discussed a wide range of energy-related topics each day. Lectures were given by prominent experts including top managers of global energy firms. In addition to the lectures themselves, the event provided a rare opportunity for valuable learning through questions and answers and fascinating discussions with participants from oil and gas companies, engineering firms, and think-tanks, and themed group discussions among participants.

The participants were mainly interested in “the future of the energy world.” Questions raised included: How fast will renewable energies expand, driven by climate change? How will US shale development, which seems “irrational” in that production increases even if oil prices fall and investment continues even if unprofitable, transform the oil market? With the commoditization of LNG caused by increased output, shouldn’t oil-linked LNG prices be abolished?

Discussions also covered the role of oil companies in the changing world of energy and how they should make profits in the low oil price environment. It was pointed out that in Europe, where ambitious zero emission policies are being pursued, securing skilled staff is becoming a challenge for oil companies.

One of the key points of interest throughout the seminar was the energy situation in China and its future course. The topics discussed included how China's “de-fossil” policy will unfold to fight climate change and air pollution, how fast the recently announced shift to EVs will proceed, and whether China will continue to lead the world economy instead of the US. It was also pointed out that China's One Belt One Road initiative reflects the new superpower’s intention to establish itself first as an economic leader. The possibility of China replacing US to intervene in the security of the Persian Gulf was also discussed.

Regarding the situation of the Persian Gulf, on which Japan and many other Asian countries depend for energy, many discussions referred to the fact that the Trump administration's Middle East policy, including the handling of the Iran nuclear deal, is still unclear and uncertain. However, Saudi Arabia and others whose relations with the US significantly deteriorated during the Obama era apparently have high hopes for the Trump administration. At home, the Trump administration is adopting energy policies that could be considered as “pro-oil,” and is contemplating easing the fuel economy standards (the CAFE standards) that were toughened under the pro-environment Obama administration. The future policy of the Trump administration was also one of the main interests throughout the Seminar.

2. Developments in Nuclear Power

Tomoko Murakami, Manager
Nuclear Energy Group, Strategy Research Unit

On September 18, at the 61st General Conference held at its headquarters in Vienna, the International Atomic Energy Agency (IAEA) reappointed Yukiya Amano for a third term. He has been Director General since 2009. During the five-day period to the 22nd, topics of interest for all nuclear power user countries were discussed, such as at the forum hosted by the International Nuclear Safety Group (INSAG), including the lessons for radioactive waste management facilities based on past accidents and fruitful dialogues between regulators and operators. As the leader of the IAEA, an international organization dedicated to observance of the 3S policy for nuclear use (safety, security, safeguards), the Director General is expected to play a leading role in tackling various problems in the next four years.

On September 14, the Atomic Energy Commission released the White Paper on Nuclear Energy (2016) for the first time since 2010. The report summarizes the facts about nuclear power utilization in Japan and in the world from 2010 to the end of 2016, and covers a wide range including the Fukushima Daiichi accident and the efforts to contain it, and the subsequent discussions on nuclear policy in Japan.

While much of the report overlaps with the nuclear power section of the annual Energy White Paper published by the Agency for Natural Resources and Energy, the Commission resumed publishing the White Paper after a seven-year moratorium citing the importance of “providing scientifically accurate and well-founded information” and “its accountability to the public” as reasons. “Providing accurate information based on scientific evidence” is a basic principle stated in the Commission's Basic Policy for Nuclear Energy released in and approved by the Cabinet in July, but to fully observe this principle, it will be necessary to continuously update the various information quoted in the White Paper. The Atomic Energy Commission is expected to demonstrate leadership in making efforts that are continuous and effective, and not temporary.

Emerging countries are continuing to introduce nuclear power at a brisk pace. Pakistan's Chashma Unit 4 and China's Fuqing Unit 4 entered commercial operation on September 8 and 18, respectively. Construction of Chashma Unit 4 started in December 2011 and Fuqing Unit 4 in November 2012. The lead-time of five to six years from groundbreaking to completion is surprising or expected?

Considering that the plants which entered operation in the 1980s in Germany, France, and Japan had a similar lead-time, the construction period of the Pakistani and Chinese plants is not surprising. In Japan, discussions have begun on reviewing the Strategic Energy Plan, including nuclear power. In South Korea, President Moon is proceeding with policy discussions to shift from nuclear and coal-fired power to renewables and LNG. As Japan and South Korea spend much time discussing nuclear use policies, emerging countries are steadily accumulating technological capabilities.

3. Recent Developments in the Oil and LNG Markets

Yoshikazu Kobayashi, Senior Economist, Manager
Gas Group Fossil Fuels & Electric Power Industry Unit

The US was hit by two giant hurricanes in August and September, but oil prices were hardly affected, with WTI remaining in the higher $40/bbl range. Oil prices soared the last time two giant hurricanes hit in 2005, but this time, the market was apparently more conscious of the current supply glut and the decrease in demand resulting from the shutdown of hurricane-hit refineries.

The hurricanes, of course, did have some impact on the international energy market. As a result of a drop in refining capacity of almost 40% in the US Gulf Coast, US gasoline prices rose to more than a two-year high of $2.60/gallon, and due to a huge decline in exports from the Gulf Coast due to reduced refinery operation, Central and South American countries, which depend heavily on US products, are rushing to secure substitutes. The drop in exports from the Gulf Coast also contributed to the recent rise in international spot LNG prices mentioned later. If the Asian market grows more dependent on American LNG, Japan must prepare for the impact of hurricanes in this season as a significant risk for LNG procurement.

Prices remain low in the international oil market, but the demand-stimulus effect of the low prices is starting to appear on the demand side. The IEA has revised upwards its forecast for global oil demand growth for the third consecutive month since July 2017, and estimates growth of 1.6 million barrels year-on-year in the latest outlook. OPEC has also raised its estimate for global oil demand growth for 2017 by 150,000 bbl/day in the past two months to 1.42 million bbl/day year-on-year. Owing partly to these upward revisions, Brent has risen to the higher $50 range.

China is reportedly considering a ban on the sale of vehicles powered by internal-combustion engines in the country. While China is accelerating the switch to EVs as a government policy, the planned ban is unlikely to disrupt the country's oil demand soon, as it is not realistic to ban engine-powered vehicles in the near term with EVs accounting for just 1.5% of total vehicle sales as of 2016, and the domestic demand for gasoline accounting for just a quarter of the total domestic oil demand. However, this move confirms the Chinese government’s policy to accelerate the switch to EVs and reduce engine-powered vehicles, and should not be treated lightly. Together with Britain and France which announced this policy earlier, China's plans for introducing EVs and its actual progress continue to require close attention.

Spot LNG prices in Northeast Asia are rising to above $8/mmbtu at this time of writing. One of the reasons, in addition to the decrease in American LNG exports due to the hurricanes, is that spot LNG prices are now considered a bargain with the rise in oil and coal prices. As supplies start to come in from new projects, a further rise in prices is unlikely, but not entirely impossible if the new projects face production troubles as they did last year. The market is likely to remain volatile in the near term.

4. Update on Policies Related to Climate Change

Takahiko Tagami, Senior Coordinator, Manager
Climate Change Policy Research Group
Global Environment and Sustainable Development Unit

On September 10, the 46th Session of the Intergovernmental Panel on Climate Change (IPCC) in Montreal, Canada, agreed the outline of its Sixth Assessment Report. The report is due to be released in 2021 following the selection of authors and the reviews of draft. Other topics of the Montreal session were the strengthening of financial stability of the IPCC and the alignment of its work with the global stocktake cycles (five-yearly assessments of progress for achieving the purpose and long-term goals of the Paris Agreement).

The discussion on the financial stability of the IPCC was triggered by President Trump's budget proposal which eliminates US contributions to the UNFCCC and IPCC. The US funded 45% of the IPCC's budget last year. On September 7, other countries including Japan were reported to be preparing to fill the funding gap to avoid a budget shortfall for the IPCC.

In the US, the Senate Appropriations Committee voted to contribute 10 million dollars to the UNFCCC and IPCC. An amendment had been submitted by a Democrat to reverse President Trump's budget plan which totally eliminates US contributions to the UNFCCC and IPCC, and the amendment was approved by the Republican majority Appropriations Committee by 16 votes to 14. The House of Representatives, however, did not reinstate the eliminated budget. Thus, the final outcome for the budget now hinges on discussions between the two chambers of Congress. Meanwhile, the amendment for a 750 million-dollar contribution to the UN Green Climate Fund was denied by the Senate Appropriations Committee, with the results being the same for both houses.

In China, the National Development and Reform Commission (NDRC) postponed the start of the National Emissions Trading Scheme to November, reportedly due to a lack of appropriate data on emissions and output from each sector. The NDRC also said it plans to improve the scheme, activate trade, and strengthen regulation by 2020. The Scheme was originally planned to include companies in eight sectors with annual energy consumption of more than 10,000 tonnes in coal-equivalent, but due to the lack of appropriate data, it will cover only three sectors at the outset, namely electricity, aluminum, and cement.

In Japan, the first meeting of the Round Table for Studying Energy Situations was held on August 30. While the Strategic Policy Committee of the Advisory Committee for Natural Resources and Energy will identify issues for achieving the 2030 targets, the Round Table will consider the global energy and environmental trends toward 2050, given that major developed countries have begun to announce their long-term strategies based on the Paris Agreement. The Round Table will consider geopolitical risks, climate policies, the business strategies of major players, and the energy and environmental strategies of major countries, and formulate a comprehensive strategy of the government, institutions and industries so that Japan can lead the global community in innovation, human resource development and contribution to global emission reductions.

5. Update on Renewable Energies: Japan-Germany and Japan-Saudi Arabia Collaborations

Hisashi Hoshi, Board Member, Director
In Charge of New and Renewable Energy
& International Cooperation Unit
Yoshiaki Shibata, Senior Economist, Manager

German Japanese Energy Transition Council: Meeting in Tokyo

On September 3 and 4, the third meeting of the German Japanese Energy Transition Council was held at the IEEJ. The Council was established in May of last year with the assistance of both governments to answer the question of how to achieve the long-term targets in the countries' energy policies. The Council set four research topics (comparison of scenarios between Japan and Germany, analysis of the socio-cultural background of the energy policies, the role of old and new players in the electricity market, and energy conservation), and have commissioned research to consortiums of research institutes from both countries.

At the meeting in Tokyo, the consortiums presented their (draft) final reports on the commissioned research topics. The reports starkly highlighted the difference in approach to energy policy between Japan and Germany. For instance, in Japan, energy policies are drawn up while carefully evaluating the feasibility of targets and social burden, but Germany takes a backcast approach to energy policy by first setting a target and then considering ways to achieve it. Further, in building a new electric power system, Japan places priority on securing baseload power sources including nuclear power and ensuring a stable supply, but Germany considers ways to complement variable renewable energies with other power sources when developing a system. Going forward, the Council will develop a policy proposal based on these reports ahead of the next meeting in Berlin next February.

Japan-Saudi Arabia Hydrogen Ammonia Master Plan Workshop

On September 14, the IEEJ and Saudi Aramco co-hosted a workshop on “CCS and hydrogen in the framework of collaboration in studies on technologies toward a low carbon energy system in Saudi Japan Vision 2030” in Tokyo. The workshop was held as part of the “Study for formulating a master plan for a low-carbon energy system in Saudi Arabia” adopted under METI's infrastructural development and study project for the acquisition of bilateral credits for FY2017 (Study on the quantification of international contributions and assessing the feasibility of JCM).

This study postulates, as one option for Japan's international contribution to reducing GHG emissions, a supply chain for carbon-free hydrogen and ammonia produced through CCS from Saudi Arabian fossil fuels, and evaluates its feasibility.

In the workshop, Saudi Aramco and Japanese hydrogen-related companies confirmed their common understanding on the element technologies in the supply chain including CCS and EOR, energy carriers, and the use of hydrogen and ammonia, and actively discussed technological and economic challenges and future possibilities.

Going forward, the IEEJ will conduct a feasibility study on the supply chain for carbon-free hydrogen and ammonia, and, based on the discussions at the second workshop to be held in Saudi Arabia in December, will finalize the master plan.

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