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Noteworthy Risks of Destabilizing Future International Energy Situation

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On June 17, I was invited to the 57th meeting of the Strategic Policy Committee of the Advisory Committee for Natural Resources and Energy and gave a report entitled “International Energy Situation and Japan's Challenges.” (The report materials and videos related to the report and Q&A sessions are posted on the website of the Ministry of Economy, Trade and Industry. For the materials of the meeting as a whole, please refer to the Strategic Policy Committee of the Advisory Committee for Natural Resources and Energy (57th meeting), Agency for Natural Resources and Energy (meti.go.jp) (in Japanese).)

As the time for my reporting was limited to some 10 minutes, I focused on a few important points. In this essay, I would like to discuss uncertainties about key prerequisites for anticipating the future international energy situation. Amid such uncertainties, Japan must pursue the simultaneous achievement of enhanced energy security and decarbonization. Moreover, Japan is required to make appropriate policy responses with an awareness of the widening gap between ideals and realities, considering the international situation in which the division of the world is deepening.

As a result of Russia's invasion of Ukraine in February 2022, the international energy situation has been driven by significant instability and supply insecurity, resulting in substantial spikes in all energy prices. Crude oil prices hit their highest levels since the 2008-2009 global financial crisis. Natural gas in Europe and global coal prices soared to unprecedented levels. Under these circumstances, energy security came back as a top energy policy priority.

Over about two years since then, however, the energy market has changed again. Crude oil prices have regained some stability, hovering around $80 per barrel. From levels far above $100/bbl in the first half of 2022, crude oil prices have declined considerably. European gas prices, which soared to nearly $600/bbl crude oil equivalent, have fallen sharply to levels below crude oil prices in terms of calorific equivalent. While the natural gas price plunge has been attributed partly to warm winter weather, Europe has a kind of euphoric feeling that the gas crisis has been overcome.

The decline and stabilization of energy prices represent a welcome change and a boon for energy-consuming countries and consumers in many ways. However, it is important to remember that the current price levels of around $80/bbl for crude oil viewed as an important commodity for the global economy and international politics are not necessarily low. From a long-term perspective, the current levels are historically high. This is an important point that should not be overlooked.

Moreover, I feel that various risk factors that could destabilize or substantially push up energy prices seem to be becoming apparent or gradually emerging in the international energy market or the situation where energy prices remain relatively high. In this sense, no optimism can be warranted about the future of the international energy situation.

At the top of the list of various risk factors are geopolitical risks that represent traditional risk factors. Geopolitical risks that could shake the international energy situation in the future include those in the Middle East, such as the escalation of the Gaza crisis and the destabilization of the Middle East situation over Iran. In addition, the fate of the Ukraine-Russia war, in which attacks on energy infrastructure on both sides have continued and intensified, is an important geopolitical risk. Furthermore, geopolitical risks regarding China-Taiwan relations and safe passage through the Taiwan Strait are issues that could have serious implications, especially for East Asia including Japan.

In addition, we should remember energy supply disruptions due to natural disasters and accidents as another traditional risk factor. Supply disruptions caused by natural disasters have shaken the energy market many times in the past. Large-scale accidents that occur in energy supply chains can also have devastating effects. Attention should also be paid to energy supply disruptions due to cyberattacks, although it is unclear whether cyberattacks should be included in accidents or discussed in relation to geopolitical risks.

Among old and new risk factors are the energy market's heavy dependence on some energy suppliers and their relevant market dominance and power. The 1973 oil crisis was accompanied by an OPEC (Organization of the Petroleum Exporting Countries) offensive and an Arab oil embargo. Then, OPEC's market dominance reached its peak. While times have changed, the OPEC-plus group of oil-producing countries still adjusts oil supply and demand to support oil prices. In addition, the world's heavy dependence on limited critical mineral supply sources, such as China, could be an important risk factor for future energy security in a broad sense as demand for critical minerals inevitably increases due to future energy transition.

One of the new important risk factors that need to be paid attention to in the future is the risk of policy changes. This is because policy changes that the market does not anticipate could occur and have significant impacts on the energy supply and demand structure. As for any actual impacts in the future, it is necessary to nail down specific policy changes. The U.S. Biden administration's recent "pause" on liquefied natural gas export licenses may be included in the category of policy changes affecting energy supply. As a major risk of policy change, it is necessary to pay attention to the possibility that U.S. policy will change dramatically depending on the outcome of the U.S. presidential election in November, exerting significant impacts on the international energy situation.

Risk factors that may emerge on the path of promoting the energy transition with high ideals include underinvestment in fossil fuels and the resulting significant tightening of the supply-demand balance. The fossil fuel market has always been cyclical, repeating the tightening of the supply-demand balance and price hikes followed by the easing of the balance and price falls. The easing of the balance and price declines under the COVID-19 pandemic were followed by investment and surplus capacity declines that led to simultaneous hikes in energy prices. The Ukraine crisis has further exacerbated the price hikes. If even necessary investment in the fossil fuel sector is cut amid decarbonization efforts, a supply-demand crunch will occur to push up prices to the disadvantage of the global economy. As fossil fuels are expected to play a key role during the long energy transition, it is crucial to ensure adequate investment in fossil fuels.

In today's world, technological innovation and the subsequent progress in the new information revolution may significantly change the energy supply and demand structure, leading to a major challenge in securing a stable energy supply. Attracting global interest is the possibility that the rapid spread of generative artificial intelligence and the subsequent substantial growth in data

centers and semiconductor production may lead to a rapid increase in electricity demand that could not have been imagined in the past. What should be done to stably cover the electricity demand growth with zero-emission electricity has become a new important challenge for securing a stable global energy supply. In this way, there are many uncertainties in the world that could significantly affect the international energy situation. It is inevitable for Japan and the rest of the world to respond appropriately to such uncertainties.

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