IEEJ e-NEWSLETTER

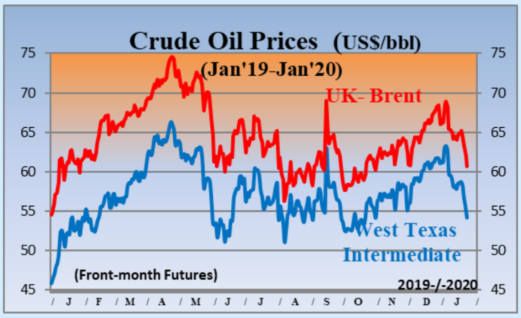
No. 177

(Based on Japanese No. 196)

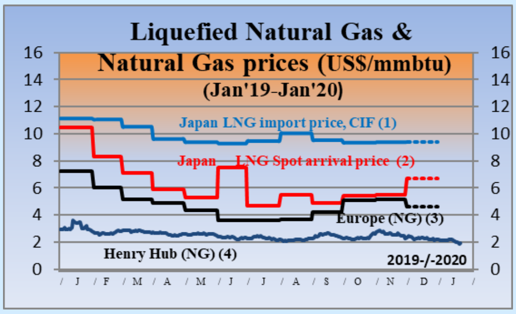
Published: January 29, 2020

The Institute of Energy Economics, Japan

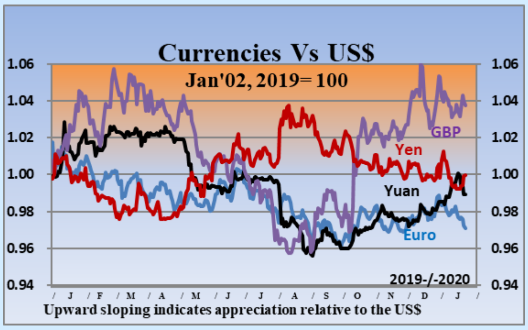
(As of January 24, 2020)



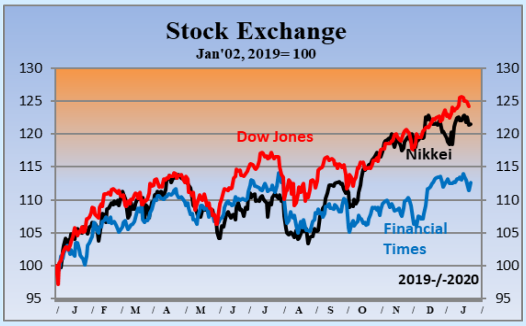
Source: DOE-EIA, Financial Times, NASDAQ



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



Source: x-rates.com



Source: Financial Times

Contents

Summary

II. Japan’s Energy Industries and Challenges

1. Oil Industry

While the domestic demand for petroleum products continues to decrease, the improvement of international competitiveness and the strengthening of disaster preparedness are the industry’s short-term challenges, while reconstructing its business foundation is a major long-term challenge. The industry is making steady progress to adapt to the International Maritime Organization (IMO)’s new regulation on fuel for ships.

2. Electric Power and Gas Industries

When price trends in various new markets become clear, the electric power industry plans to start discussing mid- to long-term issues. Challenges for the gas industry include promoting competition by introducing a preferential wholesale system called the “startup wholesale system” and discussing the proposed introduction of a band-based calorific value regulation.

III. International Politics, Geopolitics, and Energy

1. US: The Presidential Election and Its Impact

The impeachment trial of President Trump will open in the US Senate. The course of the presidential election and the trial must be closely monitored, as well as the future of the shale revolution.

2. EU: The Future of the European Green Deal and UK-EU Relations

For the European Green Deal, the details of the climate legislation bill and the size of the fund to be discussed within the multiannual financial framework deserve attention. Regarding UK-EU relations, will the negotiations be conducted in line with the political agreement?

3. China: A Landmark Year, Fulfilling the Public Promise and US-China Relations

2020 is the final year for fulfilling the domestic promise to double the GDP from 2010 levels and the international promise to meet the action target for preventing global warming. Whether the US-China trade war stops or intensifies again must also be watched.

4. ME: Return of the Arab Spring and the Situation in the Persian/Arabian Gulf

The future course of anti-government protests in the Middle East is uncertain. In the Persian/Arabian Gulf, tensions may rise due to the US-led maritime security initiative. Reforms by the Saudi Crown Prince may draw an angry reaction from the country’s conservatives.

5. Russia: Challenges Facing the Putin Administration in Its 20th Year

There is increasing discontent with the long-ruling Putin administration as the economy falls deeper into recession with no prospects for mending relations with the West. The course of Russia’s anti-US, pro-China policy also deserves attention.

II-1. Oil Industry

Yoshihiro HASHIZUME
Secretary General
The Oil Information Center

The total demand for fuel oil in Japan during the period from January through October 2019 amounted to 136.27 billion L, 2.2% down from the same period of the previous year. The total demand for fuel oil in Japan in FY2018 was 167.66 billion L, 2.6% down from the previous fiscal year and 32.8% down from the peak in FY1999. According to a forecast by the Agency for Natural Resources and Energy in April 2019, the domestic consumption of fuel oil is expected to continue decreasing at the annual rate of 1.3% until FY2023.

The reorganization of primary oil distributor companies triggered by the withdrawal of foreign majors due to falling domestic demand appears to have been halted in April 2019 by the establishment of the Idemitsu-Showa-Shell group, which, together with JXTG Nippon Oil & Energy Corporation which will change its name to ENEOS in June 2020, now forms a part of Japan’s primary oil distribution structure dominated by two giants. Yet, as indicated by JXTG’s announcement that it will discontinue refinery operations at its Osaka Refinery as domestic demand continues to fall, the oil refineries in Japan remain under pressure and need to strengthen their international competitiveness through measures such as optimizing refinery capacity. In the long run, progress in measures to conserve the global environment and the expanded use of next-generation cars such as EVs are expected to drastically revolutionize the choice of energy options along with the movement toward decarbonization. Therefore, both the JXTG group and the Idemitsu group, anticipating that domestic oil demand will halve from its present level by 2040, are preparing to reconstruct their businesses, seeking to increase their engagement in comprehensive energy businesses and expand into the renewable energy sector and power retail sector, for example, and also to strengthen their manufacturing of raw materials such as base chemical products and highly functional materials. In 2019, their demonstration experiments in car-sharing services, assuming the use of next-generation cars, attracted attention: JXTG performed a demonstration in Hiroshima called “Share cars ready for delivery” while Idemitsu performed a demonstration with two-passenger super-mini EVs in Hida-Takayama called “Auto Share.” Both companies plan to roll out the services nationwide in the future and to use their gas station networks.

Gasoline prices in Japan in 2019 moved as follows: prices in January were in the 140-145 yen range. The lowest price of the year, 142.5 yen per liter, was recorded on January 21. As crude oil prices rose, however, gasoline prices rose to 145-150 yen in April and May. The highest price of the year, 150.4 yen per liter, was recorded on May 13. Later, prices moved generally around the 145 yen level. From early December, prices moved around 147 yen. As a result of the reorganization of domestic players and the liquidation of surplus refinery capacity, the supply and demand for petroleum products in Japan has become more balanced, and prices now better reflect the refinery cost and the cost at the primary oil distribution companies. Retail prices of petroleum products in Japan are now far better linked with crude oil prices. Although the financial performance of oil companies is largely influenced by the term-end evaluation of inventory based on the prevailing crude oil prices, the oil industry is expected to steadily strengthen its competitiveness and reconstruct its foundation while securing considerable profits.

The greatest short-term challenge for the oil industry is to adapt to the IMO’s new regulation concerning the fuel for ships, which will come into force in January 2020. In the past, fuel with sulfur content of up to 3.5% could be used for ships in normal sea areas, but the new regulation requires that the content be lowered to 0.5% or less. In Japan, refineries have already adapted to this new regulation, and the switch to low-sulfur fuel is progressing smoothly. However, there are concerns about major impacts on the earnings structure of the oil industry in the future through the surplus inventory of high-sulfur heavy oil C and the rising prices of middle distillate products (such as diesel oil and kerosene). The prices of fuel for ships are eventually determined in global markets, but it is hoped that the increase in costs are fairly shared by the parties concerned, including shippers and consumers, as costs for better environmental conservation.

In 2019, Japan again suffered many natural disasters such as Typhoon No. 15 in September and Typhoon No. 19 in October. During the resulting emergencies, petroleum products became “the last resort” for energy supply. Therefore, improving the resilience of supply networks remains a major challenge.

II-2. Electric Power and Gas Industries

Junichi OGASAWARA, Senior Research Fellow
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By April 2020, the electric power industry will complete the legally required separation of power generating companies from T&D companies. The industry is highly regarded for having implemented proper measures with various aspects. The main future challenge will be to keep raising efficiency while handling internally more of the tasks that have been outsourced.

Regarding the new markets established according to decisions made by the policy subcommittee to complete the reforms of the electric power system the Subcommittee on Policies for the Completion of Power System Reforms ("Policy Subcommittee"), trading has already started in three of them: the baseload power market, the indirect power transmission right market and the non-fossil certificate market. Milestones scheduled for FY2020 include the start of deliveries in the baseload market, the holding of main auctions in the capacity market for FY2024 capacity offers, the beginning of wide-area operation by three companies providing tertiary adjustment capability and the start of handling of non-FIT non-fossil certificates, and the setting of mid-term targets for individual power retailers as required by the Act on the Building of Advanced Energy Supply Structures. As the standard levels of market prices determined on the basis of such new mechanisms become clearer, companies will reexamine their business strategies.

As a unit under the Strategic Policy Committee, the Ministry of Economy, Trade and Industry (METI) established the subcommittee on policies for building sustainable power systems. The new subcommittee has begun to address topics such as the transition from the dispatching fee system to the "income cap" system, the introduction of the T&D operator and aggregator licensing system, and an approach to securing investment in power sources. All of these topics concern the mid- to long-term models of electric power businesses. Discussions will focus on providing revenue-related incentives to promote network improvements by using digital technologies to maximize the use of small-scale supply capabilities, and on determining how to secure sufficient investment in power sources and thus assure stable power supplies.

In the gas industry, the government plans to introduce the "startup wholesale system" by March 2020. Under this system, the gas suppliers that used to be called "general gas utilities" in Groups I and II, provided that they are the only city gas supplier or have a majority of city gas supply capacity in a service area of a certain market size, will be obliged to wholesale city gas at a competitive price to small business owners which cannot alone import LNG or engage in third-party utilization of an LNG base (gas retailers that had demand of at least 70 million m^3 in the one-year period immediately preceding the contract period), which such owners need mainly to start the business of selling gas to residential users. This is expected to promote competition even in the Hokkaido, Tohoku and Chugoku regions where there has been no new entrant in the residential sector.

It has been proposed that the existing "standard calorific value regulation system" as of FY2019, which suppresses fluctuations of calorific value by requiring conformance to the standard calorific value per unit volume of gas (as the minimum of the monthly arithmetic mean) may be replaced by the "band-based calorific value regulation system" which would permit gas to be fed into the pipeline provided the fluctuations of calorific value are kept within a predetermined range (band). An interim review of discussions on the pros and cons of doing so will be held in March 2020 followed by a detailed examination of the necessary institutional design for the transition to the new regulation system in FY2020. Although the band-based regulation has the advantage of sparing new entrants the cost of adding LPG to adjust the calorific value, there are challenges such as the need to modify the method of charging consumers and the impacts on some consumers who require accurate management of calorific value. Careful policy-making is required because of the difficulty in uniformly addressing different cases; even under the existing regulatory system, the standard calorific value and its implementation vary.

III-1. US: The Presidential Election and Its Impact

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In January 2020, the impeachment trial of President Trump will open in the US Senate. The trial is unlikely to result in the President being removed from office. However, for all the seats in the House of Representatives and 33 seats in the Senate, particularly for incumbent Republican lawmakers from liberal states and Democratic lawmakers from conservative states, their stance on the impeachment will affect the course of the November election and be key to deciding the composition of Congress in 2021-2022. The President himself will not be "unhurt" even if he is not removed, as voters have lost trust in the process of the investigations leading up to the impeachment. Most importantly, however, the outcome of the presidential election will depend on which of the Democratic candidates, of which there are currently 21, clinches the Party's nomination. Polls show that 56% of Democratic supporters want a centrist candidate to be nominated. It is not clear which group, liberals or centrists, will win the contest through mobilizing campaign staff and gaining votes, raising funds, the ability to promote their beliefs and the feasibility of their policies, and electability, and thus prevail in the preliminaries that kick off on February 3 in Iowa and culminate in Super Tuesday on March 3.

If Democrats win the presidential election, there is concern about the impact on the energy industry as all candidates are pledging tougher climate action. The most progressive candidate has stated that he would declare the climate crisis to be a national emergency. Not so long ago, President Trump declared a national emergency in order to construct the border wall, thus expanding the scope of presidential authority. However, construction of the wall has not proceeded smoothly, showing that a declaration of emergency is not a panacea. Voters must rationally analyze the risks based on an accurate understanding of the limits of what the government can do about private-sector business and through which channels.

Meanwhile, the market is changing, with shale oil and gas development slowing down. While the primary causes are reckoned to be falling crude oil markets and the deteriorating finances of drilling companies, 10 years have passed since the shale revolution. The manufacturing industry has made a comeback thanks to cheap and abundant energy supplies, while coal is being driven out of the US energy system. Indeed, the line-up of players in the energy industry has changed dramatically, due in part to the IoT. Such changes have transformed the country's view of itself from resource-poor to resource-sufficient. However, "revolutions" are inherently short-lived and turbulence may continue for a few decades at most before a new equilibrium is reached. The country is now in a transition stage, and the future equilibrium of the US energy market must be monitored.

Aside from political change, climate change initiatives led by investors and financial institutions also deserve attention. Regarding climate disclosure, which is a much-debated topic in Japan as well, on December 10, 2019 the Supreme Court of the State of New York ruled that ExxonMobil had not made any "material misrepresentations" in its financial report descriptions of the impact of climate change risk on its business activities. In the US, rules on disclosure of non-financial information strictly require companies to disclose factors that could affect their finances, whereas Japan treats corporate decarbonization efforts as a "public good" and encourages companies to disclose them as part of their CSR activities. Europe's approach is similar to the US, and a response based on an accurate understanding is required.

III-2. EU: The Future of the European Green Deal and UK-EU Relations

Kei SHIMOGORI, Senior Researcher
Global Energy Group 1
Strategy Research Unit

The new European Commission led by President von der Leyen, who took office in December after the European Parliament election in May 2019, released a policy statement on the European Green Deal in the same month as inauguration. In relation to the Deal, the Commission is set to submit a climate legislation bill that includes raising the 2030 and 2050 GHG emission reduction targets by March 2020. The European Investment Bank's announcement in November 2019 that it will end fossil fuel financing after 2021 is part of the Green Deal in which the Bank will become a climate bank.

At the European Council meeting in December 2019, the EU failed to agree on the goal of becoming climate-neutral by 2050. The European Commission intends to discuss the matter again in June 2020, but to reach a consensus, it is necessary to present a Just Transition Mechanism (a system including funds to help the energy transition of fossil fuel-dependent regions) that would convince Poland, the only opposing country. However, the scale of the fund will be discussed only as part of the next multiannual financial framework (MFF), and it is not clear whether the fund budget will be agreed by June when the Commission plans to hold the meeting. Debates on the long-term budget will continue.

In the United Kingdom, the ruling Conservative Party enjoyed a sweeping victory in the general election in December 2019. Prime Minister Johnson has said he will complete Brexit by the end of January 2020, and it is becoming more likely that the revised Withdrawal Agreement will pass Parliament. After leaving the EU, the UK will enter a transition period, during which the UK and the EU will negotiate and agree on the future framework for their relations. During the transition period, the UK will be subject to the EU's rules but will not participate in any of its organizations or decision-making. Prime Minister Johnson has said that he will complete the transition period by the end of 2020 without extension, so the next key point is whether the parties can remain on track to reach a deal by the end of June 2020. If this does not happen, and if the transition period is not extended and the parties do not reach an agreement, then the UK would crash out of the EU without any new trade or other agreements.

The revised Political Declaration, which sets out the framework for future UK-EU relations, presents the conditions to be considered, such as trade and economic cooperation with a comprehensive and balanced Free Trade Agreement at its core and mutual links in the area of judiciary, foreign policy, and security. In the energy area, the Declaration mentions electricity and gas, civil nuclear, and carbon pricing. As parameters, reference is made to cooperation between the Parties to support the secure supply of cost-efficient and clean electricity and gas, establishment of a framework to facilitate technical cooperation between electricity and gas network operators and organizations, establishment of a wide-ranging Nuclear Cooperation Agreement between Euratom and the United Kingdom, and cooperation on carbon pricing by linking a UK national greenhouse gas emissions trading system with EU-ETS. The course of negotiations based on the Policy Declaration must be monitored.

III-3. China: A Landmark Year, Fulfilling the Public Promise and US-China Relations

Li ZHIDONG, Visiting Researcher
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At its 15th National Congress held in 1997, the Communist Party of China set two "centenary goals." The first was to build a "moderately prosperous society" by the 100th anniversary of the Party's founding and the other was to become a "great modern socialist country" with the world's greatest national strength and international influence by mid-century. All subsequent leaders have regarded achieving these two centenary goals as a promise to the people in running their governments. 2020 marks the last year of the first goal. The question is, can China meet the goal of doubling its GDP from 2010 levels?

It is estimated that China's GDP had grown by 1.78 times by 2018. In 2019, the GDP growth rate remained at 6.2% up to the third quarter but is expected to decrease to 6.1% annually. For 2020, at the Central Economic Work Conference held in December 2019, the Xi leadership decided to continue to manage the economy based on the policy of "seeking progress while maintaining stability (穏中求進)" and aim for economic growth "within a rational range" that ensures that the target will be met. The actual numerical growth rate target will be decided at the National People's Congress in March 2020, and the Chinese Academy of Social Sciences published studies on December 9, 2019 stating that the target would be around 6%.

Regarding global warming prevention, the point is whether China can achieve the 2020 action target submitted to the United Nations. China has reduced its CO_2 emissions per unit GDP by 45.8% from 2005 levels by 2018, exceeding the 2020 target of a 40-45% reduction two years earlier than scheduled. Meanwhile, the country's non-fossil energy ratio in primary energy consumption has risen to 14.3%, but is still below the 2020 target of 15%. Energy consumption per unit GDP has fallen by 2.7% year-on-year and the percentage of non-fossil power generation has risen by 1.5 points to 28.2% up to the third quarter in 2019, but energy efficiency and renewable energy development will continue to be promoted in 2020. Moreover, as a self-acknowledged advocate of the Paris Agreement, there is widespread interest in the extent to which the country will raise its 2030 target and what kind of decarbonization strategies for 2050 it will submit.

In terms of foreign relations, the key issue is of course US-China relations. On December 13, 2019, the two governments announced that they had reached a first phase deal. Accordingly, they both cancelled imposing the rest of the "fourth round" of additional tariffs scheduled to be introduced two days later, the 15th. The United States further announced that it would halve the rate of additional tariffs imposed on 120 billion dollars' worth of Chinese goods in September 2019 from 15% to 7.5%. This was the first time for the US to lower tariffs since the trade war started in July 2018, and China highly evaluated this move as the first step toward abolishing the additional tariffs completely. Meanwhile, China has announced that it will import more US agricultural produce and industrial products but has not mentioned any numerical targets such as increasing imports by 200 billion dollars over 2 years, which has been emphasized by the US. This is because China is still concerned over the competitiveness and supply capacity of US products. Hoping that 2020 will see a ceasefire in the trade war, at the same time, China should do what it has to do, and prepare to restart and enter a game of endurance. Prevention is always better than cure.

III-4. ME: Return of the Arab Spring and the Situation in the Persian/Arabian Gulf

Shuji HOSAKA, Senior Research Fellow
President of JIME Center

In 2019, mass anti-government protests erupted one after another in Sudan, Algeria, Egypt, Iraq, Lebanon, and Iran, causing many deaths in each country. The protests were quelled by force in Egypt and Iran but resulted in the resignation of the president in Sudan and Algeria and of the prime minister in Iraq and Lebanon (in Iraq, even the number of casualties is unknown due to an information blackout). As the protests were caused mainly by the deteriorating economy including unemployment and soaring prices, and as governments have presented no fundamental solutions, the protests could restart at any time even in regions where they have been put down.

While the Iran-US and Iran-Saudi conflicts in the Gulf have begun to ease, the war of words continues on both sides, with any improvement in relations still a distant prospect. Now that the US-led maritime security initiative is in full operation, any misstep could break the delicate balance. President Rouhani of Iran visited Japan in December 2019, and Prime Minister Abe is said to be visiting Saudi Arabia and other countries in the first few weeks of 2020. Japan must demonstrate its readiness to play an active role in resolving the conflict between the two countries.

2020 is the year of the US presidential election, and whether President Trump, who is strongly anti-Iran, will be re-elected could alter American policy toward Iran, including the course of the JCPOA. Iran will also hold an election for its parliament and the Assembly of Experts, the outcomes of which could be determined by Iran’s economic situation and foreign relations, and contrarily, the election results could affect Iran’s diplomatic policies.

Yemen is in a military stalemate. The progress of negotiations between the legitimate government and the Houthis is vital to resolving the situation. Iran could hold back its support for the Houthis due to domestic tensions. Meanwhile, as the chair of the G20 Summit this year, Saudi Arabia will want to avoid being labeled as the cause of the Yemeni humanitarian crisis. However, as this is a war which Saudi Arabia began for a cause (or so they claim), the country needs to achieve something, or at least save face for the leaders who started the war.

The reforms led by Crown Prince Muhammad are under way in Saudi Arabia, and the issuing of tourist visas and Saudi Aramco’s IPO got off to a good start. However, the country’s politics and administration must be watched as the radical reforms could enrage the conservatives.

As for other countries, Dubai will hold an expo starting in October 2020 and Qatar will host the Soccer World Cup in 2022. The UAE-Qatar relationship is considered the key to solving the Qatar crisis, and the focus is on whether Saudi Arabia can persuade the UAE to agree to normalize relations with Qatar.

III-5. Russia: Challenges Facing the Putin Administration in Its 20th Year

Shoichi ITOH, Manager, Senior Analyst
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The base of the Putin administration is starting to crumble. Although the ruling party, United Russia, narrowly won all the gubernatorial contests in the regional elections in September 2019, the government was denounced both within and outside the country for blatant intervention in the elections amid rising public criticism of the government. One of the reasons for President Putin's declining popularity is the prolonged economic recession under the West's economic sanctions triggered by Russia's annexation of Crimea in March 2014. Russia's GDP and disposable income grew by only 1.1% (October 2019) and 0.2% (September 2019) year-on-year, respectively. Another reason is the growing discontent among the people, particularly the younger generation, with political stagnation as the long-term administration, now in its 20th year (including four years of Putin as prime minister), becomes increasingly authoritarian.

On December 9, the quadrilateral conference on the ceasefire in eastern Ukraine was held in Paris for the first time in three years. French President Macron and German Chancellor Merkel intermediated the first face-to-face meeting between the new Ukrainian President Zelensky, who took office in May 2019, and President Putin. Its main focus was the granting of "special status" to the two eastern Ukraine provinces of Donetsk and Luhansk, of which 30% are under the effective control of the pro-Russian armed group based on the Minsk Agreement of February 2015. President Zelensky demanded that Russia cede control over the border between the provinces and Russia prior to holding a local election, but no agreement was reached as President Putin demanded that elections be held first. After the meeting, it was announced that the government forces and pro-Russian forces would implement a full and comprehensive ceasefire and exchange all conflict-related detainees within 2019, but many doubt this will happen.

On December 2, Power of Siberia, a 3,000 km-long gas pipeline in the Russian Far East extending to China (agreed by Gazprom and CPNC for a 30-year term and maximum annual capacity of 38 billion m^3 immediately after Crimea was annexed in May 2014) opened. President Putin and President Xi Jinping appeared on international television celebrating the opening as a symbol of China-Russia partnership. Gazprom rushed to open the pipeline, as European countries are diversifying their gas import sources and supplier countries are competing to enter the Chinese gas market. However, some question the profitability of the project and suggest that the political motive of restraining the West was the more important factor driving the project. Today, the West including the US is becoming wary of China and Russia heading toward a "quasi-military coalition." Meanwhile, some Russian experts argue that Russia should restore a military balance in which Russia keeps China in check, possibly through mending US relations and building stronger relations with India.

Following the expiry of the US-Russia Intermediate-range Nuclear Forces (INF) Treaty in August 2019, the New Strategic Arms Reduction Treaty (New START) is due to expire in February 2021. As a condition for its renewal, the US is demanding China's participation. Russia is no longer economically capable of escalating an arms race, but China continues to stay out of the Treaty. With the presidential election coming up in November, it will be harder for the Trump administration to take a softer line on Russia in 2020. Whether closer China-Russia relations will make it even harder for Russia to mend relations with the US must be closely monitored.

Past IEEJ Events

Energy and Economy Indicators of Japan

IEEJ Homepage Top

Back Numbers of *IEEJ e-Newsletter*

Back Numbers of *IEEJ Newsletter* (Original Japanese Version - Members Only)

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