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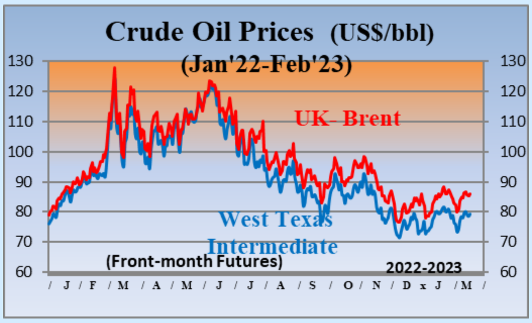

Sources:
(1) DOE-EIA
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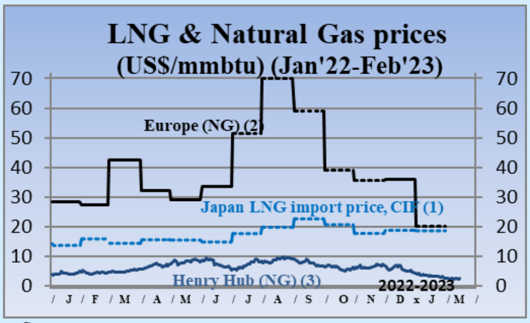
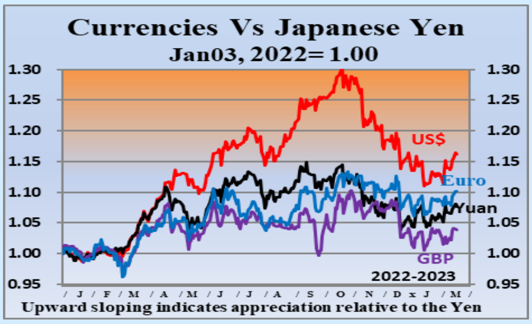


Sources:
(1) Ministry of Finance "Japan Trade Statistics"
(2) Ministry of Economy, Trade and Industry (arrival month basis)
(3) Estimated by World Bank (Netherland Title Transfer Facility)
(4) DOE-EIA, NYMEX (Front-month Futures)



Source: x-rates.com

Sources:
(1) Finance. Yahoo.com
(2) Investing.com

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5. China: NEV Shift Accelerates, Sales May Surpass 10 Million Units This Year

In 2022, NEV sales increased by 93.4% to 6.89 million units, and their ratio of sales grew by 12.2 percentage points to 25.6%. CAAM expects the sales volume in 2023 to be 9.3 million units, and it could even surpass 10 million units.

6. ME: Concerns about the New Israeli Coalition Government

2023 marks the 50th anniversary of the oil crises in the 1970s. A new government was inaugurated at the end of 2022 in Israel, but the hardline policies of right-wing members could make the situation volatile.

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Russia announced measures to counter the price cap mechanism on Russian oil and petroleum products introduced by the EU and others. The National Welfare Fund, whose balance peaked in May 2022, is being diverted to cover the fiscal deficit.

1. Developments in Nuclear Power

Emiri YOKOTA, Senior Researcher
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The basic policy for realizing a decarbonized society was formulated at the Green Transformation (GX) Implementation Council held on December 22, 2022. The policy declared that nuclear power "will be utilized sustainably into the future." The plants that are slated for decommissioning will be replaced, and the operational lifetime of plants will be extended from the current limit of a maximum of 60 years.

Meanwhile, on December 21, 2022, the Nuclear Regulatory Authority (NRA) approved the outline of the proposed safety regulation framework which is compatible with the extended operational lifetime of nuclear power plants. Operating licenses will be reviewed at least every 10 years when 30 years have passed since the start of operation. Revisions to the Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors will be drawn up after gathering input from power companies for submission to the regular Diet session in February 2023. The debate on the extension of operational lifetime should be closely watched.

In Japan, on December 20, 2022, the Osaka District Court issued a temporary injunction rejecting calls to halt Kansai Electric's Mihama Unit 3, the only nuclear power plant in Japan operating beyond 40 years. It was the first judicial decision in the country over a nuclear power plant that has been operating beyond 40 years.

Overseas, on January 9, the Belgian government announced that it had signed a preliminary agreement with France's Engie on key matters related to extending the operational lifetime of two nuclear reactors (Doel Unit 4 and Tihange Unit 3) by 10 years to 2035. The government had decided in March 2022 to keep the two plants in operation until 2035 in response to the drastic changes in the energy situation after the invasion of Ukraine. The present announcement marks the first step toward actually implementing the operational extension.

On January 11, the Swedish government announced an amendment to the environmental law to remove the provisions that prohibit the construction of nuclear reactors outside of the premises of existing nuclear power plants as well as the provisions that limit the number of nuclear reactors in operation to 10. At a press briefing, the prime minister said that the country needs more clean electricity with the ongoing electrification of industry and transport and the shift to non-fossil fuels. The bill is due to be proposed after a three-month public comment period, and the government hopes to implement the amended law in March 2024.

On January 12, South Korea's Ministry of Trade, Industry and Energy released the 10th Basic Plan on Electricity Demand and Supply, which includes the basic direction of electricity supply and demand, a long-term supply-demand forecast, power generation and transmission/distribution plans, demand management, and distributed power sources for the period from 2022 through 2036. Whereas the previous Basic Plan, the 9th, set "an energy transition centered on renewable energy" as its basic policy, the direction was modified in the new Basic Plan to "a feasible and well-balanced power source mix" and "utilization of nuclear power and an appropriate level of renewables," considering economic efficiency, environmental compatibility, and safety in a comprehensive manner and giving top priority to a stable supply.

2. Recent Developments in the Oil and LNG Markets

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After falling as low as $76/bbl in early December 2022, Brent price is hovering around the mid-80 dollars as of late January 2023. The number of new cases of Covid has exploded in China reportedly over 1.1 billion after the Zero-Covid policy was lifted and restrictions on movement were greatly eased on December 7, 2022. Speculation that oil demand will recover as a result of this policy change is pushing up oil prices. It also became clear on January 12, 2023 that the CPI in the US slowed in the previous month, raising market expectations that inflation may ease and a recession may be averted. This is also propping up oil prices. Reflecting less uncertainty over demand, the International Energy Agency revised its 2023 global demand forecast upward to 101.7 mb/d, up 1.9 mb/d from 2022 (1.9%) to its highest-ever level, in its Oil Market Report. Russia's exports remain high at 7.8 mb/d as of December. Among these, 3.1 mb/d are petroleum products, which, like crude oil, will be subject to a price cap from February 5. The introduction of the cap is yet to impact prices significantly, but it could affect market prices especially for gasoil, which is the main product exported to Europe.

In the natural gas market, since late January the US Henry Hub price has been around $3/Mbtu, Dutch TTF around $20, and spot LNG prices for Asia around $25. The average import price for Japan is estimated around $16/Mbtu. Gas prices are fairly stable due to a generally warm winter, increased production in the US, high storage levels in Europe, and stable oil prices. In response to the extreme rise in the TTF price after Ukraine was invaded, the EU is considering developing new price indexes. As LNG is likely to replace Russian pipeline gas, the new price indexes are expected to be driven by international LNG prices. However, TTF and other European prices have emerged as a result of liberalization of gas market, particularly unbundling of the gas businesses, and therefore it will not be easy to develop new indexes while keeping the liberalized gas framework intact.

This year marks the 50th anniversary of the first oil crisis in 1973. What sets the current energy crisis is that it involves not only oil but also natural gas and electricity, and requires the rebuilding of energy security while tackling decarbonization, within the framework of liberalized energy markets. As the West strives to break away from Russian oil and natural gas, Japan's longstanding goal of diversifying supply sources is becoming more important than ever, though the country still heavily depends on the Middle East. Developing resources in relatively low-risk regions such as North America and Australia will become important for Japan, but in the short to medium term, the Middle East will undoubtedly remain key supplier. Even in the medium and long term, the Middle East will remain a key energy trade partner for Japan, considering not only oil and natural gas but also hydrogen and ammonia. Though Japan's demand for oil and natural gas is declining, it goes without saying that it must continue to strengthen ties with key energy suppliers including Saudi Arabia, the UAE, and Qatar, especially when considering hydrogen and ammonia.

3. Update on Climate Change, Energy Conservation, and Renewable Energies

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On February 10, 2023, the Basic Policy for the Realization of GX (green transformation) was approved by the Cabinet. To secure the enormous funds required for investing in GX through public-private sector collaboration, the Basic Policy sets out, under the growth-oriented carbon pricing initiative, three measures, including bold measures to support up-front investment (including investment stimulus combining regulations and support) using GX economy transition bonds (tentative name). The plan is to issue 20 trillion yen of GX economy transition bonds in total for 10 years starting in FY2023. The bonds are backed by the proceeds from the carbon pricing system and will be issued each year within an amount approved by the Diet.

On January 17, European Commission President Ursula von der Leyen proposed a faster and simpler process for the European Commission to approve state aid by Member States, in a bid to counter the US Inflation Reduction Act. She also stated that to support the clean tech transition at the EU-level, a European Sovereignty Fund will be prepared. Behind the proposal to launch the European Sovereignty Fund are (1) concerns expressed by smaller Member States that merely revising state aid rules will allow only the largest EU states to support their domestic industries and create unfair competition in the EU market, and (2) France and others are under pressure to cut their national debt, and therefore cannot provide new funding for their industries and are supporting new EU-level measures. The Fund was initially expected to be agreed upon at the European Council summit on February 9. However, the Council concluded that existing EU funds should be deployed in a more flexible manner, and only took note of the Commission's intention to propose a European Sovereignty Fund before summer 2023, due to opposition from 10 Member States including Germany, which argued that the EU should not solicit new contributions.

Meanwhile, the US government reached its debt limit of 31.4 trillion dollars on January 19, and the Civil Service Retirement and Disability Fund and the Postal Service Retiree Health Benefits Fund began to be used as extraordinary measures till June to prevent a default. If the debt limit is not raised in Congress, the government will need to reduce the budget and set priorities among social security, Medicare, energy security and climate change, and so on.

The green growth strategies of Europe and the US are now at a financial crossroads.

There is growing concern over the raw materials that are essential for decarbonization technologies. In the Transition Metals Outlook, Bloomberg NEF forecasted that the demand for key metals such as copper and aluminum will grow five-fold by 2050 and their market value will triple. The prices of these raw materials are currently rising: according to the IEA's Energy Technology Perspectives (ETP) 2023 released on January 12, the price of lithium, a raw material used to make rechargeable batteries, nearly quadrupled from 2019 to 2022, while the prices of silicon and copper, which are used in solar panels, have roughly doubled since 2020. A stable supply of raw materials is essential to prevent the clean energy transition from slowing down.

ETP-2023 also analyzes the risks and opportunities surrounding the development of clean energy and technology supply chains in the years ahead. Aside from prices, ETP-2023 points out, including: (1) the current supply chains of clean energy and technologies present risks in the form of high geographic concentration of resource mining and processing as well as technology manufacturing, and (2) the current global pipeline of announced projects would fall short of demand for wind components, heat pumps, and fuel cells.

4. Europe and US: European Gas Market in a Temporary Reprieve and Moves Surrounding the IRA in the US

Ichiro KUTANI, Senior Research Fellow
Manager, Global Energy Group 1
Assistant to Managing Director, Strategy Research Unit

The European gas market has calmed somewhat. Although gas prices remain high, as a result of the warm winter, sufficient underground gas storage levels, and China's LNG demand remaining below initial expectations, the price is around $20/MMBtu (at the time of writing). On the supply side, a floating storage and regasification unit (FSRU) arrived in Finland at the end of 2022, and Germany began operating a new FSRU and signed a contract for another one in January. The volume of gas imported from Russia (pipeline + LNG) has dropped greatly and accounted for only 16% of total gas imports as of 3Q 2022, down 27% year-on-year. Europe is increasing imports from the US and others to cover the shortfall, but the situation is now more reassuring because new import infrastructure will soon commence operation. It is interesting to note that, in Germany, all FSRUs installed since the crisis are managed by state-run companies. Germany is striving to improve its energy self-sufficiency through energy conservation and renewable energies. As such, FSRUs will eventually become unnecessary, and by putting them under the management of state-run companies, it will be easier for the government to exit the business. Perhaps this scheme was designed to not only launch LNG imports rapidly as an emergency measure but also to facilitate a smooth exit in the future.

However, this scheme is not enough to guarantee the safety of the European gas market. The Netherlands is considering closing a gas field in 2023, though not a big one. The drop in Russian pipeline gas exports will continue to cause the natural gas supply to tighten worldwide. Without additional LNG supply sources, the supply crunch will continue and take several years to resolve. In addition, there is the risk that rising natural gas demand in China may cause the supply-demand balance to further tighten as businesses recover following the abandonment of the Zero-Covid policy. Large-scale LNG production facilities are currently being installed or planned in Qatar and the U.S.; steady progress is highly anticipated.

There are developments in the U.S. related to the Inflation Reduction Act (IRA). For example, Google and automakers GM and Ford announced that they will join forces to develop standards for virtual power plants (VPP), whose business opportunities are expected to grow with the IRA. The small modular reactors (SMRs) developed by US NuScale have received a standard design approval and are reportedly likely to be eligible for IRA tax breaks when plants are actually built. There is growing attention on the impact of the IRA on other countries. As stated by the CEO of Yara, a major Norwegian fertilizer company that also handles ammonia, "the business environment of the US is better than Europe," companies are coolly weighing which region to invest in. Clean energy investment is certain to gain momentum in the US driven by the enormous funds mobilized under the IRA.

Meanwhile, some point to labor shortages as an issue for clean energy investment. According to a study by the University of Massachusetts Amherst, the IRA will create 9 million jobs in total in the next ten years. The labor market is currently rather tight, with an unemployment rate of 3.5% as of December 2022. Also, there are reports that average wages in the clean energy industry tend to be lower than in the oil and natural gas industries. While the labor market is likely to adjust to structural changes in industry over time, it may struggle to keep up with the rapid changes caused by the IRA, which poses a risk.

5. China: NEV Shift Accelerates, Sales May Surpass 10 Million Units This Year

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According to the China Association of Automobile Manufacturers (CAAM), both automobile production and sales (including exports) increased in 2022 to 27.02 million and 26.86 million units, up 3.4% and 2.1%, respectively, both increasing for the second consecutive year. Of these numbers, the production of new energy vehicles (NEVs: including EVs, PHEVs, and FCVs but not HVs) increased by 96.9% to 7.06 million units, while sales grew by 93.4% to 6.89 million units (including 3.57 million EVs). The percentage of NEVs in car sales rose by 12.2 points to 25.6%, surpassing the government's target of reaching 20% in 2025 by 5.6 points, three years earlier. Driven by last-minute purchases before the purchase subsidy introduced in 2009 ends in January 2023, 814,000 NEVs were sold in December 2022, accounting for 31.8% of the month's car sales. Meanwhile, annual sales of internal combustion engine vehicles (ICEVs) fell by 12.2% to 19.98 million units, declining for the fifth consecutive year after peaking in 2017 with 28.1 million units and falling below 20 million units for the first time in 10 years. The 50% cut in the acquisition tax for ICEVs introduced in June 2022 was not sufficient to stem the move away from ICEVs; the accelerating shift to NEVs has driven the growth of the auto market since 2021.

Behind this trend is the advantage of NEVs over ICEVs in China (refer to the November 2022 edition of this Newsletter). As a result of preferential treatment policies such as acquisition tax exemption and purchase subsidies, as well as corporate efforts, the acquisition and ownership costs of NEVs are now estimated to be 20,000-50,000 yuan (1 yuan ≒ 20 yen) lower than those of gasoline vehicles. When gasoline prices surged temporarily due to the Ukraine crisis, the cost of driving EVs dropped to 15% (normal charging) and 38% (rapid charging) compared with gasoline cars because electricity prices remained stable. The increasing convenience of charging is also having a significant impact. According to the China Electric Vehicle Charging Infrastructure Promotion Alliance and the Ministry of Public Security, the number of chargers rose to 5.21 million by the end of 2022, up 2.59 million units from the previous year, and the NEV fleet grew to 13.1 million units, up 5.26 million units year-on-year. The ratio of NEVs to chargers improved from 3 as of the end of 2021 to 2.5 on a stock basis and to 2 on an increment basis.

Meanwhile, the impact of growing exports resulting from higher international competitiveness cannot be ignored. According to CAAM, the number of vehicles exported in 2022 increased by 54.4% year-on-year to 3.11 million units, and the number of NEVs increased by 199% to 679,000 units, with their share of the total rising by 6.4 percentage points to 21.8%.

In 2023, there are concerns about the negative impact of the last-minute purchases at the end of last year and the spread of Covid to rural areas resulting from the exodus of 2.1 billion people traveling to the countryside during the Lunar New Year. Under such circumstances, CAAM forecasted that auto sales will grow by 3% to 27.67 million units in 2023, of which NEV sales will expand by 35% to 9.3 million units. Meanwhile, some expect that NEV sales may surpass 10 million units. The main reasons include (1) China's supply capacity of NEVs that stably meet diverse needs, (2) the compatibility of NEVs with autonomous driving and ICT, and improved cost competitiveness, (3) higher convenience resulting from longer cruise distance and more extensive charging infrastructure, (4) China's economic recovery from 3% growth last year to 5%, and (5) an increase in exports to Japan and other countries due to higher brand recognition overseas and improved international competitiveness. Also, (6) demand is expected to increase sharply in smaller cities and rural areas where cars can be charged at home. A survey of 2,000 respondents in 49 inland cities by Fidelity International showed that 60% of car owners who are planning to replace the old car with a new car within a year, and 84% of potential new car purchasers who are planning to buy a new car within a year, prefer a NEV (January 12).

Will NEV sales exceed 10 million in 2023? The strength of their sales, along with the impact of the rapid spread of Covid and subsequent recovery, merit attention.

6. ME: Concerns about the New Israeli Coalition Government

Akiko YOSHIOKA
Senior Researcher, JIME Center

2023 marks the 50th anniversary of the 1970s oil crisis. In the early 1970s when global oil demand was growing quickly, resource nationalism rose in the Middle Eastern countries spurred by outcries against the West's rule over their oil resources. This led to higher posted prices of oil, greater participation in development projects as organizers, and nationalization. When the Fourth Arab-Israeli War broke out in October 1973, Arab oil producers announced an oil embargo against pro-Israel countries, sparking turmoil in many consumer countries including Japan. The war ended in about a month, but the world was shocked to see oil being used as a strategic product and realized that oil was now ruled by the oil producers, not the oil majors.

Fifty years later, oil producers are once again at a turning point amid the global trend toward decarbonization. Already, several oil producer countries have declared carbon neutrality goals and are stepping up environmental measures, and the development and utilization of clean energy have become key policy issues. Oil producers are also becoming more supportive of higher prices as they need to secure oil revenues to ensure a smooth energy transition. Oil and gas producer countries are focusing on securing short- and medium-term investments to fully utilize their oil and gas reserves. As the importance of Middle Eastern oil and gas comes under the spotlight amid the Ukraine crisis, it is important for Japan's energy security to support the initiatives of these oil producers during their energy transition.

US-Saudi relations have been cooling since OPEC Plus decided on a major production cut last October, but efforts are now being made to mend relations. In late December, the Commander of the United States Central Command emphasized that there has been behind-the-scenes bilateral cooperation in formulating Saudi Arabia's national and regional security policy. Apparently, this has been prompted by rising Saudi-Iran tensions fueled by Iran suspecting Saudi Arabia of involvement in the anti-government rallies by young protesters since last September. Although these rallies in Iran are weakening due to regulatory clampdowns, the situation remains volatile. Furthermore, the clampdowns on protesters and the execution in January of a British-Iranian dual national suspected of spying are hampering progress in the nuclear deal talks between Iran and the West.

In Israel, the sixth Netanyahu government was inaugurated at the end of December following the fifth general election in three and a half years. However, being a six-party coalition, the government is unstable. To prevent the Supreme Court from invalidating the inauguration of Minister of Interior and Health Aryeh Deri, who has received a suspended sentence, the government has submitted a bill to revoke the Supreme Court's decision. However, this bill is causing controversy in politics and Israeli society as it threatens the democratic principle of mutual independence of the three powers. Furthermore, Finance Minister Smotrich, who is also a second Defense Minister in charge of civilian affairs, and National Security Minister Ben-Gvir are both heads of ultra-right political parties. Their hardline stance toward Palestine may fuel further volatility in the Middle East.

7. Russia: Developments in Russia during the Transition to the Price Cap Mechanism

Sanae KURITA, Senior Researcher
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Western countries critical of Russia's invasion of Ukraine jointly introduced a price cap mechanism for Russian oil. On December 27, 2022, President Putin signed a presidential decree banning exports of oil and petroleum products to all foreign corporate and natural persons directly or indirectly using this mechanism. Oil exports were banned immediately starting February 1, 2023, while the ban on petroleum products will become effective on the date specified by the government after the presidential decree takes effect. The ban will last for five months through July 1, though the target countries other than the United States have not been specified. However, there are also exemption clauses to the decree that allow Russian oil and petroleum products to be supplied based on a special decision by the president.

Russia's Ministry of Finance announced on January 18 that the balance of the National Welfare Fund was $148.4 billion in dollar terms as of January 1, 2023 (equivalent to 7.8% of the GDP forecast for the 2022-2024 federal budget), down $38.1 billion from the previous month. The media has reported that the Russian government has drawn $35.1 billion from the Fund in cash to cover the fiscal deficit last December (January 19, Reuters). Of the balance remaining, only $87.2 billion or 4.6% of the GDP forecast are liquid assets (note by the Central Bank of Russia: the funds in the account with the Bank). The Fund has been built by accumulating part of the tax proceeds from the oil and gas sectors, but the balance has been declining since peaking at $210.6 billion in May 2022.

The World Economic Situation and Prospects 2023 of the United Nations released on January 25 estimates Russia's real GDP growth rate for 2022 at minus 3.5%, not plunging by minus 10-15% despite initial forecasts. The report considered that the impact of the tighter economic sanctions against Russia after it invaded Ukraine was alleviated by strong revenues from the rapid growth of oil exports to China, India, and Turkey and the high oil prices, a stable banking division, and the change in policy from the initial sharp monetary tightening to easing. The report predicts that Russia's real GDP growth in 2023 will be minus 2.9%.

According to the Central Bank (January 25), Russia's current account balance was a surplus of $227.4 billion for 2022, up 86% year-on-year and marking a record high. The trade surplus grew to $282.3 billion as imports from the West shrank due to the sanctions, while foreign currency continued to flow in from oil and natural gas exports (up 66% year-on-year from $170.1 billion). The Bank cited preliminary Eurostat data and said that oil and petroleum product exports to the EU for October-December 2022 decreased 23% year-on-year, that marine transport to Northern Europe was closed, marine transport to Southern Europe decreased to 200,000 barrels/day from December, and that the price cap mechanism banning the provision of marine insurance has slowed Russia's exports to Asia. Gas exports to the EU in October-December 2022 dropped 64% year-on-year but the decline was partially offset by larger gas exports to China than the contracted amounts. The transitional period for the EU's price cap mechanism on Russian oil ended on January 19 and the mechanism will now be applied to Russian petroleum products starting February 5. Will negative GDP growth be kept within minus 2.5% in 2023 as President Putin hopes? The situation will continue to be watched.

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