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TO OUR READERS

Korea-USA-Japan Trilateral Summit at Camp David: Strong Leap towards Global Value Solidarity

South Korea, the United States, and Japan recently and simultaneously announced that a trilateral summit involving President Yoon Suk-yeol of Korea, President Joe Biden of the United States, and Prime Minister Fumio Kishida of Japan will be held at Camp David, the U.S. Presidential Retreat, on Aug. 18. The leaders of the three nations have met during multilateral conferences in the past, but this is the first time they are gathering specifically for a trilateral summit.

Camp David is a historical landmark that has been used by U.S. Presidents to display a sense of intimacy with their invited guests and to forge important agreements that can change the course of world history. The first summit between President Eisenhower and Secretary Krushchev of the Soviet Communist Party was held here in 1959 during the height of the Cold War. In 1978, the 10-day-long discussion at Camp David led by President Jimmy Carter culminated in the normalization of bilateral relations between Prime Minister Menachem Begin of Israel and President Anwar Sadat of Egypt.

The fact that President Biden, who had not invited any foreign leaders to this location since taking office in 2021, has invited President Yoon and Prime Minister Kishida could symbolize the importance of cooperation between the three countries. Therefore, some observers suggest that this summit may have stemmed from President Biden’s intention to leapfrog the trilateral cooperation into a new dimension.

The organization of this trilateral summit was made possible by Korea’s proactive efforts to improve South Korea-Japan relations, one pillar of the trilateral cooperation structure. Unlike the previous Moon Jae-in administration, which allowed the deterioration of Korea-Japan relations, President Yoon, who took office in May last year, took a firm stance to normalize the frozen relations between the two countries and made a landing visit to Japan of this year.

The Camp David summit comes amid recent U.S.-China technological tensions, Russia’s invasion of Ukraine, and, notably, the strengthened alliance between North Korea, China, and Russia in Northeast Asia. The close cooperation of the three countries – South Korea, the United States, and Japan - can cement the deterrence against North Korean nuclear and missile provocations, enhance cooperation for the reform of the global supply chain, and provide another key platform for the global solidarity of free and democratic nations as President Yoon has emphasized since his presidential inauguration.

Based on such close coordination and cooperation, the leaders of Korea, the U.S., and Japan should closely discuss the U.S. government’s imminent export controls and outbound investment regulations against China in the high-tech sectors of artificial intelligence and semiconductors, minimizing any negative impacts that these regulations could have on the businesses and economies of the three countries.

Park Jung-hwan, Publisher & Editor-in-Chief
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President Yoon Suk-yeol attended a series of bilateral meetings with 13 national leaders during the NATO summit held in Vilnius, Lithuania on July 11 and 12 (local time). The discussions aimed to strengthen the supply chains of advanced industries such as semiconductors, electric vehicles, batteries, and energy and to secure new export markets, outlining a comprehensive “sales diplomacy” strategy.

On July 11 (local time), President Yoon made a strong request to the Prime Minister of the Netherlands for investment in a South Korean factory by ASML, the world’s leading semiconductor lithography equipment company based in the Netherlands. He also agreed to strengthen the electric vehicle and battery supply chains with Sweden, Portugal, and Finland, countries known for their rich reserves of key minerals such as rare earths, lithium, and nickel.

Presidential Chief Economic Adviser Choi Sang-mok held a briefing at the press center set up in Vilnius, Lithuania, where the NATO Summit is taking place on July 12 (local time). He highlighted President Yoon’s economic cooperation achievements, stating that “President Yoon will discuss ways to strengthen economic cooperation in separate bilateral meetings with the leaders of 13 countries, even amid his busy schedule.”

On July 11, President Yoon had bilateral meetings with the leaders of seven countries - Norway, Portugal, the Netherlands, New Zealand, Hungary, Romania, and Sweden. On July 12, he is slated to explore practical cooperation measures in a relay meeting with the leaders of six more countries - the U.K., Estonia, Slovakia, Japan, Finland, and Lithuania.

During his luncheon meeting with Dutch Prime Minister Mark Rutte the previous day, President Yoon proposed attracting the ASML’s Deep Ultraviolet (DUV) lithography equipment manufacturing plant to South Korea. He promised tangible investment incentives including financial support, tax deductions, and site support, thus requesting ASML’s investment in his country. ASML, based in the Netherlands, is the world’s leading semiconductor lithography equipment company and is currently considering setting up a new lithography equipment manufacturing plant in Asia.

Furthermore, President Yoon is scheduled to bring up “measures to strengthen the electric vehicle and battery supply chains” through a South Korea-Finland summit following the South Korea-Sweden and South Korea-Portugal summits. The upcoming South Korea-Lithuania summit will table “advanced semiconductor supply chain cooperation measures” as one of the main agenda items.

Senior secretary Choi stated, “Currently, LG Energy Solution, Samsung SDI, and SK on, the three major battery companies from our country, have entered Poland and Hungary and are playing a crucial role in the heart of the European electric vehicle industry,” and that “President Yoon is expected to discuss ways to strengthen the supply chain in a summit meeting with Slovakia, where Kia Motors is pushing for electric vehicle production.”

President Yoon actively pursued ‘nuclear power plant, defense, and infrastructure sales’ targeting the leaders of the Netherlands, Hungary, Romania, Sweden, and Romania, including the Ukraine reconstruction project, also known as “the second Marshall Plan,” which is estimated to be around 1.200 quadrillion won (US$940 billion) in total business scale.

Choi said, “President Yoon explained the excellence of Korean nuclear power plants to the leaders of the Netherlands, Hungary, Romania, and Sweden, who have plans to introduce new nuclear power plants, and proposed cooperation in nuclear power,” and added, “A proposal for nuclear power cooperation is expected in the summit meetings with the U.K. and Slovakia, who also have plans to introduce new nuclear power plants, scheduled for today.”

In particular, Choi added, “In Romania, Korea Hydro & Nuclear Power recently won a tritium removal facility project at the Cernavodă nuclear power plant worth 260 billion won. We requested positive consideration for the participation of our companies in the future nuclear facility improvement project, which is worth 2.5 trillion won.”
Choi also said, “President Yoon promoted the Korean-style Small Modular Reactor (SMR) under development to the leaders of Hungary, Romania, and Sweden, who are planning to introduce SMRs, and asked for interest and support.” and added, “We expect to discuss cooperation related to the disposal site with Finland, which is preparing to operate the ‘High-Level Radioactive Waste Disposal Site’ for the first time in the world.”

During the South Korea-Romania summit the previous day, President Yoon suggested to President Klaus Werner Iohannis the participation of Korean companies, including the Busan Port Authority, in the CONSTANTZA PORT DEVELOPMENT PROJECT, the largest port in the Black Sea, and received a positive response.

Choi also stated, “Due to Russia’s invasion, the Port of Odessa in Ukraine is under blockade, and the Port of Constanta in Romania has emerged as a key logistics base connecting Central and Eastern Europe with the Black Sea. We will concentrate on managing this project through the Ministry of Oceans and Fisheries and other departments, and will support its progress into tangible outcomes.”

President Yoon is planning an official visit to Poland from July 12 to 14, local time, to actively support Korean companies’ overseas advancement, including the Ukraine Reconstruction Project. An economic delegation of 89 members, including Koo Kwang-mo, chairman of LG; Kim Dong-kwan, vice chairman of Hanwha; and Koo Ja-yeon, chairman of LS, will accompany him on his visit seeking business opportunities.

Choi said, “In Poland, which will serve as a hub for the reconstruction of Ukraine, we will discuss concrete plans for our companies to expand through discussions with heads of state and meetings with our companies. Not only construction companies but also IT companies leading smart city construction and the Export-Import Bank, which can support financing like EDCF, will participate.”

In addition to this, President Yoon proposed to each European leader the expansion of complementary cooperation that combines Norway’s green hydrogen infrastructure and Korea’s hydrogen car utilization technology, strengthening green cooperation including carbon capture and storage technology, with Equinor, a Norwegian state-owned energy company, and the expansion of cooperation with Korea in EUREKA, an advanced technology joint R&D platform.

Choi said, “President Yoon intends to strengthen the supply network of core minerals and rare metals in the field of advanced industry with countries that share universal values. We will make every effort to ensure that the cooperative agendas discussed at the bilateral summits held on the occasion of this NATO summit can be turned into tangible outcomes through Team Korea activities in which related ministries and companies participate.”

Meanwhile, on the same day, President Yoon said, “We will expand the sharing of military information with NATO.”

In this regard, the government has decided to participate in NATO’s battlefield information collection and utilization system (BICES). The participation of Korea in BICES was first proposed by Jens Stoltenberg, NATO Secretary-General, in January. BICES is a computer network built for sharing military secrets. NATO member countries and some partner countries are participating. Countries participating in BICES can share information collected by their countries on the system and use other countries’ classified information for decision-making. A high-ranking official from the presidential office said, “The United States and NATO are sharing content related to nuclear power through BICES. If we participate in BICES, we can refer to it when we create and operate the Nuclear Consultant Group (NCG) with the United States.”

President Yoon also said, “As a leading cybersecurity country in the Indo-Pacific region, Korea has decided to establish an ‘International Cyber Training Center.’ This will further encourage cooperation in cybersecurity between Korea and NATO.” Once the International Cyber Training Center is completed in 2027, the government plans to strengthen cooperation with NATO’s Cyber Defense Center to ultimately make Korea a global leader in cybersecurity.

Government officials analyzed that Korea’s relationship with NATO has become closer through joining BICES. Yesterday, Korea and NATO elevated the level of cooperation from the Individual Partnership Cooperation Program (IPCP) to the Individually Tailored Partnership Programme (ITPP) for the first time in 12 years. President Yoon said, “In the era of complex crises, we need to stand more firmly together. Let’s all join forces to contribute to the world’s freedom, peace, and prosperity.” As the alliance between Korea, the U.S., and Japan strengthens, and the relationship between Korea and NATO becomes closer, it is evaluated that the solidarity among the free forces emphasized by President Yoon is on the right track.

President Yoon also revealed additional support measures for Ukraine. He said, “The Republic of Korea has actively participated in international solidarity to support Ukraine. This year, we are implementing humanitarian support, including mine clearance equipment and emergency medical transport vehicles. To strengthen Ukraine’s resilience, we will also participate in NATO’s Ukraine Trust Fund.” He added, “The Republic of Korea will stand together until the day when the freedom of the people of Ukraine is fully restored.”

Regarding North Korea’s launch of an intercontinental ballistic missile (ICBM) on the day, President Yoon said, “North Korea’s ICBM launch is a serious violation of the UN Security Council resolution and a serious provocation to world peace. We must stand together more strongly, condemn it with one voice, and respond.” NATO member states had condemned North Korea’s nuclear and missile development through a joint statement adopted on July 11 (local time).
Exclusively Dollars

South Korea, Japan Seal US$10 Billion Currency Swap Deal

By Jasmine Choi

On June 29, South Korea and Japan finalized a US$10 billion currency swap. The renewal of this currency swap deal comes eight years after its suspension in February 2015. This South Korea-Japan swap agreement is not an exchange of South Korean won and Japanese yen, but rather a “dollar swap” that exchanges South Korean won and U.S. dollars.

Deputy Prime Minister and Minister of Economy and Finance Kyung-Ho Chu and Japan’s Finance Minister Shunichi Suzuki held the 8th South Korea-Japan Finance Ministers’ Meeting in Tokyo where they agreed to restore the South Korea-Japan currency swap. The agreement’s size is US$10 billion, which is the same as the previous agreement terminated in February 2015, and larger than the initial expectation of “at least US$2 billion.”

Following the meeting, Deputy Prime Minister Chu stated at the briefing, “This agreement is a symbolic achievement showing that the rapid recovery in bilateral relations since the South Korea-Japan summit in March has been restored in the field of financial cooperation.” He also noted the shared recognition of the need to strengthen the regional financial safety net leading to the swap deal.

The South Korea-Japan currency swap began with US$2 billion in 2001 and expanded to US$70 billion during the Global Financial Crisis and the European sovereign debt crisis in 2011-2012. However, due to the deterioration of South Korea-Japan relations triggered by then-President Lee Myung-bak’s visit to Dokdo in August 2012, the balance was reduced and terminated in February 2015.

The characteristic of this renewed currency swap is that it is entirely dollar based. For example, if South Korea deposits US$10 billion in won, Japan provides US$10 billion in U.S. dollars. Until now, South Korea-Japan currency swaps have been either exchanges of won and yen or South Korea providing won and borrowing both yen and dollars.

The resumption of the South Korea-Japan currency swap after eight years has placed South Korea-Japan economic cooperation back on track. Especially after the Japanese government decided to include South Korea in the whitelist (preferred export review countries) on June 27, the thawing mood between the two countries in the economic field has been further intensified with the swap deal. It is also expected to have a significant stabilizing effect on the foreign exchange market as the scale of the currency swap is larger than initially expected.

Moreover, experts suggest that South Korea can enjoy the effects of an “indirect US-South Korea currency swap agreement” by securing US$10 billion through this currency swap agreement. They believe this South Korea-Japan currency swap agreement can help non-reserve currency countries like South Korea secure dollar liquidity in emergencies, which can aid in stabilizing the foreign exchange market.

Supporting Busan

Japanese Business Community to Support Bringing World Expo to Korea in 2030

By Jung Min-hee

Business leaders from Korea and Japan gathered again in Seoul for the Korea-Japan Industrial Cooperation Forum to discuss ways to boost cooperation between the two countries. Recently the two countries have accelerated their economic cooperation, including the signing of a currency swap for the first time in eight years that allows them to lend US$10 billion to each other in emergency situations.

On July 6, the Federation of Korean Industries (FKI) held the forum with the Japan Business Federation (Keidaren) at the Conference Center of FKI Tower in the Yeongdeungpo district of Seoul. The forum was attended by Kim Yoon, chairman of Samyang Holdings; Jin Ok-dong, chairman of Shinhan Financial Group; Kim Kyo-hyun, CEO of Lotte Chemicals; and Choi Soo-yeon, CEO of Naver.

From the Japanese side were Tokura Masakazu, chairman of Keidanren; Matsuo Takehiko, director of trade policy...
at the Japanese Ministry of Economy, Trade and Industry; Sato Yasuhiro, a special advisor to Mizuho Financial Group; Higashihara Toshiaki, chairman of Hitachi; and Endo Nobuhiro, a special advisor to NEC. On June 9, the KCCI hosted the 12th Meeting of Leaders of the Korea Chamber of Commerce and Industry (KCCI) and the Japan Chamber of Commerce and Industry (JCCI) at the Signiel Hotel in Busan and issued a joint statement. The statement read that the Korean and Japanese business communities agreed to join forces to help Busan, Korea punch the ticket to host the World Expo in 2030 and Osaka and Kansai of Japan successfully hold the Osaka-Kansai Expo in 2025.

The meeting was attended by Chey Tae-won, chairman of the KCCI, and Kobayashi Ken, chairman of the JCCI.

“The KCCI will actively participate in the Osaka-Kansai Expo in 2025 and the JCCI will actively cooperate with the KCCI in order to help Busan to bring the World Expo in 2030,” the two chambers said in the joint statement.

“In addition, the KCCI and the JCCI will consider solving their common tasks – tackling decreases in populations due to low birth rates and aging in Korea and Japan, reconstructing supply chains based on economic security, the realization of carbon neutrality, building AI governance, enhancing AI security, promoting digitalization, and supporting startups in cooperation with other economic organizations in Korea and Japan,” they added.

Chairman Chey Tae-won

Busan Expo is not about making money; it is about contributing back to mankind

By Jasmine Choi

C

hey Tae-won, chairman of SK Group and the Korea Chamber of Commerce and Industry, clarified the rationale for hosting the 2030 Busan World Exposition (Expo).

According to the Korea Chamber of Commerce and Industry, Chairman Chey held a briefing for foreign journalists on July 26 to share his reflections on the activities related to the bid for the 2030 Busan Expo and his future plans.

Chairman Chey stated during the discussion, “As the only country that has moved from receiving Official Development Assistance (ODA) 70 years ago at the time of the Korean War ceasefire, it is now time to reciprocate.” He further emphasized, “We are pushing for the Expo as a symbol of reciprocity, but we also intend to turn it into a solution platform to solve international issues, not a traditional technological showcase.”

In response to questions regarding the relationship between the Korean War and the Expo, Chairman Chey clarified, “Rather than paying back the aid received like paying interest, I thought it was proper to repay the favor by proposing something new that humanity needs and creating solutions. Some people talk about the economic effect of 61 trillion won for Korea, but it is not about making money from hosting the Expo, but about contributing back to mankind. I believe that doing that correctly is much more important.”

Chairman Chey focused on introducing WAVE, a solution platform established by the Korea Chamber of Commerce and Industry in March, to justify hosting the Busan Expo.

WAVE is a voluntary solution platform that proposes and develops ideas through collective intelligence. The Chamber of Commerce plans to build an online national pavilion for all global countries by November and gather groups together that can solve problems. Currently, national pavilions for 61 countries have been established.

Chairman Chey explained the purpose of establishing WAVE, saying, “The speed of solving problems is too slow compared to the problems we face. There need to be more people trying to solve the accumulating problems, and more platforms are needed to solve them.”

Chairman Chey also shared an anecdote about requesting support for the Busan Expo from Chinese Premier Li Keqiang, alongside former U.N. Secretary-General Ban Ki-moon, as part of his efforts to persuade Chinese-speaking countries.

Chairman Chey revealed, “Although nothing is confirmed yet, I plan to discuss this issue [the Busan Expo bid] in-depth during my next visit to China.” He added, “There is a gala dinner scheduled for the Expo on Oct. 9, where we are planning performances, including K-pop, to promote the Busan Expo and persuade as many as possible.”

In response to a question about whether the roles of the Chairman of the Korea Chamber of Commerce and Industry and the Chairman of SK Group conflict, Chey clarified, “I have been doing this (Chairman of the Chamber) for three years now and I don’t think there’s a conflict. It has nothing to do with serving the company’s interests.”

Chairman Chey continued, “I don’t think there’s a conflict of roles, but if there is, I will quit the job where the conflict arises,” repeatedly emphasizing that there are no conflicts of interest.
As the trend of de-sinicization rises across industries in Korea, Altasia is emerging as an alternative to China.

The Korea Chamber of Commerce and Industry (KCCI) released the results of its study on changes in the global trade structure and countermeasures on July 5, revealing that 14 Asian countries, including Korea, are gaining attention as Altasia, or alternative Asia, that can replace China in the supply chain. Altasia is a neologism recently coined by the British economic magazine The Economist.

It means that no country can take over China’s roles immediately, but a group of countries surrounding China can become an alternative to China when divided into sectors such as technology, logistics, resources, and investment policies.

In fact, de-sinicization is gaining momentum. According to the Korea Trade-Investment Promotion Agency (KOTRA), more than six in 10 global companies (63 percent) moved more than a quarter of their production bases from China to India and Vietnam in the last two years. India, in particular, has emerged as a viable alternative, with a larger population than China, an abundant labor force, and a huge domestic market. Apple, Sony, and Adidas have already left China to set up production bases in India and Southeast Asia.

Korean companies have seen a sharp decline in their operations in China. Samsung Electronics had only 17,891 employees in China in 2022, down by less than a third from about 60,000 in 2013. Hyundai Motor also saw its number of employees in China drop by more than 20 percent over the past three years.

Global companies are shunning China, once called “the world’s production base,” due to several factors: restrictions on the flow of advanced technology into China due the U.S.-China hegemonic conflicts; Beijing’s action against those restrictions; and China’s growing self-sufficiency with its increase of domestically produced goods. But more fundamentally, China is no longer the China it once was. Manufacturing wages in China have more than doubled in the past decade, soaring to US$8.27 (about 10,750 won) per hour, three times higher than wages in countries like Vietnam and Indonesia.

The Asian countries surrounding China have begun to outpace it in both the quantity and quality of labor. The total labor force (those aged 15-64) in the 14 Altasia countries is 1.43 billion people, more than China’s 950 million. The number of highly educated people aged 25-54 also stands at 155 million, eclipsing China’s 145 million.

A case for Altasia is that an alternative supply chain to replace China can be built if Korea, Japan, and Taiwan provide advanced technology and capital, Singapore provides financing and logistics, and India, Vietnam, Indonesia, and the Philippines provide labor and resources.

But the case has a limitation as well. These countries do not yet have much in common other than the need to keep China in check. A counterargument has it that it is not realistic to expect them to completely replace China’s spending power.

South Korea’s share of China’s total imports descended to the low 6 percent range.

According to data from the Chinese government, South Korea’s exports to China in the first half of this year totaled US$77 billion, down 24.9 percent from the same period of 2022.

During the same period, China’s total imports amounted to US$1.2547 trillion, of which imports from South Korea accounted for 6.1 percent. This is a drop of 1.5 percentage points from 7.6 percent in the first half of last year.

In one year, South Korea’s ranking dropped from second place to fifth. In the first half of last year, it ranked second (7.6 percent) in China’s total imports,
Behind first-place Taiwan (9.1 percent), Japan (6.9 percent), the United States (6.8 percent), and Australia (5.2 percent) followed South Korea by taking third to fifth places.

However, in the first half of this year, the order was changed with Taiwan (7.3 percent), the United States (7.0 percent), Australia (6.4 percent), Japan (6.2 percent), and South Korea (6.1 percent).

China's imports from South Korea shrank by 6.7 percent lower in the first half of this year compared to last year while South Korea's exports to China fell by 24.9 percent, the sharpest among 23 major countries and regions in the Chinese government's classification, leading to South Korea's fall through the rankings.

The drop in the proportion of China's imports from South Korea in its total imports has been more noticeable since China's retaliation against South Korea for the latter's deployment of the THAAD system in 2017. In 2016, before the Chinese retaliation, South Korea's percentage stood at 10 percent, but it fell to 9.6 percent in 2017, 9.6 percent in 2018, 8.4 percent in 2019, 8.4 percent in 2020, 7.9 percent in 2021, and 7.4 percent in 2022.

Major South Korean companies such as Samsung Electronics and Hyundai Motor suffered significant sales declines mainly in core consumer goods such as smartphones and automobiles in China following the THAAD retaliation.

According to CEO Score Research Institute, which examined six years of sales of 113 of Korea's 500 largest companies, excluding battery and semiconductor sales, their sales shrank by 37.3 percent to 73.4485 trillion won in 2017 from 117.23 trillion won in 2016.

A slump in Korea's exports to China, which have continued since last year, has been pointed out as the main culprit behind South Korea's overall export slump and lingering trade deficit. According to the Korean Ministry of Trade, Industry and Energy, South Korea's monthly growth rate of exports to China remained in the negative for 13 months from June 2022 to June 2023. Its trade deficit with China has also been continuing for nine months since October 2022. This year, its cumulative trade deficit with China reached US$12.92 billion through May 25, accounting nearly half of its total trade deficit of US$28.14 billion.

Glacial Bilateral Ties

1st Current Account Deficit of 10 Trillion Won in S. Korea's Trade with China

By Jung Min-hee

After two decades since the establishment of diplomatic relations in 1992, China is likely to be knocked out from its role as the largest trading partner of the South Korean economy. The void left by China is quickly being filled by Korea's ally, the United States.

South Korea's current account surplus with the United States jumped 48.9 percent to US$67.79 billion in a year from US$45.54 billion, according to data from the Bank of Korea (BOK) and others on July 26. This is the largest surplus since the Korean government began to compile regional current account data in 1998. This was driven by an increase in exports, mainly passenger vehicle exports, which led to the largest surplus of US$65.38 billion in the goods balance in South Korea's trade with the United States since 2014.

South Korea's current account in trade with China, on the other hand, saw the largest deficit on record, turning from a surplus of US$23.41 billion in 2021 to a deficit of US$7.78 billion last year. This marked the first time since 2001 (-US$760 million) that the public current account has been in deficit. In particular, South Korea's trade deficit with China has been running for nine months since October 2022. This is because exports of machinery and precision equipment and petroleum products to China fell significantly, while imports of raw materials from China increased. Machinery, precision equipment, and petroleum products are the mainstay of the Korean economy in exports to China.

This trend is raising the possibility that South Korea's largest trading partner will shift from China to the United States for the first time in 20 years. South Korea's exports to China and the United States have been around 25 percent and 15 percent, respectively, but the ratio is likely to reverse after April. Korean Ambassador to the U.S. Cho Hyun-dong recently said, “If the current trend continues, the United States can become South Korea's largest trading partner again in 20 years.”

As South Korea's largest trading partner and main export products are changing, it is urgent for Corporate Korea to diversify its exports. “China is catching up with Korea's technological prowess at a rapid pace, and considering China's political conflict with the United States, it seems not easy for Corporate Korea to recover its exports to China at a fast pace,” said Kim Jung-sik, professor emeritus at Yonsei University's Department of Economics. “We need to sharpen our export competitiveness by fostering new industries such as the biotech and defense industries.”

Sales at Hyundai Motor's Chinese subsidiary plunged by 75.7 percent, or 15.28 trillion won, from 20.1287 trillion won in 2016 to 4.9003 trillion won in 2022.

In China, the US$1 billion in S. Korea's trade with China

Won in S. Korea's Trade with China

1st Current Account Deficit of 10 Trillion

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Malicious code has been discovered in Chinese-made measurement devices supplied to government agencies. The National Intelligence Service (NIS) reported that the malicious code was pre-installed in the Chinese equipment before delivery, and they have decided to investigate all Chinese-made devices delivered to government agencies. The NIS also revealed that cyberattacks from North Korea, China, and Russia are on the rise, including incidents of North Korean hackers disguising their identities to apply for jobs at domestic companies.

The NIS held a press-invited cybersecurity conference at the National Cyber Security Collaboration Center located in Pangyo Techno Valley in the Bundang district of the city of Seongnam in Gyeonggi Province on July 19. They announced cases of recent cyberattacks on domestic government agencies, local government bodies, and companies from North Korea, China, and Russia. The NIS, responsible for the security and control of government agencies and local governments, stated, “An average of 1.37 million attacks per day have been detected by international hacking organizations this year, with 70% of them linked to North Korea, followed by China and Russia.”

Last month, malicious code pre-installed in equipment manufactured by a Chinese company and supplied to domestic government agencies was found. The NIS announced, “We immediately commenced a joint full-scale investigation with relevant agencies into Chinese-made network equipment and similar devices such as CCTVs supplied to domestic government agencies and local governments.” Baek Jong-wook, the third vice director of the NIS, said, “We have carried out about 30% of the full-scale investigation, and additional malicious code has been confirmed in one of the roughly 10,000 Chinese-made devices.”

The NIS also revealed recent cases where North Korean hackers were caught trying to get jobs at overseas branches of domestic companies by forging passports and graduation certificates, and cases where they replicated Naver news pages to hijack email accounts. The leakage of the personal information of over 1,000 domestic credit card users was also reported.

With the general elections coming up in April next year, the NIS predicted that cyberattacks from North Korea will intensify. Baek Jong-wook stated, “With our general election and the U.S. presidential election approaching, there is a possibility that internet influence operations aiming to induce changes in consciousness or behavior will intensify.” He added, “The NIS will actively respond to cyberthreats in cooperation with allied countries and the private sector.”

Last month, the scale of South Korea’s exports to China ranked fourth among China’s trading partners. The downturn in exports to China resulted in a two-rank drop within a year.

According to an analysis by the Korea Economic Research Institute (KERI) under the Federation of Korean Industries on June 29, South Korea’s exports to China last month amounted to US$12.82 billion, a 23% decrease from a year ago. This ranking followed Taiwan (US$15.09 billion), the United States (US$14.31 billion), and Australia (US$13.59 billion) in fourth place. A year ago in May, it was second after Taiwan with US$16.61 billion.

Most of the top countries trading with China saw a decrease in export volume, with Korea and Taiwan (23%) experiencing the largest drops. The US’s exports to China decreased by 10%, and Japan also fell by 14% (US$12.4 billion), falling from fourth to sixth place. On the contrary, countries like Australia (5%), Brazil (13%, 5th place), and Russia (10%, 7th place) saw increases.

South Korea’s trade deficit with China turned negative since May last year, and the accumulated deficit from January to May this year is US$11.8 billion. This is more than twice the deficit of US$5.2 billion from May to December last year. This accounts for 43.4% of the total trade deficit (US$27.4 billion) from January to May this year.

KERI analyzed that South Korea’s export competitiveness is deteriorating rapidly due to the concentration of exports to China in a few items, the improvement of China’s self-sufficiency in intermediates, and the narrowing of the technology gap.
“Made in China” is making its mark in the Korean market, not only with solar power components but also in a variety of future-oriented products such as electric buses, drones, and robots.

According to data submitted to Han Moo-kyung, a lawmaker of the People Power Party, by the Korea Energy Agency on July 9, the domestic supply of Chinese-made solar cells from January to May this year was counted as 743,397 MW. This figure amounts to 68% of the total supply (1,093,279 MW) for the same period. This trend has accelerated over the past few years. The share of Chinese-made solar cells in the domestic market dropped from 45.2% in 2017 to 31.8% in 2018, went up to 33.5% in 2019, but jumped to 65.2% in 2020. It then recorded 59.3% in 2021 and 53.8% in 2022, sharply increasing this year. Despite fluctuations over the past few years, the overall trend is upward.

According to the Korea Automotive Mobility Industry Association, the market share of Chinese-made electric buses in Korea last year was found to be 44%. The share, which stood at 24% in 2019, rapidly increased to 33% in 2020 and 38% in 2021. Industry insiders predict that this trend will continue to accelerate as the demand for electric buses increases.

The number of electric buses in Korea is rapidly increasing every year due to the government’s “eco-friendly” policy. According to data compiled by the Ministry of Environment, the annual supply recorded 99 in 2017, 121 in 2018, 551 in 2019, 1,016 in 2020, 1,290 in 2021, and 2,074 in 2022, increasing more than 20 times over six years.

The main reason for the rapid increase in the proportion of Chinese-made electric buses is price competitiveness, but recently, it is said that Chinese products are leading in battery capacity. The transition to the era of electric vehicles has greatly reduced the technology gap with Korea in related fields, making it easier for Chinese companies to enter the Korean market. “Made in China,” which once penetrated the market with its cost-effectiveness, is now attacking the domestic market with technology as well. In the first half of this year, Hyundai Elec City ranked first in market share, but places two to five were all occupied by the Chinese companies HIGER, CHTC, BYD, and Zhongtong Bus.

The Ministry of Environment decided to provide differentiated subsidies according to the operation of repair and parts management (AS) centers and battery energy density through subsidy reform earlier this year, but it is not enough to block the Chinese assault. Voices in the industry are calling for urgent government policy support to maintain the ecosystem of the domestic electric bus industry.

Kim Yong-won, vice president of the Korea Automobile Safety Association, expressed concern, saying, “Cheap Chinese electric buses are rapidly occupying the quasi-public market. Some may argue that buying Chinese is good because it saves taxes, but if the domestic electric bus industry ecosystem collapses, the price of Chinese electric buses can increase significantly.”

The rapidly growing drone market in recent years has also been dominated by China. According to the Korea Transport Institute, the size of the domestic drone market grew about seven times from 70.6 billion won (US$54.1 million) in 2016 to 494.5 billion won in 2020. It is projected to expand to 2.2 trillion won by 2030.

In the midst of this, industry insiders estimate that the market share of Chinese-made drones is around 70%. Chinese drones are not only competitively priced but are also said to surpass domestic products in terms of technology. According to data from the “2nd Drone Industry Development Basic Plan Public Hearing” announced by the government earlier this year, Korea’s drone technology was analyzed to be only 60% of the level of leading countries such as China.

The serving robot market is also more than half dominated by China. In the robot industry, it is estimated that more than 70% of the serving robots currently distributed in Korea are products of Chinese companies such as Pudu Robotics and Keenon Robotics. Chinese serving robot companies entered the Korean market early and preempted the market by offering prices more than 20% cheaper than domestic products.

The Ministry of SMEs and Startups is providing a subsidy equivalent to 70% of the supply price to purchasers of serving robots through the Smart Store Technology Diffusion Project. Since the subsidy is paid out regardless of the country of manufacture, one can receive subsidies even if they purchase a Chinese serving robot. Therefore, from the perspective of the purchaser, they tend to prefer cheaper Chinese products. This is why the industry is calling for urgent protection measures for domestic industries.

One of the reasons Chinese serving robots were able to quickly take over the Korean market is the full support of the Chinese government. Since announcing the China Manufacturing 2025 Plan in 2015, China has provided massive subsidies to robot manufacturers and buyers.

Seong Han-kyung, a professor of economics at the University of Seoul, said, “With the help of large-scale subsidy policies from the Chinese government, Chinese companies have grown rapidly (in promising future industries), and are increasing their market share in Korea by highlighting price competitiveness, etc.” He added, “The way for Korean companies to overcome this and gain a competitive advantage is ultimately technology,” emphasizing that “the government needs to create an environment conducive to technology development.”

Korean, Chinese Both

Made in China Products Erode Korean Market with Gov't Subsidies

By Jasmine Choi

Electric buses from the Chinese manufacturer HIGER are charging at a public bus depot in Seoul.
Korean President Yoon Suk-yeol’s upcoming visit to Poland has raised expectations that Korean companies will be able to gain an edge in the second phase of Poland’s nuclear power plant project if the two countries strengthen cooperation in the field of green energy.

After failing to win the first phase of the nuclear power plant construction project in Poland, the Korean nuclear power industry is poised to pull out all the stops to win the second phase of the project by forming Team Korea, including Korea Hydro & Nuclear Power (KHNP) and Doosan Enerbility. A tender for the second phase is scheduled for the second half of this year.

According to sources in related industries on July 10, President Yoon will hold a summit with Polish President Andrzej Duda at Polish Presidential Palace on July 13 to discuss strengthening cooperation in strategic fields such as defense, nuclear power, and infrastructure, and even in cooperation in the reconstruction of Ukraine.

Although U.S.-based Westinghouse won the order for the construction of six pressurized light water reactors with capacities of 6 to 9 GW, projects that were promoted by the Polish government, Korean companies are determined to win the second phase order for the construction of Pątnów Nuclear Power Plant, which will be carried out by the private sector later this year.

The president of PGE leading the second phase of the project visited Korea in April to discuss the nuclear power plant project with Doosan Enerbility and Daewoo Engineering & Construction. This has also increased the possibility of Korean companies landing a second batch order from Poland.

As Doosan Enerbility is engaged in the small modular reactor (SMR), offshore wind and gas turbine, hydrogen energy, and eco-friendly fuel businesses, the company has high expectations of achieving meaningful results from President Yoon’s state visit to Poland.

As wind power accounted for the largest share (51 percent) of renewable energy sources in Poland in 2022, cooperation in the wind power business can also be strengthened. Doosan Enerbility plans to appeal to Poland by highlighting the rich expertise that it has accumulated by manufacturing 98 wind turbines totaling 347.5 MW since 2005.

The order for the Polish nuclear power plant can become an important stepping stone to winning nuclear power plant construction orders from other Eastern European countries. The Czech Republic, Romania, Bulgaria, Kazakhstan, and other countries are expected to have high demand for new nuclear power plants, which can offer an important opportunity for the growth of Korea’s nuclear power industry.
Public-Private Cooperation

Korean Gov’t Asks Turkmen Officials for Support in Winning Plant Orders from Turkmenistan

By Jung Min-hee

Korean Trade, Industry and Energy Minister Lee Chang-yang asked the government of Turkmenistan, the world’s fourth-largest natural gas producer, to support Korean companies in winning plant projects. The projects are worth US$2.5 billion (about 3.2 trillion won).

Turkmenistan’s natural gas reserves are 13.6 trillion cubic meters (about 10 billion tons of liquefied natural gas), making it the world’s fourth-largest natural gas producer. Its main imports from Korea are pharmaceuticals, auto parts, and synthetic resins.

The Korean Ministry of Trade, Industry and Energy (MOTIE) said that Minister Lee had a high-level meeting with Baymyrat Annamammedov, Turkmenistan’s deputy prime minister for construction and industry, at a high-level meeting at Lotte Hotel in Seoul on July 19.

There are many success stories of cooperation in plant projects between the two countries, such as the US$3 billion Kiyanal Gas Chemical Plant completed in October 2018,” Lee said, suggesting that the two countries work together to create another success story. “I would like to request the Turkmen side’s interest and support for Korean companies’ participation in two plant projects in the Balkan and Türkmenabat regions of Turkmenistan, respectively.”

Turkmenistan is building the Balkan Urea-Ammonia Fertilizer Plant and Türkmenabat Phosphate Fertilizer Plant. The Balkan Urea-Ammonia Fertilizer Plant will produce 1.15 million tons of urea fertilizers per year and 660,000 tons per year of synthetic ammonia. It will be built by a state-run Turkmen company. The Türkmenabat Phosphoric Acid Fertilizer Plant is a 300,000 t/year phosphoric acid fertilizer production facility and auxiliary facilities for the Turkmen State Corporation. The projects will be carried out in the form of an engineering, procurement, and construction (EPC) contract. Daewoo E&C signed a memorandum of understanding in November last year and received a letter of intent in March this year. Accordingly, the main contract signing will be promoted after this November.

This visit by the Turkmen delegation, which included Turkmenistan’s deputy prime minister for construction and industry and officials from the state-run Turkmen gas and chemical companies, among others, showed the Turkmen side’s strong willingness to cooperate with Korea in the plant business, industry analysts say.

According to the Korean Ministry of Trade, Industry and Energy, trade between Korea and Turkmenistan stood at US$9 million in 2022. Turkmenistan’s main resources are natural gas and oil, with its natural gas reserves accounting for 7.23 percent of the world’s total. Its annual natural gas production is 59 billion cubic meters, accounting for 1.53 percent of the world’s total, ranking 13th. Its oil reserves are 600 million barrels, ranking 45th in the world, and its oil production is 80 million barrels, ranking 33rd in the world.
South Korea’s nominal gross domestic product (GDP) is provisionally ranked 13th in the world. It has dropped out of the top 10.

According to statistics released by the Bank of Korea (BOK) on July 12, South Korea’s nominal GDP at market exchange rates was US$1.6732 trillion in 2022. It ranked 13th globally. The United States topped the list with US$25.462 trillion, followed by China with US$17.876 trillion. The so-called “G2 System” was proved by these rankings. Third place was taken by Japan with US$4.2256 trillion. Germany posted US$4.0752 trillion, the United Kingdom US$3.0798 trillion, India US$3.0096 trillion, France US$2.7791 trillion, Canada US$2.1436 trillion, Russia US$2.0503 trillion, and Italy US$2.0105 trillion. Italy came in 10th.

Brazil placed 11th with US$1.8746 trillion and Australia 12th with US$1.0723 trillion. South Korea claimed 13th place. South Korea’s GDP per capita was US$32,409.

If South Korea’s economy was scaled to 100 in 2022, the United States reached 1,522, more than 15 times the size of South Korea. China reached 1,068, Japan 253, and Germany 244. India’s economy was about 80 percent larger than South Korea’s.

South Korea’s economy joined the top 10 club in the world for the first time in 2005. It stayed outside the top 10 for a while, then moved back into it in 2018. It slid to 12th place in 2019, but then returned to 10th place for two consecutive years in 2020 and 21.

South Korea’s economic decline was mainly blamed on the depreciation of the Korean won. It has fallen more than any other country in terms of nominal GDP due to its relatively large depreciation against the U.S. dollar. South Korea’s nominal GDP in 2022 was 2,161.7739 trillion won. This represented a 3.9 percent increase from the previous year. However, in dollar terms, it was down 7.9 percent year over year.

This is largely due to recent fluctuations in commodity prices, which resulted in relatively larger increases in the sizes of the economies of commodity exporters such as Russia, Brazil, and Australia.

Most of all, South Korea’s economy has recently been performing below its potential growth rate. The Bank of Korea (BOK) and the Korean Ministry of Strategy and Finance have presented a forecast of 1.4 percent real GDP growth this year. This is well below 2 percent potential growth.

It will take a long time for South Korea’s economy to enter the top 10 again, experts forecast. This is because the globalization era, which has been the major driver of South Korea’s long-term growth, has been disrupted by the U.S.-China hegemonic war, and in the short term, a strong U.S. dollar is likely to continue for quite some time. The world’s major financial institutions have lowered their growth forecasts on South Korea for 2024 below that of other advanced economies.

When comparing Korea with other countries in national competitiveness, Korea has a gloomy outlook. Statistics Korea predicts that Korea’s population of 52 million in 2023 will plummet to 40 million in 2041 and then drop to 38 million, two-thirds of the current level, in 2070.

In terms of labor competitiveness, South Korea ranks low. According to the Heritage Foundation’s 2023 Index of Economic Freedom, Korea’s labor market index was 56.2, far behind the United States (76.3) and Japan (66.8). The index is a comprehensive measure of labor market regulations such as working hours, hiring, and firing.

Soaring minimum wage increases are one of the factors that further weaken Korea’s labor competitiveness. According to the Korea Enterprises Federation (KEF), the minimum wage in Korea swelled by 41.6 percent in the last five years (2018-2022), which is 1.3 to 5.6 times higher than those of the Group of Seven (G7) countries. Various regulations, frequent labor strikes, and labor cost burdens are considered factors that dampen foreign investment in Korea.

In terms of technological innovation, South Korea ranks in the middle of countries around the world. According to the International Innovation Scorecard released by the U.S. Consumer Technology Association (CTA) in early 2023, South Korea came in 26th among 70 countries in innovation.

However, South Korea’s rankings are subject to change, as the report is not based on official U.N. statistics. The BOK explained that it used forecasts by the International Monetary Fund (IMF) and the Organization for Economic Cooperation and Development (OECD) as well as the United States, Japan, China, Germany, the United Kingdom, India, France, Italy, and Australia, so specific figures such as South Korea’s nominal GDP sizes and rankings are subject to change. The U.N.’s official statistics will be released in January 2024.
Net International Investment Position

Korea Shows 10 Percentage Point Growth in NIIP Relative to GDP in One Year

By Jung Suk-ye

The Net International Investment Position (NIIP) as a percentage of Gross Domestic Product (GDP), which indicates Korea’s ability to make international payments, stood at 46.3 percent last year, showing an increase of nearly 10 percentage points in just one year. This growth was driven by the expansion of domestic residents’ overseas direct investments.

According to the IMF’s annual External Sector Report (ESR) released on July 23, South Korea’s net international financial assets, excluding external financial liabilities, amounted to 46.3 percent of GDP based on last year’s data. This marks a significant increase of 9.9 percentage points compared to 2021 when net international financial assets accounted for 36.4 percent of GDP. The IMF attributed this growth to factors such as the rise in Koreans’ overseas direct investments.

Based on the report, South Korea ranked 9th out of 29 countries in the ratio of net international financial assets to last year’s GDP. Hong Kong topped the list with 486.0 percent, followed by Singapore with 176.1 percent, Switzerland with 93.3 percent, Japan with 75.2 percent, the Netherlands with 75.1 percent, Germany with 71.0 percent, Saudi Arabia with 61.5 percent, and Belgium with 54.0 percent.

According to the preliminary International Investment Position released by the Bank of Korea (BOK) on May 24, South Korea’s net international financial assets reached US$771.3 billion (989.9 trillion won) at the end of last year. In the first quarter of this year, it recorded an increase of US$1.7 billion, amounting to US$773 billion.

The IMF predicts that South Korea’s net international financial assets may reach around 56 percent of GDP in the medium term, which is 10 percentage points higher than last year. This projection is influenced by factors like the surplus in the current account. Furthermore, considering that around 60 percent of the external assets are dollar denominated, there could be a potential increase in external investment positions if the value of the Korean won depreciates.

The trend of rising net international financial assets relative to GDP is closely related to the recent surplus in primary income accounts. The cumulative surplus in the primary income account reached US$14.64 billion as of May, contributing to an improvement in the current account balance. An official from the BOK said, “Among advanced countries, there are very few that consistently maintain a significant trade surplus. While it may be premature to say that South Korea has firmly established a structure where the rise in overseas direct investments leads to growth in the primary income account, it is certainly moving in that direction.”

The IMF revealed that South Korea’s current account surplus amounted to 1.8% of GDP last year, influenced by factors such as a sluggish semiconductor industry, increasing prices of imported raw materials, and a decline in exports. The figure is 2.9 percentage points lower than the 4.7 percent recorded in 2021. However, there is a forecast of a recovery to 2.2 percent of GDP for this year and an expected increase to 3.5 percent in the medium term. Nevertheless, geopolitical tensions were highlighted as a potential variable that could adversely affect trade and investment.

South Korea’s net capital outflow last year reached 4.0 percent of GDP, which was higher than the 3.5 percent recorded in 2021. The capital outflow reflects the external investments made by domestic residents, a surplus in the current account, and the rise in net international financial assets, leading the IMF to assess it as a sustainable medium-term trend.

The IMF said, “The ongoing fiscal consolidation and tightening monetary policy in South Korea since mid-2021 will limit the expansion of domestic demand and imports. However, this trend is expected to provide short-term support to South Korea’s external position.” It also added, “In the medium term, an increase in precautionary savings due to an aging population, reduction in household debt, and strong policies to mitigate risks related to geopolitical tensions would help maintain a sound external position.”
The amount of foreign direct investment (FDI) declared in Korea in the first half of this year has recorded its highest since statistics started being compiled in 1962. Analysis suggests that Korea has emerged as an alternative investment destination to China due to U.S.-China tensions.

The Ministry of Trade, Industry, and Energy announced on July 4 that the declared FDI for the first half of this year increased by 54.2% compared to the same period last year, recording US$17.09 billion. On a quarterly basis, it has been increasing for four consecutive quarters since the third quarter of 2022. The arrival-based FDI increased by 6% from the previous year, reaching US$7.75 billion.

Looking at the FDI in the first half of this year by industry, the manufacturing sector reached US$7.63 billion, an increase of 145.9% compared to the previous year. Investment increases were particularly noticeable in the fields of semiconductors, secondary batteries including electricity and electronics (up by 663%), and chemical engineering (up by 464.1%). Investment in the service sector was US$8.48 billion, up 11% from the previous year.

By region, the investment from the European Union (EU) increased by 144.8% to US$4.26 billion, the highest. This was followed by the United States (US$3.66 billion, up by 24.1%) and Greater China including Taiwan and Singapore (US$3.25 billion, up by 32.8%).

A European chemical company that has its Asia-Pacific headquarters in China is considering relocating it to Korea. This is due to increasing uncertainties as the US-China conflict prolongs and China’s policy towards foreign companies becomes tougher.

Vestas, the world’s No. 1 wind turbine company, decided last month to move its Asia-Pacific headquarters from Singapore to Korea and invest US$300 million in building a factory here. A government official said, “There is an awareness among global companies that Singapore is also part of Greater China. As a result of the uncertainty caused by the US-China conflict, Korea, which has a solid manufacturing base, is being highly evaluated as an alternative.”

The record-breaking FDI in the first half of this year is largely due to the China avoidance funds flowing into Korea. Until now, companies have prioritized China, which has a large market and manufacturing base, when investing in Asia.

According to data provider CEIC, the FDI in China from foreign companies, which was US$344.1 billion in 2021, almost halved to US$189.5 billion last year due to the protracted US-China conflict. FDI in Hong Kong also decreased from US$137.2 billion to US$109.6 billion during the same period.

On the other hand, foreign investment is flowing into Korea and Japan. The domestic FDI, which was only US$26.9 billion in 2018, increased to US$29.513 billion in 2021 and recorded US$30.445 billion last year. It is forecast that it might even surpass US$35 billion this year. Japan is also attracting foreign investment. According to data from Japan’s Ministry of Finance, the balance of FDI in Japan based on the first quarter has increased by 37% over the last three years to ¥4,678.6 billion.

Another reason for the increase in domestic FDI is the U.S.’s Inflation Reduction Act (IRA). The IRA is a system that grants subsidies only when a certain proportion of battery materials produced in the United States or a country that has a free trade agreement (FTA) with the United States is used. The countries in Asia that have an FTA with the U.S. are Korea and Singapore. Compared to Singapore, which lacks a manufacturing base, Korea is known to have the world’s top level of manufacturing capability. Therefore, even Chinese companies are flocking to Korea to target the U.S. market. A representative example is a Chinese company investing US$500 million in the first quarter to build a light bulb factory in Saemangeum.

Korea’s export volume index turned for a rise for the first time in four months. The country’s net terms of trade index also rebounded for the first time in 27 months as a drop in its imports eclipsed a drop in its exports.

According to the Trade Index and Terms of Trade for June 2023 (in U.S. dollar terms) released by the Bank of Korea (BOK) on June 27, the export volume index stood at 126.90 (100 in 2015) in June, up 7.5 percent from June 2022. The index had been declining for three consecutive months since March this year and turned positive for the first time in four months in June.
Korea’s export value index fell 9.2 percent from a year earlier to 126.85, extending its decline to nine consecutive months. Its import volume index rose to 125.85, up 4.4 percent from the same month 2022, marking the first time in four months that the index turned positive. Its import value index was 147.37, down 12.0 percent year on year. This was the fourth consecutive month of a decline.

The import and export value index is an indicator of import and export value in current dollars divided by import and export volume index.

In June, Korea’s net terms of trade index stood at 85.36, up 0.2 percent from a year earlier. The index turned positive for the first time in 27 months, with import prices (-15.7 percent) falling more than export prices (-15.5 percent). On a month-on-month basis, the index rose 2.4 percent.

“This was because a decline in import prices was bigger than a decline in export prices due to the expansion of the base effects of international oil prices and a slowdown in semiconductor prices,” said Seo Jeong-seok, head of the price statistics team at the BOK.

In fact, according to the BOK, the volume of Korea’s semiconductor exports ascended from 8.1 percent in May to 21.6 percent in June on a year-on-year basis. The value of its exports also dropped 28.0 percent in June compared to 35.7 percent in May, showing a slowdown in its descent.

“An increase in Korea’s export volume in June can be explained by an increase in its exports of transportation equipment, semiconductors, and chemicals,” Seo said. “In the case of semiconductors, there are signs of price rebounds in some products when observing the flow of market prices that affect fixed prices.”

With both Korea’s export volume index and net terms of trade index climbing, Korea’s income terms of trade index rose to 108.32 in June, up 7.7 percent year on year.

**Turn to Surplus**

**Trade Deficit Overcome After 16 Months**

By Jasmine Choi

South Korea’s monthly trade balance has successfully turned into a surplus for the first time in 16 months. This has been a result of a decrease in imports due to a drop in international oil prices amid the strong performance of car exports. Expectations for an export surplus in the second half of the year have increased as the rate of export decrease reached its lowest level of the year.

According to the Ministry of Trade, Industry and Energy on July 2, last month’s exports decreased by 6% compared to the previous year, recording US$54.2 billion (approximately 71.5 trillion won), while imports decreased by 11.7%, recording US$53.1 billion, resulting in a US$1.1 billion surplus. This transition into surplus is especially significant after 15 consecutive months of trade deficits from March last year to May this year. The 15-month consecutive deficit was the longest period since the 29 consecutive months of deficit recorded just before the IMF foreign exchange crisis (January 1995 - May 1997).

June’s exports were recorded at US$54.24 billion, down 6.0% from the same month last year. However, the June export decline rate dropped to the lowest level of the year. It is interpreted as due to the delay in recovery of the semiconductor industry, a major domestic export item, and the base effect resulting from the record high export performance in June last year (US$57.7 billion).

By country, the trade deficit with China, the country’s largest trading partner, continued for nine months since last October. The deficit with China in June was recorded at US$1.3 billion. This is the lowest level since last February. The country with the highest deficit changed from China to Japan (US$1.78 billion).

Trade surpluses occurred in countries and regions such as the United States (US$4.06 billion), ASEAN (US$1.92 billion), and Vietnam (US$2.3 billion).

By item, exports of automobiles (58.3%), general machinery (8.1%), ships (98.6%), and secondary batteries (16.3%) increased. Exports of items such as semiconductors (-28.0%), petroleum products (-40.9%), and petrochemicals (-22.0%) decreased due to price declines.

The reason for this month’s trade surplus was largely due to the significant influence of a decrease in imports from the decline in international energy values, including oil. The price of Dubai oil, which was US$113.27 per barrel last June, dropped to US$74.99 last month, a 33.8% decrease. June imports of the three major energies including crude oil decreased by 27.3% compared to the same period last year, to US$9.99 billion.

South Korea, which has a high dependence on overseas energy, spends about one-fifth of its total import cost on the import of three major sources of energy – oil, coal, and gas.
For Postwar Reconstruction

Korea-Poland Commits to Strategic Collaboration for

‘Ukrainian Marshall Plan’

By Jasmine Choi
The South Korean government and private companies are plunging into Ukraine's reconstruction project, which is estimated to be worth around 1.5 quadrillion won in total. The government, in partnership with Poland, Ukraine's neighboring country and the largest Ukrainian supporter within Europe, aims to secure a project worth around $52 billion (approximately 66 trillion won), attracting international attention.

The recent reconstruction project in Ukraine is often referred to as 'the second Marshall Plan.' The project focuses not only on the restoration of basic infrastructure, but also on the construction of infrastructure that could propel Ukraine's future development.

Choi Sang-mok, the Presidential Chief Economic Advisor accompanying President Yoon Suk-yeol's official visit to Poland, stated in a local briefing in Warsaw, Poland, on July 13 (local time), "The Ukrainian government is striving to 'rebuild' beyond repairing war damages and to 'new build' to upgrade the national system." He expressed hope that "our technology and experience, which have led to the 'Miracle of the Han River' from ruins due to war, will be utilized in reconstruction.

Starting from the second half of this year, Ukraine plans to establish smart city master plans in Kyiv and Uman using South Korean technology. This planning process, which outlines a cutting-edge city system, is seen as an opportunity for South Korean companies to secure a foothold in various projects, such as advanced transportation systems and smart water management.

The government plans to carry out modular construction pilot projects for emergency facilities such as schools, housing, and hospitals. For the private-led project worth around $32 billion, tailored support is planned. A joint civil and private project support team will be formed for each project, and training programs, such as company visits for Ukrainian civil servants, will be initiated from this year.

The presidential office stated that President Yoon Seok-yeol, in the Korea-Poland summit held the day before, said, "Both leaders agreed that Korea and Poland could be the best partners in Ukraine's reconstruction." The collaboration between Korea, with its know-how and technology in post-war reconstruction, and Poland, a neighboring country of Ukraine which can support the reconstruction, is seen as maximizing the possibility of project success.

Last year, Poland, which imported weapons worth $13 billion (approximately 16.8 trillion won) from Korea, is also cooperating with Korea in nuclear power plants and airport and high-speed rail construction projects, areas where Korea's technological capabilities have been recognized.

The 'Korea-Poland Transportation Infrastructure Development Cooperation MOU' signed between Minister Won Hee-ryong of the Ministry of Land, Infrastructure and Transport and Poland's Minister of Infrastructure focuses on developing east-west and north-south transportation axes in Poland and Central and Eastern Europe. Agreements have also been made for mutual visits between government and company representatives, expert groups, and the operation of high-level and practical consultation bodies.

President Yoon mentioned the defense industry, which has become a catalyst for strengthening cooperation between the two countries, stating, "We have discussed plans for additional imports of Korean weapons in Poland, and we welcome Korea's participation as a leading country in the Polish International Defense Exhibition this year." He added, "The two of us have agreed to make more efforts to ensure that cooperation in the defense sector between the two countries proceeds mutually beneficially." While the additional introduction plan might take some time due to the large amount of orders last year, the possibility has been opened through dialogue between the two leaders.

Ukraine, Poland Ask for Korea’s Investment to Aid Their Economic Growth, Reconstruction

Earlier, South Korean Minister of Land, Infrastructure, and Transport Won Hee-ryong meets with Polish Minister of Infrastructure and Construction Andrzej Adamczyk in Warsaw, Poland on May 23 (local time).

Senior members of the Ukrainian and Polish governments asked Korean Minister of Land, Infrastructure, and Transport Won Hee-ryong to make investment in the Three Seas Initiative (3SI) during Won’s visit to Poland to discuss Korea’s participation in Ukraine’s reconstruction project.

The 3SI envision the connection of 12 countries surrounded by three seas -- the Adriatic, Baltic, and Black Seas -- by railways, roads, and ports to pursue common economic development, while keeping Russia in check in terms of transportation and traffic.

A bird’s-eye view of a factory in Ohio, the U.S., owned by Ultium Cells LLC, a joint venture between GM and LG Energy Solution.
Polish Minister of Infrastructure and Construction Andrzej Adamczyk and Deputy Minister of Infrastructure of Ukraine Oleksandra Azarkina requested Korean government and companies to have an interest in the 3SI in a meeting with Won in Warsaw on May 23 (local time).

The 3SI has 12 member countries, including Poland, Austria, Hungary, Croatia, Romania, Latvia, and Estonia. The project was started to make up for lagging development under the Soviet Union’s influence.

While Western European countries developed together by connecting roads, railroads, and oil and gas pipelines, Eastern European countries were left behind due to poor transportation and logistics networks between them.

Under these circumstances, Poland and Croatia have been promoting joint development of energy, transportation, logistics, and digital infrastructure. The United States has committed to investing US$1 billion in the project.

After Russia’s invasion of Ukraine, it also means creating a transportation blockade against Russia. The idea is to build a comprehensive rail, road, and port transportation network that connects all Eastern European countries except Russia and Belarus, and to counter Russia through common projects.

On the same day, Minister Won signed a memorandum of understanding (MOU) on expanding cooperation in reconstruction projects with his Ukrainian counterpart Azarkina.

“Ukraine and Poland strongly requested the Korean government’s and companies’ advice and investment in the 3SI,” Won said, “Ukraine needs not only grain but building materials and raw materials to win the war with Russia.”

Ukraine also asked for South Korea’s cooperation in facilitating grain exports. It wants South Korea, a shipping and shipbuilding powerhouse, to help Ukraine in securing free navigation rights at the International Maritime Organization. Russia’s threat has disrupted Ukraine’s grain exports through the Black Sea, causing Ukraine’s economic difficulties and hampering the country securing reconstruction funds.

Won said that the Ukrainian government cited the supply of energy including electricity and the restoration of destroyed roads as urgent tasks.

Ukraine Wants Future Partnership with Korea for Its Reconstruction

Yuliia Svyrydenko, first deputy prime minister of Ukraine who visited Korea, expressed her wish to see major Korean companies participate in projects to rebuild a postwar Ukraine. As Ukraine’s post-war recovery costs are estimated to reach a maximum of 1.4 quadrillion won, South Korea’s steel, construction equipment, and energy industries are expected to benefit.

The Korea Chamber of Commerce and Industry (KCCI) in cooperation with the Embassy of Ukraine in Seoul held a meeting on the future cooperation between Korea and Ukraine at the KCCI Chamber Lounge on May 16.

Ukraine’s reconstruction project, dubbed the “second Marshall Plan,” has been accelerating in the form of loans and investments from governments of countries around the world, the International Monetary Fund (IMF), the European Investment Bank (EIB), the European Bank for Reconstruction and Development (EBRD), and others.

“The Korean people sympathize with the Ukrainian people over their sufferings due to the war,” said Woo Tae-hee, senior vice chairman of the KCCI. “Korea has experiences in post-war reconstruction after the Korean War and realized the ‘Miracle of the Han River.’ We look forward to seeing Korean companies play many important roles in the post-war reconstruction of Ukraine.”

“We are grateful to Korea for its friendship with and trust in Ukraine,” Svyrydenko said, noting that the two countries have successfully maintained cooperation during the COVID-19 pandemic and the war with trade volume reaching more than US$800 million over the past three years.

“Ukraine has great growth potential in the fields of green energy and green hydrogen,” Svyrydenko added. “Ukraine would like to cooperate with Korean companies with excellent technology in many fields such as green metals and green fertilizers,” she said. “Ukraine is also an excellent potential market for special equipment for nuclear power plants, as it runs nuclear power plants.”

Oleksandr Gryban, the deputy minister of economic development and trade for Ukraine, introduced during the meeting that, “The three main goals of the Ukraine reconstruction project are to strengthen resilience, promote recovery, and modernization.” He added, “The scale of the reconstruction project could reach up to $893.2 billion and is expected to be carried out over a period of 10 years.”

Around ten representatives from Korean companies, including the Korea Chamber of Commerce and Industry, Hyundai Construction, Lotte Construction, POSCO International, Hyundai Engineering, Doosan Research Institute, and Korea Aerospace Industries gathered at the meeting.

The event was organized by the Korea Chamber of Commerce and Indus-
try to discuss the possible involvement of Korean companies in the post-war reconstruction projects in Ukraine. The event invited Yulia Svirydenko, the Ukrainian Deputy Prime Minister and Minister of Economy, who is currently visiting Korea.

In the meantime, Hyundai E&C announced that it has signed an agreement with Boryspil International Airport in Ukraine on July 14 (local time) for an airport expansion project.

The signing ceremony took place in Warsaw, Poland, attended by Won Hee-ryong, minister of land, infrastructure and transport; Park Sun-ho, chairman of the Overseas Construction Association; Yoon Young-jun, CEO of Hyundai E&C; and Oleksii Dubrevskyi, director of Boryspil International Airport Corporation.

Boryspil International Airport is located approximately 29 kilometers southeast of the city center of Kyiv, the capital of Ukraine. It is the country's largest airport, handling 62% of the nation's passenger traffic and 85% of freight traffic. The airport corporation is currently conducting feasibility studies to modernize runways and build new cargo terminals following the end of hostilities.

Hyundai E&C plans to support the airport expansion project based on its accumulated technical capabilities from numerous domestic and overseas airport construction projects, including Incheon International Airport, Singapore’s Changi Airport, and Peru’s Chinchero Airport, as well as its leading role in post-war national reconstruction projects.

The company intends to broaden its scope of cooperation to include high-speed railways and national infrastructure in the future, and also to expand the foundation for promoting energy infrastructure projects. Hyundai E&C has formed an energy partnership with U.S.-based nuclear company Holtec International and will also jointly enter into the construction project of small modular reactors (SMRs, with a power generation capacity of 300,000 kW) for the reconstruction of Ukraine's energy infrastructure.

Yoon Young-jun, CEO of Hyundai E&C, stated, “We will actively cooperate in various areas, not only transportation infrastructure such as airports and railways, but also energy infrastructure, to reproduce the Miracle on the Han River for Ukraine's development.”

On the other side, on June 21, in a Ukraine Recovery Conference held in London, the U.K., Ukraine's Prime Minister Denys Shmyhal announced that more than US$60 billion (7.8 trillion won) will be needed for the recovery efforts over the next 12 months.

The World Bank has estimated the cost of recovery to exceed US$400 billion (520.16 trillion won). The Korea Trade Association has estimated the scale of the reconstruction project at 980 trillion won, while the Korea Trade-Investment Promotion Agency puts the estimate at around US$900 billion (1.171710 quadrillion).

With the end of the war in Ukraine, there are predictions that 29 to 30 trillion won worth of steel will be needed. This is due to the requirement of steel for constructing new roads, ports, bridges, and buildings to replace those destroyed.

HD Hyundai Construction Equipment has already expressed its intent to cooperate in the reconstruction efforts in Ukraine. On June 13th, Vasyl Shkurakov, the First Deputy Minister of the Ministry of Infrastructure of Ukraine, visited the Ulsan Campus and conveyed the intent to establish a close consultation system with the Ministry of Infrastructure of Ukraine to promote reconstruction projects such as the supply of construction equipment.

Earlier, Hyundai Construction had signed a contract for cooperation in the construction of Small Modular Reactors (SMR) with Holtec International in the United States on April 21, with the aim of reconstructing Ukraine's energy infrastructure. This followed the formalization of the construction of two new nuclear power plants by the Ukrainian government.

In light of this, nuclear-related companies such as Doosan Enerbility are expected to benefit. Doosan Enerbility is the only domestic producer of nuclear power plant cycle equipment and is preparing to supply the initial volume of cycle equipment for SMR, the future next-generation nuclear power plant.

Furthermore, as the Ukrainian government is also pushing for the construction of renewable energy infrastructure in addition to the reconstruction of its territory, benefits are expected for hydrogen and wind power-related companies.

In the meantime, The New York Times reported that South Korea’s defense industry is benefiting greatly from the war in Ukraine. According to the report, arms exports from South Korea hit an all-time high of US$17.3 billion last year, up 140 percent from a year ago, and those include US$12.4 billion of contracts concluded with Poland.

Poland is the easternmost part of NATO and shares a border with Ukraine. Since the outbreak of the war in February last year, Poland’s defense demand has soared for support for Ukraine and national security concerns.

“Major arms exporters such as the United States and Germany are facing production shortages for support for Ukraine,” it said, adding, “Since last year, the old weapons of Eastern European countries have been sent to Ukraine and new weapons have been exported from South Korea to those countries.”

According to the Stockholm International Peace Research Institute, South Korea was the world’s eighth-largest arms exporter from 2017 to 2021, with a market share of 2.8 percent. The market share and ranking are likely to rise this year.

Korea Pledges $10 Million to World Bank for Ukraine’s Reconstruction

The South Korean government plans to contribute US$10 million to the World Bank’s Ukraine Relief, Recovery, Reconstruction and Reform Trust Fund for Ukraine’s reconstruction.

On July 18, according to the Ministry of Strategy and Finance, while attending the G20 Finance Ministers’ meeting in Gandhinagar, India, Vice Prime Minister Choo met with the newly appointed World Bank President Ajay Banga to discuss mutual interests such as support for Ukraine and strengthening cooperation between South Korea and the World Bank.

Vice Prime Minister Choo first emphasized his support for the World
Bank’s ongoing efforts to aid Ukraine’s recovery. The South Korean government, through close cooperation between related agencies such as the Ministry of Foreign Affairs, also announced its plan to contribute US$10 million to the World Bank’s URTF for Ukraine’s aid this year.

He requested that Korean companies and personnel with rich development experience and capabilities actively participate in the World Bank’s forthcoming Ukraine reconstruction projects. President Banga thanked the Korean government for its support and assistance to the World Bank, expecting stronger cooperation between South Korea and the World Bank in various fields including Ukraine’s reconstruction, support for developing countries, and human resources exchange.

He also emphasized that while Korea’s financial and technical contributions are important for Ukraine’s reconstruction and recovery, Korea’s development experience from being a recipient country in the OECD to a donor after the Korean War would be of great help to developing countries like Ukraine.

Vice Prime Minister Choo met with Odile Renaud-Basso, president of the European Bank for Reconstruction and Development (EBRD), the largest institutional investor in Ukraine, on July 17 (local time) to discuss participation in Ukraine’s post-war reconstruction projects.

Vice Prime Minister Choo showed his support for the EBRD’s quick and flexible assistance to Ukraine and expressed his agreement in promoting general increases to achieve this. He then emphasized that Korea will actively participate in Ukraine’s post-war reconstruction projects based on its experience of successful reconstruction and economic growth after the war.

He also announced plans for a new contribution to the EBRD’s Crisis Response Special Fund (CRSF) established for Ukraine’s aid. Vice Prime Minister Choo suggested concrete measures to enhance the accessibility of Ukraine’s reconstruction projects, firstly proposing the promotion of cooperative loans between Korea’s Economic Development Cooperation Fund (EDCF) and the EBRD.

He asked for interest and support for the Korea Export-Import Bank’s participation in the Ukraine Investment Platform led by the EBRD and the G7 Development Finance Institutions (DFI). He suggested holding a separate session on the EBRD’s Ukraine reconstruction projects at the Multilateral Development Bank Project Plaza to be held in November.

More Funds for Polish Support

In line with President Yoon Suk-yeol’s visit to Poland, the Export-Import Bank of Korea (Korea Eximbank) and Korea Trade Insurance Corporation are set to sign a financial agreement with Bank Gospodarstwa Krajowego (BGK), the Polish state-owned bank. The financial institutions of both countries plan to jointly support export funds to assist Korean companies’ entry into the local market.

According to financial sources on July 11, Korea Eximbank, Korea Trade Insurance Corporation, and BGK planned to conclude a memorandum of understanding (MOU) for financial cooperation between the three parties. Yoon Hee-sung, the president of Korea Eximbank, and Lee In-ho, the president of the Korea Trade Insurance Corporation, who both accompanied President Yoon as part of the economic delegation, are expected to attend the signing ceremony in person.

BGK, the only state-owned bank in Poland, has been providing funds for major infrastructure projects such as energy and road construction within the country.

During the summit meeting between President Yoon and Polish President Andrzej Duda, collaboration methods in the fields of infrastructure, nuclear power, and defense are expected to be discussed. Both countries’ institutions are preparing financial support measures that include providing a wide range of loans and guarantees/insurance to domestic export companies participating in the projects.

Both institutions are considering large-scale infrastructure construction
projects, especially those involving plant operations within Poland. This comes as Korean construction companies like Hyundai Engineering have achieved impressive results such as winning the contract for the largest petrochemical plant project in Poland. Further support is needed to attract additional projects.

Korean public financial institutions are making concerted efforts to support expansion into Poland, an emerging new export market. In fact, Korea Eximbank has recently embarked on operational work to increase its credit limit with the authorities. The bank’s loan limit is determined by the legal capital limit and aims to expand it from the current 15 trillion won to increase its lending capacity. This revision is due to Poland’s request for additional financial support to import Korea’s defense materials.

The agreement between the institutions of the two countries may also pave the way for Korean companies’ entry into Ukraine’s reconstruction projects. During this visit, President Yoon plans to discuss cooperative measures for Poland and Ukraine’s reconstruction. Previously, Choi Sang-mok, presidential economic advisor, stated that “Poland is the hub of Ukraine’s reconstruction project,” adding, “Many countries are promoting entry into Ukraine in cooperation with Poland.”

Furthermore, South Korea will support the reconstruction of Ukraine, which is at war with Russia. It will provide about US$130 million through the Economic Development Cooperation Fund (EDCF), a form of paid aid.

Korean Deputy Prime Minister and Minister of Strategy and Finance Choo Kyung-ho held a bilateral meeting with Yuliia Svyrydenko, first deputy prime minister of Ukraine, and signed an EDCF loan agreement between the Korean government and the Ukrainian government at Shilla Hotel in Seoul on May 17.

Previously, the Korean government provided a total of US$100 million in support, including humanitarian assistance, to Ukraine last year. In February it announced its intention to provide an additional US$130 million in support.

The EDCF is the Korean government’s long-term and low-interest loan to the governments of developing countries to support their economic and industrial development. A loan agreement is a treaty that establishes the fact that the Korean government will loan these funds to a recipient country and states general principles about the loan.

The two governments have been negotiating a donor agreement, which is a procedural requirement for assistance to Ukraine through the EDCF. With the recent completion of the working group between the two ministries, the formal signing is expected to take place during the visit of the deputy prime minister of Ukraine. The two sides agreed to actively cooperate in subsequent steps, including project development, to ensure that future support can be realized via the EDCF.

**MOLIT to Send Reconstruction Cooperation Delegation to Ukraine in Late August**

One Team Korea will dispatch a reconstruction cooperation delegation to Ukraine by the end of August.

According to the Korean Ministry of Land, Infrastructure, and Transport (MOLIT) on July 24, the Korean government recently assembled a reconstruction cooperation team with government officials and those from Korean companies and began preparations to dispatch the team to Ukraine.

One Team Korea will include those from about 10-plus Korean companies from the construction, energy, water, IT, and railroad sectors that are willing to participate in Ukraine’s reconstruction projects. MOLIT Minister Won Hee-ryong will head up the team.

Participating Korean companies have not yet been finalized, but it is likely that some Korean companies participated in the meeting for cooperation in Ukraine’s reconstruction held during President Yoon’s visit to Poland, so they are highly likely to fly there. Eleven companies and organizations that participated in the meeting were Samsung C&T, Hyundai E&C, Kolon Global, HD Hyundai Site Solutions, Hyundai Rotem, Yooshin Engineering, Naver, LH Corporation, Korea Water Resources Corporation, the International Contractors Association of Korea, and the Export-Import Bank of Korea.

“We are still in the process of reviewing the content while establishing a plan and nothing has been finalized as to when we will send the delegation,” an MOLIT official said. “The schedule is not yet fixed. We need to collect the opinions of the Ukrainian side. We need to check our schedule as well. The participating companies have not yet been decided.”
According to the 2022 International Investment Balance Sheet by Region and Currency (Provisional) released by the Bank of Korea (BOK) on June 27, the balance of Korea’s external financial assets, excluding reserves, stood at US$1.7456 trillion at the end of last year. This represented a drop of US$16.2 billion from a year earlier.

External financial assets are investments made by Koreans in foreign financial instruments or foreign direct investments made by Korean companies. It combines direct investment in equity, investment in securities such as stocks and bonds and other investment assets such as derivative financial instruments and cash.

The year of 2022 marked the first time Korea’s external financial assets have declined year on year since 2002, when statistics began to be compiled. This was due to weak stock markets in the United States and other major economies in 2022, as well as the U.S. dollar’s continued strength against other major currencies, including the Korean won.

Of special note is that the balance of Korea’s investment in China plummeted. At the end of last year, the balance stood at US$151.8 billion, down US$14.6 billion in one year. This is larger than declines in investments in other countries over the same period, including a drop of US$1.9 billion in Korea’s investment in the United States and a drop of US$4.7 billion in Korea’s investment in Japan. Other factors, such as the depreciation of the yuan against the U.S. dollar and a sluggish Chinese stock market, also contributed to the decline in Korea’s investment in China.

In fact, at the end of 2022, the balance of Korea’s other investments in China came in at US$28.5 billion, down by US$8.4 billion from a year earlier. Apart from cash and deposits, other investments include trade credit.

This means that China’s lockdown and the U.S.-China trade dispute dampened Korea’s exports to China in 2022. In fact, Korea ran a deficit in economic transactions with China for the first time in 21 years in 2022. Due to these sluggish exports, Korea’s current account deficit with China hit US$7.78 billion in 2022.

Meanwhile, the balance of Korea’s investment in Southeast Asia swelled in 2022 while it contracted in all other regions, including China, the United States, and Japan.

At the end of last year, the balance of Korea’s investment in Southeast Asia stood at US$244.8 billion, up by US$19.9 billion from a year earlier. This was due to an increase in foreign direct investment by Korean companies from US$132.4 billion to US$144.2 billion over the same period.

In 2022, Korea’s foreign direct investment in Southeast Asia accounted for 22.3 percent of the total. It is the second highest after its foreign direct investment in the United States (27 percent).

External financial debt, the amount of foreign investment in Korea, stood at US$1.397 trillion at the end of last year, down by US$142.3 billion from 2021. The balance of investments in Korea by all regions sank due to non-trading factors such as a decline in Korean stock prices and the depreciation of the Korean won against the U.S. dollar.

U.S. dollar-denominated financial assets were the largest at US$1.0213 trillion. This was followed by euro-denominated financial assets at US$165.4 billion (9.5 percent) and Chinese yuan-denominated financial assets at US$11.6 billion (6.3 percent). Year over year, the balance of U.S. dollar-denominated investments climbed by US$5.7 billion, while Chinese yuan, euro, and yen-denominated investments decreased by US$13.1 billion, US$9.5 billion and US$7.8 billion, respectively.

As for external financial debts, Korean won-denominated debts were the largest at US$87.13 billion. U.S. dollar-denominated debts were tallied at US$405.3 billion (29 percent) and euro-denominated debts sat at US$41.0 billion (2.9 percent).
Unprecedented Korea-US Difference

No Massive Capital Outflow from Korean Foreign Exchange Market despite Interest Rate Differential

By Jung Suk-ye

The difference in interest rates between Korea and the United States, which has reached 2 percentage points for the first time in history, is expected to continue for quite some time. However, the Korean foreign exchange market has been calm, starting at a low point in early trading despite concerns over increased volatility.

The U.S. Federal Reserve’s baby step (an 0.25 percentage point increase in the key interest rate) on July 26 (local time) widened the divergence between Korea (3.50 percent) and the United States (5.25 to 5.50 percent) to 1.75 to 2.00 percentage points on July 26. This marked the first time the Korean foreign exchange market saw a 2 percentage point inversion based on the top end.

As a non-key currency country, Korea is bound to be burdened by the widening interest rate divergence with the United States. This is because it is difficult to rule out the possibility that foreign funds in the Korean stock and bond markets will leave in search of higher interest rates, forcing the Korean won to depreciate. Another concern is the current level of tightening in the United States, which is likely to continue throughout the second half of this year.

However, the Korean foreign exchange market seemed unaffected. In the morning of that day, the won-dollar exchange rate began at 1271.1 won, down 3.4 won, on the Seoul foreign exchange market, hovering in the 1,260 won range in early trading. The Korean government, the BOK, and financial authorities are banking on the prospect of no massive foreign capital outflow crisis despite heightened uncertainties in financial markets.

“Despite the prospect of widening interest rate differentials at home and abroad, the exchange rate has remained stable and the Korean foreign capital market is in good shape,” Choo Kyung-ho, Korean deputy prime minister and minister of planning and finance, said in an emergency macroeconomic and financial meeting he chaired in Seoul on July 27. Foreign investment funds have seen net inflows of more than 22 trillion won so far this year, and inflows climbed in May and June after the interest rate differential between Korea and the U.S. reached 1.75 percentage points.

However, the BOK’s woes are likely to grow as Powell left open the possibility of another rate hike in September. If the divergence between Korean and U.S. interest rates becomes wider and prolonged, the BOK will have no choice but to seriously consider resuming its tightening program. The BOK will monitor foreign capital flows and foreign exchange market volatility to decide whether or not to raise the benchmark rate further on Aug. 24.
As foreign investment in domestic securities saw an increase and the exchange rate between the Korean won and U.S. dollar stabilized, banks experienced a historic surge in their daily average foreign exchange trading volume in the second quarter.

According to the Bank of Korea (BOK) on July 26, the daily average foreign exchange trading volume, comprising spot exchange and foreign exchange derivatives, for foreign exchange banks during the second quarter of this year amounted to US$69.37 billion (88.45 trillion won). This figure represented a considerable upswing of 3.8 percent, equivalent to US$2.53 billion, compared to the preceding quarter. Notably, it is the highest volume recorded in 15 years since statistical data collection began in 2008.

The BOK said, “With an increase in foreign investment in domestic securities and reduced volatility in the exchange rate between the Korean won and the US dollar, the foreign exchange market stabilized compared to last year and it led to a rise in interbank transactions.” Notably, the volatility of the won-dollar exchange rate declined from 0.67 percent in the fourth quarter of the previous year to 0.54 percent in the first quarter of the current year, and further to 0.43 percent in the second quarter. Consequently, as foreigners’ monthly securities transactions grew from US$15 billion in the first quarter to US$18.23 billion in the second quarter, interbank transactions emerged as the primary driver of this growth.

Breaking down the foreign exchange trading by product, the spot exchange trading volume rose by 7.6 percent to US$28.47 billion compared to the previous quarter, while foreign exchange derivative trading volume recorded a 1.3 percent increase, reaching US$40.9 billion.

Significantly, within the spot exchange segment, won-dollar trading totaled US$19.9 billion, experiencing a remarkable 5.3 percent rise within a month. Among foreign exchange banks, interbank transactions accounted for the largest share, totaling US$15.21 billion, with a growth rate of 13.5 percent. Domestic customer transactions with foreign exchange banks amounted to US$7.72 billion, while non-resident transactions stood at US$5.54 billion.

For derivatives, futures exchange trading saw a decline, while foreign exchange swap trading increased. The BOK stated, “Futures exchange trading decreased by 5.7 percent compared to the previous quarter, with non-resident non-deliverable forwards (NDF) trading as the main driver. However, foreign exchange swap trading increased by 5.2 percent compared to the previous quarter, primarily driven by interbank transactions among foreign exchange banks.”

By individual banks, domestic bank trading volume surged by 8.6 percent to US$31.57 billion compared to the previous quarter. Meanwhile, foreign bank branches in Korea recorded US$37.79 billion in trading volume, indicating a slight increase of 0.1 percent compared to the previous quarter.
In the first six months of this year, the net issuance of Korean Paper denominated in foreign currencies by domestic residents, excluding the government, amounted to US$13.3 billion. This marks a significant increase compared to the previous year’s annual net issuance of US$11.4 billion. Furthermore, by the end of last month, the outstanding balance of foreign currency-denominated bonds has exceeded an unprecedented US$200 billion for the first time ever.

According to the Bank of Korea (BOK) on July 23, its International Balance Sheet Team posted a blog article titled “Recent Trends in Foreign Currency Bonds and Repayment Conditions,” revealing that “the scale of foreign currency bond maturities during the first half of this year was US$17.2 billion, the largest since 2018. However, with a total issuance of US$30.5 billion, the net issuance reached US$13.3 billion.” This figure surpasses last year’s entire net issuance of US$11.4 billion.

The International Balance Sheet Team said, “Even with the increased volatility in the global financial markets caused by events like the Silicon Valley Bank and Credit Suisse incidents in March, there has been a continued trend of substantial net issuances. As of the end of June, the outstanding balance of foreign currency-denominated bonds exceeded US$20 billion for the first time.”

The issuance of foreign currency bonds serves as one of the means to acquire foreign funds and provide liquidity to the domestic market. However, it is also a significant indicator of the soundness of the foreign exchange sector, and its growth can reflect potential risks. While an increase in issuance can improve domestic foreign liquidity conditions, it may also lead to higher future repayment burdens, posing potential risks in the foreign exchange sector. The survey indicates that private and public companies have carried out large-scale net issuances of foreign currency bonds to secure funds for foreign direct investment and operational expenses.

Throughout the first half of the year, the market witnessed a significant net issuance of foreign currency bonds primarily due to the expected shift in the monetary policy of the U.S. Federal Reserve, known as the pivot, which considerably improved investor sentiment towards credit bonds in the bond market. Moreover, concerns over China’s economic slowdown led to the outflow of bond investment funds, and a portion of these funds were redirected into foreign currency bonds, further impacting the market. The increasing demand for foreign funds by banks and companies was also driven by the need to accommodate domestic companies’ significant overseas direct investments in response to the changing dynamics of the global supply chain.

It is estimated that the maturity amount of foreign currency bonds in the second half of this year will reach US$22.3 billion. This is substantially larger than the average from 2016 to 2022, which stood at US$15.2 billion. Particularly noteworthy is the month of July, where the maturities are expected to reach US$7.8 billion, the highest amount for any month during this period. However, the BOK forecasts no major concerns regarding repayments or rollover issuances considering that the primary issuers of these maturing foreign currency bonds are banks and state-owned enterprises with strong credit ratings and sufficient foreign currency reserves.

Nonetheless, the rise in foreign currency bond issuance rates is expected to lead to an increased interest burden for the issuers in the near term, raising concerns about their financial soundness. The average 10-year U.S. Treasury yield, which serves as a benchmark, climbed 0.7 percentage points from last year’s average of 2.9 percent to 3.6 percent in the first half of this year. As a result, the average issuance rate of foreign currency bonds also surged to 4.9 percent, a whopping 1.3 percentage point increase compared to last year’s 3.6 percent. Considering that the average issuance rate for maturing foreign currency bonds in the second half of the year is around 3 percent, it is expected that interest costs will experience a considerable surge if there is a rollover issuance.

First Six Months
Net Issuance of Korean Paper Denominated in Foreign Currencies Reaches US$13.3 Billion
By Jung Min-hee
Chinese banks that have entered the Korean market have faced a wave of sanctions from the Financial Supervisory Service (FSS) for breaching reporting obligations.

The simultaneous sanctions imposed on Chinese banks are considered unusual, demonstrating the financial authorities’ determination to take action against acts that disrupt the financial market, regardless of whether they are domestic or foreign banks.

According to financial industry sources on July 22, the FSS has imposed sanctions on Industrial and Commercial Bank of China (ICBC) Seoul Branch, Agricultural Bank of China (ABC) Seoul Branch, and China Construction Bank (CCB) Seoul Branch for violating reporting requirements related to the appointment and dismissal of executives and failing to report on collateral loans exceeding 20 percent in equity securities. As a result, the FSS ordered the respective staff members to be dealt with independently.

In accordance with regulations, financial institutions are required to report executive appointments or dismissals to the FSS head within seven business days.

However, ICBC Seoul Branch did not submit reports on four instances of executive appointments and dismissals to the head of the FSS within the stipulated period from January to March 2018. Furthermore, during the period from August 2020 to September 2021, seven similar incidents occurred where the bank did not report such information to the FSS head or disclose it on the Korea Federation of Banks’ website.

ICBC Seoul Branch was found to have omitted timely reporting to the head of the FSS regarding 43 cases of loans backed by equity securities exceeding 20 percent of other companies from November 2017 to May last year.

Similarly, ABC Seoul Branch was also caught for delayed reporting to the FSS head regarding nine cases of loans backed by equity securities exceeding 20 percent of other companies from December 2018 to December 2020.

CCB Seoul Branch neglected to report the reappointment of its branch manager within the designated period in July 2020 to the head of the FSS. Moreover, when the branch manager was dismissed in March last year and a new branch manager was appointed, the bank once again failed to report to the FSS head on time, leading to its exposure.

During the examination conducted by the FSS, CCB Seoul Branch was detected to have breached reporting obligations for collateral loans backed by equity securities. The violations took place in 38 cases from November 2017 to December 2020 and in seven cases from April 2021 to March last year.

Last June, the FSS discovered a case where one employee had violated the obligation to report high-value cash transactions during the inspection of ICBC Seoul Branch. Consequently, the employee was subjected to a “warning” sanction.

An official from a domestic commercial bank said, “There have been discussions about the relatively lenient punishment imposed on Chinese banks that violated regulations, such as reporting obligations, compared to the substantial fines and penalties faced by domestic banks operating in China.”
In a bid to enhance financial stability, commercial banks will now have to adopt a revised Probability of Default (PD) model that takes into account “extraordinary crisis situations” like the International Monetary Fund (IMF) crisis or global financial downturns when provisioning their loan loss reserves. This new PD model must receive approval from financial regulators and is expected to lead to a more conservative approach in reserve calculations, resulting in higher reserve allocations by banks. Beginning with their financial reports for the second quarter of this year, banks will apply this new PD model.

According to financial industry sources on July 25, the Korean Bankers Association issued the updated guidelines for loan loss reserves to commercial banks. These guidelines were developed by a specialized task force consisting of financial regulators and bank professionals.

The revised guidelines include the provision that “banks may utilize a ‘representative PD’ in determining their reserve allocations.” Until now, banks have relied on their internally estimated “experience PD” to determine the appropriate reserve size. However, under the new guidelines, banks must also take representative PD into consideration.

Experience PD reflects the predicted default rate for the next year by comprehensively analyzing the trend of non-performing loans over a specific period. For instance, it forecasts the default rate for the next year based on the non-performing loan trends observed over the last decade. On the other hand, the representative PD is linked to the “regulatory purpose PD” utilized by banks when calculating the Basel Committee on Banking Supervision (BIS) ratios. Regulatory purpose PD is a conservative default rate calculated by considering extreme crisis scenarios such as the IMF crisis or global financial crises in the past. Banks generally find regulatory purpose PD to be 1.3 to 2 times higher than experience PD, leading to higher reserve provisions when applying representative PD.

An important aspect of the new guidelines is that the regulatory purpose PD necessitates approval from financial regulators. This signifies a more direct involvement of regulators in the process of determining reserve provisions compared to their previous practice of merely recommending that banks increase their reserves.
The Fund Management Division of the National Pension Service (NPS) announced on June 30 that it has selected a total of three institutions as private equity fund (PEF) managers for domestic alternative investments in 2023. Following the announcement of the selection plan last March, and after the proposal review process, Macquarie Asset Management, IMM Private Equity, and Hahn & Co. were chosen. Each fund of the selected domestic alternative investment managers will operate based on an investment period of 5 years and a fund maturity of 10 years. The Fund Management Division plans to allocate a total of up to 800 billion won (US$613 million).

As of the end of April 2023, the National Pension Service manages alternative investments, such as private equity investments and real estate, equivalent to 16.1% of the total fund assets, amounting to 156.8 trillion won. Seo Won-ju, the head of the NPS Fund Management Division, said, “We will continue to diversify the portfolio of the National Pension Fund through the expansion of alternative investments and strive to enhance the long-term stability and profitability of the fund.”

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As the KOSPI recovered to the 2,600 range, the average daily short-selling transaction amount of Korean stocks increased 25 percent in July, according to the Korea Exchange. According to the Korea Exchange on July 16, the average daily short-selling transaction amount stood at 553.9 billion won (US$437.8 million) in the KOSPI market and 323.5 billion won in the KOSDAQ market from July 1 to 13.

The average daily short-selling transaction amount in the KOSPI market jumped 27.24 percent from 435.3 billion won in June. That of the KOSDAQ market also climbed 22.21 percent from 264.7 billion won in June. The two stock markets posted a combined increase of 25.34 percent.

Analysts say that the increase in the average daily short-selling transaction amount was due to the high volatility of stocks even when the KOSPI was not fluctuating much. In the KOSDAQ market, the influence of EcoPro and EcoPro BM was overwhelming. From July 1 to 13, EcoPro BM stocks showed the highest short-selling transaction amount of 741.3 billion won in the KOSDAQ market, followed by EcoPro stocks (361.1 billion won).

Each of the stocks’ short-selling transaction amounts surpassed that of Samsung Electronics stocks (281.6 billion won) in the KOSPI market. Samsung Electronics ranked first in market capitalization and second in short-selling transaction amounts among companies in the KOSPI market.

The two companies’ combined total can eclipse the short-selling transaction amount (913.1 billion won) of LG Energy Solution stocks, and 913.1 billion won was the largest short-selling transaction amount in the KOSPI market during the same period.

As of July 13, EcoPro BM’s stock price was up 13.05 percent from the end of June and the company’s stock price surged 26.79 percent. On July 10, EcoPro’s stock price crossed one million won during the stock market.

Stock market experts warned that an increase in short selling can be a warning sign of overvalued stocks. “Although the index has seen a very small adjustment since the beginning of July, it cannot be considered a major adjustment as it remained above the 2,500 range even at the lowest point,” said Kim Seok-hwan, a researcher at Mirae Asset Securities. “Increased short selling of a stock reflects the stock market’s perception that the stock price is overvalued compared to the fundamentals, which is the intrinsic value of the company.”

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Fund Diversification
National Pension Service Selects Macquarie, IMM, Hahn as PEF Managers

By Jasmine Choi

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High Stock Volatility
Short-selling Transaction Amount Grows 25% in July

By Yoon Young-sil

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High Stock Volatility
Short-selling Transaction Amount Grows 25% in July

By Yoon Young-sil
The market capitalizations of the 10 largest Korean conglomerates have reached 40 trillion won in a month and a half, according to securities information firm FnGuide.

According to FnGuide on July 25, market caps swelled by 3.05 percent to 1,341.2603 trillion won (US$1.0533658 trillion) as of the close of the stock market on June 21 from 1,301.6096 trillion won on June 1.

POSCO Group’s market cap surged more than 50 percent, from 66.6307 trillion won to 100.951 trillion won. By individual company, the order was Hanwha Ocean (226.99 percent), POSCO DX (175.82 percent), POSCO International (69.62 percent), POSCO Steelleon (62.24 percent), and POSCO Holdings (52.63 percent). It is noteworthy that four POSCO Group stocks are among the top five in terms of market cap growth.

During the same period, Hanwha and HD Hyundai also posted double-digit growth, rising 30.65 percent and 22.36 percent, respectively.

Hanwha Group’s market cap increased 30.65 percent to 32.5854 trillion won as of the close of the stock market on July 21, up from 24.9411 trillion won at the beginning of June.

Hanwha Ocean’s market cap inflated 226.99 percent, driving the growth of Hanwha Group’s market cap. The company changed its name from Daewoo Shipbuilding & Marine Engineering (DSME) on May 23. A slew of good news for the Korean shipbuilding industry has arrived as expectations for a recovery have been on the rise.

Among the big four Korean business groups (Samsung, LG, SK and Hyundai Motor), Hyundai Motor Group had the highest market cap growth rate. Its market cap ascended by 3.50 percent during this period. SK Group followed with a modest increase of 0.66 percent, while Samsung’s and LG’s market caps declined by 0.70 percent and 2.50 percent, respectively.

GS was the group with the largest market cap drop. Its market cap plummeted by 7.87 percent to 9.17 trillion won on July 21 from 9.9603 trillion won at the beginning of June. This is because GS E&C lost over 30 percent of its market cap as its stock price plummeted after a parking lot collapse.

Lotte Group’s and Shinsegae Group’s market caps also shrank by 7.87 percent and 5.32 percent, respectively.
The financial authorities are significantly easing restrictions on overseas subsidiary investment and capital support to activate overseas expansion of domestic financial companies. Consequently, domestic banks will have looser restrictions on investing in foreign non-financial companies, and insurance companies will be able to own foreign banks.

On July 17, the Financial Services Commission (FSC) held the 8th Financial Regulation Reform Meeting at the Seoul Government Complex in the Jongno district of Seoul and discussed regulatory improvement measures to facilitate the overseas expansion of financial companies.

First, the FSC is planning to significantly expand the scope of overseas subsidiaries that financial companies can own. The restrictions on investing in overseas financial and non-financial companies by banks, insurance companies, specialized credit finance companies, and fintech companies will be eased within the limits allowed by local laws overseas. This is intended to enable them to be competitive in overseas markets by diversifying their businesses to match local financial demands.

For example, a domestic specialized credit finance company that provides auto financing could expand its business channels by acquiring a rental car company overseas, or an insurance company could be permitted to own a foreign bank. It is also becoming possible for a fintech subsidiary of a financial holding company to acquire an overseas subsidiary that conducts investment advisory and asset management businesses.

The FSC is also going to ease restrictions on capital support to overseas subsidiaries. Overseas local corporations have difficulties raising funds locally due to a lack of creditworthiness and collateral in the early stages of their entry. However, they have also been limited in fundraising from domestic affiliates due to regulations on credit limits between subsidiaries under the Financial Holding Company Act. The FSC plans to alleviate these difficulties in fundraising by allowing additional credit limits (within 10% points) for a certain period through amendments to the Financial Holding Company Supervision Regulations.

In addition, the provision of collateral for subsidiaries of insurance companies will be allowed. Domestic insurance companies can provide government bonds and similar securities as collateral to local banks, and these local banks can guarantee the debt of overseas subsidiaries, enabling a substitution for operating funds through this guarantee system. Currently, insurance companies can only guarantee debt for their subsidiaries.

The FSC plans to make exceptions or exclude regulations that are inappropriate to apply to overseas branches as they are based on domestic application. Moreover, the FSC is going to overhaul the system of reporting and disclosure-related regulations so that financial companies will not have to report and disclose duplicate foreign direct investment activities. When conducting on-site inspections of overseas corporations, the FSC plans to perform audits that focus on prevention and improvement of soundness and internal control, taking into consideration local regulations and market conditions.

Loosening Strictures
Korean Insurers Can Now Own Foreign Banks
By Kim Eun-jin
The Financial Supervisory Service (FSS) has responded to the complex issue surrounding the accounting treatment of Contractual Service Margins (CSM), which is considered a future revenue indicator under the new insurance accounting standard, IFRS 17. Given the initial apprehensions about potential earnings inflation among some insurance companies planning to conduct “retroactive application” of the standard, the FSS has taken a proactive stance to prevent any undue overstatement of profits.

The FSS organized an “IFRS 17 Guideline Accounting Treatment Seminar” at its headquarters in Yeouido on July 27. The seminar aimed to consolidate the insurance industry’s differing viewpoints and opposition regarding the accounting treatment methods for CSM, following the release of the CSM guideline for accounting assumptions last month. Notable attendees included CEOs of the top 10 major life and non-life insurance companies, the Chairman of the Life and Non-life Insurance Association, and representatives from four accounting firms’ audit departments.

In its response, the FSS categorized the accounting changes resulting from the application of the accounting assumption guidelines as “changes in accounting estimates.” While forward application is the guiding principle, the FSS allowed for the possibility of companies and auditors retroactively restating financial statements if it is deemed more appropriate for expressing the economic substance.

In such cases, the FSS stipulated that the revised financial statements should be categorized and disclosed under insurance liabilities (BEL, RA, CSM), equity items, and current period profits to ensure comparability and fairness when compared to companies applying the forward method.

Moreover, to prevent any undue CSM increase resulting from retroactive application, the FSS imposed limitations on retroactive adjustments related to other accounting policies and fair value for insurance liabilities, which were firmly established as of Jan. 1 of the preceding year, the designated IFRS 17 transition date. To reinforce transparency, the FSS revealed its plans to enhance disclosure requirements or take other measures for insurance companies undertaking retroactive restatements until the conclusion of this year’s year-end closing.

However, the FSS clarified that any intentional manipulation of financial statements in connection with retroactive restatements will not be subject to these measures. An FSS official said, “The IFRS 17 accounting assumption guidelines are slated for phased implementation, commencing from the financial closing in June. Furthermore, additional guidelines will be distributed as needed through meetings and analytical assessments with accounting firms in the future.”
Amendment Submitted

Korean Gov’t to Strengthen Penalties for Technology Leakage

By Kim Eun-jin

A mid a spate of recent attempts to leak major industrial technologies such as semiconductor and display technologies overseas, the Korean government has proposed a bill to strengthen penalties for technology leakage. While some voiced that the sentencing guidelines of the law should be strengthened by revising the sentencing guidelines for intellectual property crimes such as technology leakage crimes by the Korean Supreme Court’s Sentencing Commission, others said that the scope of technology leakage should not be interpreted too narrowly for the sake of scholarly research.

According to industry sources on July 18, the Ministry of Trade, Industry and Energy (MOTIE) announced a partial amendment to the Act on Prevention and Protection of Leakage of Industrial Technology at the end of June. It plans to submit it to the National Assembly this year after a legislative preview period that includes collecting opinions until Aug. 7.

“The current law punishes acts such as leaking Korea’s core technologies and industrial technologies for the purpose of using them or causing them to be used in foreign countries, but it has been pointed out that difficulties in proving purpose are weakening responses to technology leakage,” a MOTIE spokesperson explained in the legislative preview. “In addition, there is a growing need to prevent brokering jobs for the purpose of technology leakage by punishing those who introduce, broker, and attract technology leaks.”

According to industry sources, the MOTIE has been listening to the opinions of industry insiders and academia and has reflected them in the amendment. In recent years there have been a series of cases of technology leakage in Korea’s major industries such as semiconductors and displays, and as the number of such leaking cases has increased the ministry has taken steps to sanction them in the future, analysts say.

The amendment includes expanding the scope of infringing acts prohibited by the law and increasing the number of the criminal elements of overseas leakage. It stipulates that unauthorized leakage of Korea’s core technology outside a designated place or introducing, arranging, or inducing the leakage of technology is included in infringement acts and changes the criminal component of leakage of Korea’s core technology and industrial technology from a purposeful crime to an intentional crime, so that if a person leaks a technology while knowing that it will be used or might be used in a foreign country, he or she will be subject to punishment.

Meanwhile, the Supreme Court’s Sentencing Commission has begun revising sentencing guidelines for intellectual property crimes. If the sentencing standards on technology leakage crimes are improved, it is expected to increase the level of punishment for related crimes and prevent crimes that could adversely affect Korea’s economic security. Under the current law, leaking Korea’s core technology abroad is punishable by up to three years in prison and a fine of up to 1.5 billion won (US$1.2 million).

In April, the MOTIE delivered an opinion letter to the Supreme Court’s Sentencing Commission requesting that the sentencing standards on industrial technology leakage crimes be strengthened. Recently, economic organizations such as the Federation of Korean Industries also submitted an opinion letter to the Supreme Court’s Sentencing Commission to toughen sentences at the request of companies. “As there is a possibility of joint research with foreign academics and institutions related to Korea’s core and industrial technologies, there will be a side effect of interpreting technology introduction and arrangement as technology leakage only,” an industry official said. ❖
Samsung Electronics, Nvidia, Qualcomm, and TSMC are engaged in a fierce competition to dominate the autonomous driving semiconductor market. Recently, automotive companies such as Hyundai Motor and Tesla have also entered the fray, developing their own autonomous driving chips. The reason for this is the expectation that autonomous driving technology, which is expanding its applications from cars to ships, aircraft, and robots, will enlarge the relevant semiconductor market to over US$29 billion by 2030.

According to a report by global consulting firm McKinsey & Company on July 23, the global market for autonomous driving semiconductors is expected to grow from US$11 billion in 2019 to US$29 billion by 2030.

Mobileye, a startup that originated in Israel and was acquired by Intel in 2017, is often cited as a leading developer of autonomous driving chips. The firm is a pioneer in advanced driver-assistance systems (ADAS) and develops the camera-based autonomous driving chip EyeQ, supplying it to automotive semiconductor companies and first-tier auto parts manufacturers. It plans to launch a LiDAR-based autonomous driving chip from 2025. Furthermore, Ambarella from the United States is known as a fabless company that develops camera-based autonomous driving chips that rival Mobileye.

Domestic companies like Telechips and nextchip are also attempting to enter the autonomous driving chip market.

Global fabless companies like Qualcomm are also actively engaged in the autonomous driving chip business. At CES 2023, the world’s largest IT and electronics exhibition held in January, Qualcomm unveiled the Snapdragon Ride Flex chip. This chip integrates ADAS, infotainment systems, and autonomous driving features. To advance its autonomous driving technology, Qualcomm acquired the Swedish autonomous driving company Veoneer for US$4.5 billion in April last year. It has also been accumulating supply records. In January, Qualcomm announced it would supply autonomous driving chips to Hyundai Mobis and co-develop software.

Nvidia has expanded its business with an “Autonomous Driving Platform” consisting of autonomous driving chips and software. European automakers that are lagging in securing autonomous driving technology and data are known to be particularly keen on adopting Nvidia’s autonomous driving platform.

Nvidia is supplying its Nvidia Drive autonomous driving platform to Mercedes-Benz and Volvo, among others. Next year, it plans to supply to the U.S.-based EV company Lucid, and from 2025, to Jaguar Land Rover as well.

As the competition for developing autonomous driving chips intensifies, foundries, companies that manufacture chips on order, are seeing an increase in work. Samsung Electronics Foundry Business Division plans to provide a dedicated 4-nm process service for autonomous driving chips, following their existing 14-nm, 8-nm, and 5-nm processes. Tesla and Ambarella are considered potential customers for the 4-nm process. TSMC is seriously considering building a foundry in Dresden, Germany, to directly target the automakers there, the end customers of autonomous driving chips.

Battle Commences for Autonomous Driving Chip Market Worth $29 Billion

By Jasmine Choi
US Semiconductor Firms Concerned over Additional Possible Export Controls against China

By Yoon Young-sil

U.S. chipmakers including Intel, Qualcomm, and Nvidia have reacted to U.S. President Joe Biden’s anti-China semiconductor export control policy. They have begun to speak about the news that the Biden administration is preparing additional semiconductor export control measures amid the escalating conflict between the United States and China. This is a change from October of 2022, when the Biden administration introduced the measures. At the time, the U.S. Semiconductor Industry Association (SIA) said that it understood the importance of national security and expressed its willingness to work with the U.S. government.

The SIA represents 99 percent of U.S. semiconductor companies. It issued a statement on July 17 to clarify its position about the news. On the same day, the CEOs of Intel, Qualcomm, Nvidia, and other U.S. companies met with U.S. Secretary of Commerce Gina Raimondo, who is the Biden administration’s director of semiconductor policies, National Security Council (NSC) Director Jake Sullivan, and U.S. Secretary of State Tony Blinken.

The main reason for U.S. semiconductor companies to take collective action at this point is that the U.S.-China conflict shows no signs of being resolved and is expected to escalate within the semiconductor industry in particular.

After the United States introduced measures to control semiconductors with regard to China in October 2022, China retaliated by sanctioning U.S. chipmaker Micron in May and then imposing restrictions on exports of gallium, a rare metal for semiconductors, in June. Blinken and U.S. Treasury Secretary Janet Yellen traveled to China in June and July, but said they would continue to take measures to protect national security, raising the possibility of taking further action.

Then, in late June, the Wall Street Journal (WSJ) and others reported, citing sources, that the Biden administration was preparing additional anti-China semiconductor export control measures, which are expected to be announced in early July. The measures will target Nvidia’s low-end artificial intelligence (AI) semiconductors and cloud computing chips, some analysts forecast. The news of additional measures will come more than 10 months after the semiconductor export control measures against China.

The SIA released a statement regarding potential additional government restrictions on semiconductors on July 17. “Recognizing that strong economic and national security require a strong U.S. semiconductor industry, leaders in
Washington took bold and historic action last year to enact the CHIPS and Science Act to strengthen our industry’s global competitiveness and de-risk supply chains,” the SIA said in the statement. “Allowing the industry to have continued access to the China market, the world’s largest commercial market for commodity semiconductors, is important to avoid undermining the positive impact of this effort. Repeated steps, however, to impose overly broad, ambiguous, and at times unilateral restrictions risk diminishing the U.S. semiconductor industry’s competitiveness, disrupting supply chains, causing significant market uncertainty, and prompting continued escalating retaliation by China.”

The longer the U.S.-China conflict drags on like this, the more it hurts companies’ earnings. For U.S. companies, China is the world’s largest market that cannot be abandoned before national security. SIA’s emphasis in its statement on the importance of allowing the industry to have continued access to the China market is closely connected to the consideration of U.S. semiconductor companies’ profitability, analysts say.

China is the biggest spender in the global semiconductor market. According to foreign media outlets, China’s semiconductor purchases in 2022 totaled US$180 billion, or one-third of global demand. Looking at U.S. companies individually, Intel generated 27 percent of its total sales by selling its chips to China in 2022. Nvidia, which produces AI semiconductors for China, posts more than 20 percent of its annual sales in China, including Hong Kong. Qualcomm, which is the only company allowed to provide Huawei with semiconductors for its smartphones, generates about half of its sales in China.

Intel CEO Pat Gelsinger has focused on the Chinese market, traveling to China twice this year in April and July. “China is one of the largest markets in the world and one of Intel’s most important markets,” he said in Beijing in April. Three months later, in early July, he made a trip to China again, calling China the largest market for Intel’s latest AI semiconductors. Intel is expected to have difficulty in selling its chips in China if U.S. government controls are expanded.

The same goes for Nvidia. Nvidia is not delivering its most advanced AI chips to China as required by the U.S. government. Instead, Nvidia is making low-end AI semiconductors in consideration of the needs of the Chinese market and exporting them to China. If even low-end AI semiconductors are blocked from being shipped to China, Nvidia will suffer. “China is a very important market for the technology industry,” Nvidia CEO Jensen Huang said.

“We have become unable to sell more advanced semiconductor chips to one of our largest markets,” Huang added, expressing his concern that a semiconductor war could be devastating for the U.S. tech industry.

U.S. semiconductor manufacturing equipment companies have also been hit hard by the Biden administration’s control measures against China. China has been the top investor in semiconductor equipment for three consecutive years. China’s semiconductor equipment investment in 2022 reached US$28.3 billion, surpassing Taiwan (US$26.8 billion) and South Korea (US$21.5 billion), according to the Semiconductor Equipment and Materials Institute (SEMI). The figure eclipses the combined investment (US$25.1 billion) of North America, Japan, and Europe. China is still a big buyer in the semiconductor equipment market, although its investment shrank by 5 percent year over year in the wake of the U.S. government’s regulatory actions.

What’s more concerning for U.S. semiconductor companies is that the U.S. government’s restrictions can expand and hold over a long period, helping China set up its own supply chain. While China’s semiconductor equipment technology is still relatively inferior to those of world semiconductor equipment superpowers, the fear is that the Chinese government’s aggressive investment in the technology will drive Chinese semiconductor companies to look for and use Chinese-made equipment.

According to a report by the Korea Institute for International Economic Policy citing SEMI, China’s semiconductor equipment market grew at a compound annual growth rate of 27 percent from 2012 to 2022, and the country’s semiconductor equipment localization rate stood at 35 percent in 2022, up 14 percentage points year on year.

In fact, sales and profits of Chinese semiconductor equipment companies are expected to climb in the first half of this year. Naura Technology which makes semiconductor etching equipment said in a public disclosure on July 15 that it expects its first-half profit to be between 1.67 billion yuan and 1.93 billion yuan, up 121.3 percent to 155.8 percent year on year, according to SCMP. Its sales during the same period are expected to rise 64.4 percent year on year.

Another Chinese semiconductor equipment maker, AMEC, also forecast that it will post a year-on-year increase of 109.5 to 120.2 percent in net profits and a 28 percent increase in sales in the first half of this year. AMEC attributed the strong business performances to market share gains and said its etching equipment continues to be recognized by more domestic and international customers.

Such concerns have already been voiced several times by semiconductor industry leaders. Huang once said that U.S. export controls will force China to develop its own GPUs. “If U.S. tech companies get to have one-third less capacity than before as a result of abandoning the Chinese market, no one will need U.S. factories,” he said.

Peter Bennink, CEO of Dutch semiconductor equipment maker ASML, which has been effectively blocked from exporting its extreme ultraviolet (EUV) and deep ultraviolet (DUV) lithography equipment to China, said that the U.S. control on the export of semiconductor equipment to China is a mistake. “China’s self-sufficiency in semiconductor equipment will take time, but it is a goal that will eventually be attained by China,” he said, emphasizing that the tighter the regulations become, the more efforts China makes.
As Japan has set a national goal of "Semiconductor Leadership Recovery," it is pouring a significant investment into semiconductor company Rapidus. However, Rapidus has recently run into an "emergency to secure profitability." The company set a goal to mass-produce advanced 2-nanometer semiconductor chips by 2027, but despite tens of trillions of won in spending for this purpose, it has failed to secure customers for these 2-nm chips.

According to industry sources on July 31, Rapidus CEO Atsuyoshi Koike recently told Japan’s Nikkei Shimbun in an interview that they are looking for American partners. He revealed that discussions had begun with companies such as Apple, Google, Facebook, Amazon, and Microsoft.

While Japan’s semiconductor manufacturing process technology has stalled at the 4-nm level, Rapidus is on track to begin mass production of 2-nm chips in 2027. Current industry expectations are for Intel to begin mass production of 1.8-nm, or 18-angstrom, chips in the second half of 2024, and Samsung and TSMC are planning to produce 2-nm chips in 2025. Under these circumstances, Rapidus ambitiously threw down the gauntlet for the advanced 2-nm chip market that only a very small number of companies can implement.

However, the substantial costs involved in the development and production of these 2-nm chips are said to be a significant burden on Rapidus. To reduce R&D costs, Rapidus is collaborating extensively with IBM on transistor structure research. However, apart from the development of the 2-nm manufacturing process, Rapidus also needs to construct modern semiconductor manufacturing facilities, which is an issue costing tens of trillions of won. It is projected that it will cost about US$35 billion to start pre-production of 2-nm chips in 2025 and to start mass production in 2027.

The costs exceeding 40 trillion won cannot be covered by Japanese companies’ chip demand and purchase alone. Therefore, Rapidus is reportedly seeking orders from multinational companies like Apple, Google, and Meta. Currently, major IT companies in the U.S. are keen to design their custom chips for artificial intelligence and high-performance computing applications, and Rapidus plans to win their manufacturing orders.

However, Rapidus clearly stated that it does not intend to provide foundry services to a wide range of clients across multiple manufacturing processes like TSMC. It plans to start with about five client companies and gradually expand.

As a result, Samsung Foundry’s “numbers game” is expected to become more complex. While chasing TSMC, it also needs to keep an eye on companies like Rapidus. Intel, which has publicly vowed to be the first to mass-produce advanced chips under 2 nm globally, is also a competitor. An analysis suggests that the fierce competition for securing volume among global semiconductor companies in the 2-nm advanced process, not the old process of 10 nm and above, has already begun.

However, some industry sources say that since only Samsung and TSMC have implemented the 3-nm process, Rapidus’ approach to 2-nm chip clients is not immediately worrying. Samsung began producing chips applying Gate-All-Around (GAA) technology for the first time in the world last June. TSMC has not yet implemented this GAA technology and has decided to start using it in the production of 2-nm chips.

A senior official in the domestic foundry industry predicted, “If Rapidus manages to implement 2-nm technology properly, it will be an emergency for Samsung and TSMC, which have split this market, in securing their clients.” However, since Rapidus has not yet presented any technology related to the advanced process, major IT companies in the U.S. will also be hesitant to become Rapidus’ clients. They continued, “If Samsung continues to develop the 3-nm or lower technology it has implemented, Samsung will be able to defend and maintain its market.”
The standings of Samsung Electronics and SK hynix, which have been leading the global semiconductor market, are wavering amid the “memory cold snap.” Samsung Electronics has been pushed down to the second spot by Intel in the global semiconductor market for the first quarter, and SK hynix, which used to be in the top 3, has disappeared from the top 10 list.

According to market research firm Omdia on June 29, Samsung Electronics’ semiconductor business sales for the first quarter of this year shrank by a whopping 55.7% year-on-year to US$8.929 billion. Intel also recorded US$11.149 billion during the same period, a decrease of 37.5%, but surpassed Samsung to take the top spot in sales.

Samsung Electronics was the world’s top semiconductor sales company on an annual basis last year, but it has given up the top spot to Intel for three consecutive quarters since the third quarter of last year. This is interpreted as the pit of the memory downturn being deeper even in the overall semiconductor market recession. In fact, according to Omdia, first-quarter memory market sales were only US$19.3 billion, only 44% of US$43.6 billion in the same quarter of the previous year.

Due to this, SK hynix and Micron, who were also part of the memory “Big 3” along with Samsung Electronics, have been pushed out of the top 10.

However, fabless companies showed a strong stance. Qualcomm recorded sales of US$7.942 billion, moving up from 4th place last year to 3rd, and Broadcom (US$6.665 billion) jumped three steps from 7th place last year to 4th place on a first-quarter basis. AMD (US$5.299 billion) also rose in rank from 8th to 5th.

Nvidia, the leading company in the Graphics Processing Unit (GPU) industry, achieved sales of US$5.278 billion during the first quarter and ranked 6th, same as last year. However, sales decreased by 18.4% compared to the previous year.

On the contrary, Infineon (US$4.381 billion), a car semiconductor company that came in 7th, increased its sales by 20.5% year-on-year, recording a double-digit growth rate, the only one among the top companies.

Apple, which is expanding its own semiconductor design, also showed improvement. It recorded US$4.291 billion in sales and climbed from 11th place last year to 8th place. Texas Instruments Incorporated (US$4.27 billion), which mainly produces analog semiconductors, and STMicroelectronics (US$4.247 billion) also took advantage of the downturn of memory semiconductor companies and raised their rankings.

The recession in the memory semiconductor market dragged down overall semiconductor market sales. This year’s first-quarter semiconductor market sales were tallied at US$120.5 billion, down 9% from the previous quarter.

Omdia stated, “Semiconductor market sales have decreased for five consecutive quarters,” and “this is the longest downturn since market tracking began in 2002.”
Display companies such as Samsung Display and LG Display are accelerating the development of new technologies, such as OLED on Silicon (OLEDos), to preempt the Extended Reality (XR) industry like Apple’s “Vision Pro.”

According to industry sources on July 31, domestic display companies, including Samsung Display and LG Display, are focusing their R&D efforts on finding ways to increase the production efficiency of OLEDos. OLEDos refers to the deposition of Organic Light Emitting Diodes (OLED) on a silicon wafer substrate used in semiconductor production, which allows for lighter, flexible, and better-quality displays than current OLED TVs.

Expectations for market growth are rising as this display panel was adopted in Apple’s Vision Pro mixed reality (MR) headset launched last month. Previously released AR and VR devices mostly used LCD displays, but with the launch of the Vision Pro, there is an expectation in the industry that demand for OLEDos displays will increase.

The OLEDos in the first-generation Vision Pro was designed by Sony in Japan and produced by TSMC, a Taiwanese foundry company. However, due to complex processes and low yields, it is said to be struggling with the supply of parts.

Considering Apple’s brand power, the industry is highly anticipating Samsung Electronics and LG Electronics entering the market soon. This implies that the demand for OLEDos could increase rapidly, and the display company that first secures mass production technology will have the opportunity to lead the market.

As such, Samsung Display and LG Display are focusing on enhancing their technological capabilities in the field of microOLED. Samsung Display had acquired U.S.-based company eMagin for about 290 billion won (US$227 million) last May.

This company, albeit small, possesses leading technology in the red-green-blue (RGB) method OLED field, enabling it to implement panels with clearer picture quality and lower power compared to existing white OLEDs, hence the explanation from Samsung Display of its high utilization in the field of micro displays.

LG Display, currently supplying the external OLED display for Apple’s Vision Pro, revealed its OLEDos prototype at CES 2023 in Las Vegas in January. It is known that they are currently collaborating with LX Semicon, a fabless semiconductor design company, and SK hynix, which has strength in semiconductor manufacturing, for the production of MicroOLED chips.

Competition between Samsung, LG, and Sony is intensifying over the development of Micro Organic Light Emitting Diodes (OLEDs). The relevant market is forecast to grow rapidly as Apple adopts Micro OLED for the display of its Mixed Reality (MR) headset.

According to the display industry on July 3, Apple is using Micro OLED in its Apple Vision Pro MR headset, which was unveiled on June 5. Stamp-sized Micro OLEDs are fitted into the sections of the headset that align with the user’s eyes. The Micro OLED used in the Vision Pro was developed by Sony.

It is known that the Micro OLED in the headset, which is about 3.3 cm (1 inch) in diagonal length, incorporates over 3,000 pixels. That pixel density is six times that of premium smartphone OLED displays. A distinguishing feature is the immersive experience it offers, feeling as if you’re looking at a 30m wide high-resolution screen.

Micro OLED is often called “OLEDoS,” or OLED on Silicon, as it is manufactured by depositing organic material on a silicon wafer. Sony collaborated with
products in Apple’s next-generation as internal displays alongside Sony’s play’s Micro OLEDs could be adopted that Samsung Display and LG Display is already supplying the external OLED display for Apple year. LG Display is already supplying prototype at the world’s largest IT and consumer electronics show, CES 2023, held in Las Vegas earlier this year. LG Display unveiled a Micro OLED semiconductor company SK hynix. known for its design strengths, and currently collaborating with LX Semicon, known for its design and strengths, and semiconductor company SK hynix. LG Display unveiled a Micro OLED prototype at the world’s largest IT and consumer electronics show, CES 2023, held in Las Vegas earlier this year. LG Display is already supplying the external OLED display for Apple Vision Pro. Industry insiders speculate that Samsung Display and LG Display’s Micro OLEDs could be adopted as internal displays alongside Sony’s products in Apple’s next-generation devices.

Faster than LCDs
China Narrows Its Gap with Korea in OLED Production Capacity

By Yoon Young-sil

China is in hot pursuit of Korea in the global organic light-emitting diode (OLED) display market. While Korea is still far ahead of China in terms of market share, China has caught up with Korea in terms of production capacity by 10-plus percentage points.

China’s OLED display production capacity is 43.7 percent, while that of Korea 54.9 percent, global market research firm TrendForce said in a report on July 25.

China’s OLED display production capacity was less than 10 percent only five years ago. Today, it is more than 40 percent, only a 10 percentage point gap with Korea.

In the small and medium-sized OLED display market, Samsung Display, which once held a market share of more than 80 percent, fell to 54.7 percent in the first quarter of this year, according to market research firm Omdia.

Meanwhile, China’s BOE, which had fiercely competed with LG Display for second place, jumped into second place with a 19.2 percent share in the first quarter, beating out LG Display with a 17.4 percent share.

Korea had claimed the top spot in the global display market for 17 years since 2004 but was overtaken by the government-backed Chinese display industry in 2021. However, there is still a large gap in the OLED display market, with an 81.3 percent share held by Korea and 17.9 percent by China.

In the global liquid crystal display (LCD) market, China’s dominance is becoming more solid. In 2022, China’s LCD market share stood at 55.5 percent, Taiwan’s 27.6 percent, Korea’s 13.5 percent, and Japan’s 2.9 percent. China was the only country to increase its market share.

Display Industry insiders are concerned that China has expanded its share of the OLED display market faster than it did that of the LCD market in the past.

According to the Korea Display Industry Association, it took China 10 years to reach a 20 percent share of the global market in small and medium-sized LCDs but eight years to reach 20 percent in small and medium-sized OLED displays. To leave China’s pursuit out in the OLED display market, Korean companies are pulling out all the stops by investing heavily in OLED displays among others.

In April, Samsung Display announced that it will invest a total of 4.1 trillion won by 2026 to build the world’s first 8.6-generation IT OLED display production facility in Asan, South Chungcheong Province. Its intention is to significantly widen its gap with Chinese competitors in OLED display technology.

Meanwhile, the OLED display market continues to grow. According to Omdia, demand for OLED displays is expected to grow by 11.0 percent annually on average from 2022 to 2030.

TrendForce forecast that the share of smartphones with OLED panels will exceed 50 percent this year, up from 42 percent in 2022, and then cross 60 percent in 2026.
The smartphone usage rate among Koreans has reached 97 percent according to a recent survey.

Korea Gallup announced on July 18 that it asked 1,001 people aged 18 or older nationwide whether they used a smartphone from July 11-13. Ninety-seven percent said they did.

According to the poll, 69 percent of the 975 smartphone users who said that they used smartphones said that they used Samsung smartphones, 23 percent Apple, 6 percent LG, and 0.4 percent other brands. Two percent did not know the brand of their current smartphone or did not answer the question. Samsung and Apple each increased by 3 percentage points from last year, while LG decreased by 4 percentage points.

By age, Apple dominated among those in their 20s, Apple and Samsung were neck and neck among those in their 30s, and Samsung dominated among those over 40, in the mid-80-percent range. Apple was more popular among younger people (65 percent in their 20s, 1 percent in their 70s and older), while LG is more popular among older people (less than 10 percent in their 60s and under and 21 percent in their 70s and older).

Both Samsung and Apple reached new highs this year since Gallup Korea began to survey people about their smartphones. Samsung grew from 59 percent in 2012, 11 years ago, to 69 percent in 2023, and Apple from 13 percent to 23 percent over the same period. This change suggests that Samsung led the charge in popularizing foldable phones with its recent Galaxy Z Flip and Galaxy Z Fold and absorbed former LG smartphone users.

Among the 975 smartphone users in the survey, 65 percent chose Samsung as their next brand, while 22 percent chose Apple. Two percent chose others and 11 percent were undecided yet.

Observing future brand choices by age, Samsung was dominant among those over 40 (34 percent in their 20s, 53 percent in their 30s, and 80 percent in their 50s and 60s), while Apple is dominant among the younger age groups (59 percent in their 20s, 41 percent in their 30s, 20 percent in their 40s and 2 percent in their 70s or older).

Nine in ten current Samsung and Apple smartphone users said they will go for the same brand next time. 

Korea Phone Trends

Apple Smartphones Popular among 20-somethings While 40+ Prefer Samsung

By Yoon Young-sil
Samsung Electronics has decided not to collect Samsung Pay fees from credit card companies. While Apple has begun collecting fees for Apple Pay, Samsung Electronics had also considered imposing charges. However, to alleviate the burden on credit card companies struggling with deteriorating profitability, it decided to maintain a system that does not impose fees.

Samsung Electronics announced on July 19 that it had decided to continue offering Samsung Pay without fees and plans to renew contracts with domestic credit card companies.

Until now, credit card companies had not paid separate fees through group contracts with Samsung Pay. They only paid a portion of the royalties for using Samsung Pay, a Magnetic Secure Transmission (MST) payment method, in applications and other platforms. Also, the contracts were automatically renewed each year as there were no changes to the terms.

However, with the introduction of Apple Pay in South Korea at the end of March, the situation changed, and Samsung Electronics also began to reconsider their setup. Apple Pay started charging Hyundai Card a usage fee of 0.15% per transaction, marking the era of pay monetization. The fee Hyundai Card pays to Apple is the highest among countries that have introduced Apple Pay, about five times higher than in China.

In response to this atmosphere, there were expectations that the Samsung Pay contract between Samsung Electronics and the credit card companies, which was based on free usage, could also change. Samsung Electronics also considered monetizing the fees.

In the credit card industry, difficulties have been expressed about Samsung Pay fees, especially as credit card interest rates are soaring and fund procurement is becoming difficult.

Considering last year’s card approval amount reached 1,100 trillion won (US$870.3 billion) and the number of Samsung Pay subscribers is about 20 million, about 39% of the total population, if a fee of 0.15% similar to Apple Pay is imposed, credit card companies would have to bear an annual burden of 640 billion won. There were concerns in some quarters that if Samsung Pay also began to charge fees, credit card companies might reduce customer benefits or limits to maintain profitability.
Not Working Properly
Carbon Credit Prices Plummet in Korea despite Tougher Greenhouse Gas Emission Regulations
By Kim Eun-jin

It has been pointed out that the prices of carbon credits that companies with excessive greenhouse gas emissions must purchase have dropped significantly, making the system less effective. In other countries, such as the European Union (EU), their prices are on the uptick due to the strengthening of environmental regulations; only Korea is bucking the trend.

Yoon Yeo-chang, a research fellow at the Korea Development Institute (KDI), said in a report on how to improve the market function of the emission trading scheme published on July 18, “Korea’s greenhouse gas reduction targets have been significantly strengthened, but the prices of carbon credits have hit the skids. If the price mechanism does not work smoothly, it may hinder the efficient achievement of reduction targets through the market.”

The emissions trading system, introduced and implemented in Korea in 2015, is a system in which the Korean government sets the total amount of greenhouse gas emissions and issues emission permits, and companies must purchase emission permits in the market and submit them to the Korean government. Companies that emit more greenhouse gases than their paid or free allocation through auctions must purchase and submit credits for their excess emissions. Failure to do so will result in fines and penalties.

However, the prices of domestic carbon credits have been plummeting since 2020. This contrasts with those in the European Union and New Zealand, where such prices have more than doubled or tripled as companies seek to comply with tighter emissions regulations and greenhouse gas reduction targets are revised upward globally. In Korea, the price of carbon credits for one ton of emissions in December last year was US$11.84, down 66.6 percent from US$35.43 in December 2019. In contrast, their prices in the European Union surged 238.8 percent, from US$26.97 to US$91.38, during the same period.

“If the prices of carbon credits remain low, companies will choose to purchase carbon credits rather than invest in GHG reduction facilities or technologies,” Yoon said. “The fact that the prices of carbon credits are declining when GHG reduction targets have been raised to a high level indicates that the price function of the cap-and-trade system is not working properly.”

Yoon blamed the decline in domestic emissions prices on the Carryforward Restriction System. To prevent companies from hoarding emission allowances, the system limits the amount of carbon credits that can be carried over from one year to the next, with companies allowed to carry over up to twice the amount of net sales of carbon credits this year and the amount next year. The regulation lowers companies’ demand to buy carbon credits and increases the amount of carbon credits sold in the year, driving down the prices of carbon credits.

Favored Industries, Favored Areas
Korea Designates 7 Specialized Complexes for Advanced Strategic Industries
By Jung Min-hee

The government has designated seven specialized complexes for the nation’s advanced strategic industries such as semiconductors, secondary batteries, and displays. In addition to this, five specialized complexes for materials, parts and equipment have also been newly designated to focus on five other sectors, including future cars and biotechnology.

The Ministry of Trade, Industry, and Energy has revealed its plans on July 20 to develop Yongin and Pyeongtaek into the world’s largest semiconductor cluster, focusing on memory and system semiconductors. Gumi will play a significant role as a semiconductor materials hub, while Cheongju, Pohang, Saemangeum, and Ulsan are identified as strategic locations for secondary batteries and Cheonan and Asan for next-generation displays.

Furthermore, the ministry will also establish specialized complexes for materials, parts, and equipment in five other regions. Gwangju will be designated for future cars and autonomous vehicle components, Daegu for future cars and electric motor technologies, Chungbuk Osong for biotechnology and raw materials for biopharmaceuticals, Busan for semiconductors and power semiconductors, and Gyeonggi Anseong for semicon-
The future of microLED, which is considered to be a “dream display,” appears promising as the once formidable barrier of high costs is expected to rapidly diminish in the coming years, inching the technology closer to widespread adoption. While domestic companies actively pursue the development of small and large microLED panels, the mid-sized market, with a wider range of applications in premium cars and other areas, might be vulnerable to competition from Taiwanese companies trying to seize it.

According to a recent report by research firm Omdia on July 30, the cost of 10 to 14-inch microLED display panels is projected to plummet to a mere one-fourth of its current level by 2027. The price range for mid-sized microLED panels, spanning from 10.1 to 14.6 inches, currently stands between US$5,800 and US$10,000 per unit. Furthermore, Omdia has presented price estimates for different mid-sized microLED panels. According to their projections, a 10.1-inch panel is anticipated to cost around US$5,800 (7.41 million won), while a 12.1-inch panel might be priced at US$8,000 and a 14.6-inch panel could reach around US$10,000. These price points are remarkably high, especially for mid-sized display panels used in devices like laptops and tablet PCs.

However, with the surging demand for premium displays, manufacturers are expected to escalate their investments in production, leading to further cost reductions. Omdia forecasts that the prices could drop to US$1,277 for 10.1-inch, US$1,800 for 12.1-inch, and US$2,400 for 14.6-inch panels by 2027. While still relatively higher than organic light-emitting diode (OLED) displays, such price adjustments are likely to stimulate demand in niche applications, including in-vehicle infotainment systems in luxury cars and high-performance laptops.

MicroLED, similar to OLED, is a self-emissive display technology featuring an array of micro-sized LEDS precisely arranged to achieve ultra-high-resolution and image quality. It is highly regarded as the most ideal display due to its lack of burn-in issues, a common drawback of the representative self-emitting display technology OLED. However, challenges remain in terms of miniaturization and high cost.

In spite of being priced in the “hundreds of millions” range, large-sized displays continue to witness a surge in demand, particularly in the premium TV market, while small-sized displays find extensive use in applications such as Extended Reality (XR) and Augmented Reality (AR) devices. In contrast, mid-sized displays have not yet achieved commercialization, with no products readily available in the market. For the same reason, domestic companies like Samsung Display, despite its proactive involvement in microLED development, have shown reluctance in pursuing mid-sized display development. Taiwanese companies have been quick to seize opportunities in the microLED market, taking advantage of the “gap” left by the Korean display industry. Industry insiders assess that Taiwan-based companies, including Innolux -- one of the top five TV panel manufactures in the world -- AU Optronics, and Netronix have secured leading development capabilities in this market.

An industry expert said, “Taiwanese companies, which lack OLED technology expertise, are putting in considerable effort to generate new market opportunities and devise strategies to address the premium market segment. If they can address the issue of high prices, it could potentially open up new avenues in the market.”
In the first half of this year, Korea’s automobile exports surged 46.6 percent year on year to US$35.7 billion, a record high. Including auto parts, the figure reached US$47.3 billion.

According to the Ministry of Trade, Industry and Energy (MOTIE) on July 17, Korean automakers exported more than 241,900 general cars in June, earning US$6.23 billion in exports, while their eco-friendly cars exports reached more than 68,100 units worth US$2.21 billion. Korea’s total car export amount from January to June stood at US$47.3 billion, giving the green light to the Korean government’s goal of achieving US$80 billion in automotive exports this year.

In particular, exports of eco-friendly vehicles (electric, plug-in hybrid, hybrid, hydrogen cars) reached US$12.4 billion in the first half of this year, up 70.4 percent year on year. The number of Korea’s exported eco-friendly vehicles stood at 384,600, or one out of every four exported Korean vehicles. Of these, electric vehicles totaled 182,000 units, accounting for about half (47.4 percent) of eco-friendly vehicle exports.

In the first half of this year, Korea’s auto production increased by 23.5 percent year on year to 2,197,600 units as the supply of parts such as automotive semiconductors normalized. It was the first time in four years since 2019 that production has recovered to 2 million units.

In detail, Korea produced a total of 2,197 million units and exported 1,431 million of them in the first half. This represented a 23.5 percent increase in production and a 32.6 percent increase in exports compared to the first half of last year. Of the US$35.674 billion in automobile exports, eco-friendly vehicles accounted for US$1.246 million.

By region, Korea’s car exports to North America reached US$444 million in June, up 20.4 percent year on year, while Korean car sales in the EU (US$261 million, up 31.4 percent) and the rest of Europe (US$358 million, up 22.8 percent) increased significantly. On the other hand, Korea’s car exports to Asia stood at US$39 million, down slightly by 2.8 percent year on year.

In June, Korean auto parts exports showed globally balanced growth with US$721 million in exports to North America (down 3.6 percent year on year), US$369 million in exports to EU (up 23.1 percent), US$473 million in exports to Asia (up 5.5 percent), US$251 million in exports to Latin America (up 3.9 percent), US$84 million in exports to the rest of Europe (up 40.7 percent), US$74 million in exports to the Middle East (up 1.0 percent), US$14 million in exports to Oceania (up 47.2 percent), and US$6 million in exports to Africa (up 27.4 percent).

Meanwhile, car sales in the domestic market increased 10.7 percent year on year to 893,700 units in the first half of this year due to the base effect of the automotive semiconductor crisis in 2022. Of these, sales of domestically produced vehicles increased by 8.7 percent to 759,300 units, while sales of imported vehicles dropped by 3.1 percent year on year to 134,400 units.

Sales of eco-friendly vehicles in the Korean market totaled 264,200 units in the first half of this year, accounting for three out of every 10 new vehicles sold. Of these, hybrid models accounted for the largest share (66.9 percent) of the Korean eco-friendly car market with 176,990 units.

Cars sit in a parking lot before being placed on a ship and exported overseas.

**Eco-friendly Domination**

**Korea’s Auto Exports Hit Record High of US$35.7 Billion in H1**

By Kim Eun-jin

The global automotive industry is on the rise, with eco-friendly vehicles leading the way. In the first half of this year, Korea’s automobile exports surged 46.6 percent year on year to US$35.7 billion, a record high. Including auto parts, the figure reached US$47.3 billion.

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**Globally Targeted Products Popular**

**Chevrolet Trax Crossover, Trailblazer 1st, 2nd in Korea’s Passenger Car Exports in June**

By Jung Suk-ye

The Trax Crossover and Trailblazer from Chevrolet were first and second respectively among Korea’s vehicle exports in June.

According to "Automotive Industry Trends in June 2023" released on July 28 by the Korea Automobile & Mobility Association (KAMA), the Trax Crossover sold 24,359 units overseas in June, ranking first in exports. The Trailblazer ranked first in exports five months in a row from February, taking second place on sales of 20,475 units. The two vehicles were the only models that posted overseas sales of more than 20,000 units in June.

Both models also had remarkable achievements globally in the first half as a whole. The Trailblazer sold 123,160 units overseas and ranked first. The Trax Crossover ranked sixth, selling 73,000 units overseas only four months after its release.

While targeting the global market, the two models had total sales of nearly 200,000 units in the first half thanks to their excellent marketability and ability to meet stringent quality requirements in individual countries worldwide. In the
competitive small SUV market, the Chevrolet Trax entry crossover model combines the advantages of a sedan and SUV. It complements the Trailblazer 
premium compact SUV in Chevrolet's portfolio.

Both models have a strong presence in the Korean market as well. The Trax Crossover achieved the brand's highest sales of 13,000 units only seven business days after pre-contracts began. Responding to explosive customer demand, the Trax ranked second in domestic compact SUV sales in May and June.

Chevrolet launched The New Trailblazer, a facelifted model with significantly enhanced marketability, on June 19. The authentic American premium compact SUV has two large displays, a completely updated interior and exterior design, switchable all-wheel drive, a panoramic sunroof, wireless phone projection, active noise cancellation (ANC), and other premium options that are rarely found in competitors’ products in the same class.

"The Trax Crossover and Trailblazer were created leveraging the outstanding global engineering capability and manufacturing quality of General Motors, and have been recognized in Korea and around the world for their competitiveness," said GM’s Korean Operations Vice President of Vehicle Sales and Service Gustavo Colossi. "GM’s operations in Korea will continue to actively respond to the strong global demand for the two models as part of our focus on sustainable growth as we expand our multi-brand strategy."

The Buick EncoreGX, the Trailblazer's sibling that shares the same powetrain and platform, topped the small SUV category for the second consecutive year in the Initial Quality Study (IQS) issued in June by a prestigious market research institute in the U.S. it is the latest award recognizing the excellence of GM’s Global Manufacturing System and its customer-first value.

With its focus on flawless production quality, GM’s Korean Operations plan to increase annual production to 500,000 units to respond to robust global demand.

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**Unprecedented Korea-US Difference**

**No Massive Capital Outflow from Korean Foreign Exchange Market despite Interest Rate Differential**

By Jung Suk-yee

The difference in interest rates between Korea and the United States, which has reached 2 percentage points for the first time in history, is expected to continue for quite some time. However, the Korean foreign exchange market has been calm, starting at a low point in early trading despite concerns over increased volatility.

The U.S. Federal Reserve's baby step (an 0.25 percentage point increase in the key interest rate) on July 26 (local time) widened the divergence between Korea (3.50 percent) and the United States (5.25 to 5.50 percent) to 1.75 to 2.00 percentage points on July 26. This marked the first time the Korean foreign exchange market saw a 2 percentage point inversion based on the top end.

As a non-key currency country, Korea is bound to be burdened by the widening interest rate divergence with the United States. This is because it is difficult to rule out the possibility that foreign funds in the Korean stock and bond markets will leave in search of higher interest rates, forcing the Korean won to depreciate. Another concern is the current level of tightening in the United States, which is likely to continue throughout the second half of this year.

However, the Korean foreign exchange market seemed unaffected. In the morning of that day, the won-dollar exchange rate began at 1271.1 won, down 3.4 won, on the Seoul foreign exchange market, hovering in the 1,260 won range in early trading. The Korean government, the BOK, and financial authorities are banking on the prospect of no massive foreign capital outflow crisis despite heightened uncertainties in financial markets.

"Despite the prospect of widening interest rate differentials at home and abroad, the exchange rate has remained stable and the Korean foreign capital market is in good shape," Choo Kyung-ho, Korean deputy prime minister and minister of planning and finance, said in an emergency macroeconomic and financial meeting he chaired in Seoul on July 27. Foreign investment funds have seen net inflows of more than 22 trillion won so far this year, and inflows climbed in May and June after the interest rate differential between Korea and the U.S. reached 1.75 percentage points.

However, the BOK’s woes are likely to grow as Powell left open the possibility of another rate hike in September. If the divergence between Korean and U.S. interest rates becomes wider and prolonged, the BOK will have no choice but to seriously consider resuming its tightening program. The BOK will monitor foreign capital flows and foreign exchange market volatility to decide whether or not to raise the benchmark rate further on Aug. 24.
European Battery Industry Highly Values Korea as Key Partner

By Kim Eun-jin

With regard to batteries, the mood is changing in Europe, which has been pushing for battery self-sufficiency to lower its dependence on Korea for batteries. With the proliferation of startup battery companies in Europe, demand for battery materials is expected to surge there. Faced with technological limitations while trying to surpass Korea, Europe is eyeing Korean battery material, component, and equipment companies.

According to industry sources and KOTRA on July 4, more than 20 battery projects are being promoted in Germany, Europe’s No. 1 manufacturing powerhouse. Except for Tesla in the United States and CATL, Farasys and SVOLT in China, most of them are startup battery companies in Germany and other European countries. They range from the Automotive Cell Company (ACC) which received investment from French-German capital including Stellantis, Schaeffler, and Benz to BMW and Volkswagen (Germany), Northvolt (Sweden), and Blackstone (Switzerland). If all goes well according to the plan, Europe will have up to 500 GWh of production capacity by 2026.

The EU set up a self-sufficiency strategy aims to reduce its reliance on East Asian batteries. The charge was led by Germany, France, Sweden, Poland, Finland, Belgium, and Italy, all of which have global automotive brands. Germany contributed the most with 1.25 billion euros (US$1.36 billion), followed by France and Italy with 960 million and 570 million euros, respectively. The EU also spent 3.2 billion euros. At the time, Korea virtually dominated the European EV battery market, so the strategy virtually aimed to exclude Korean batteries, analysts say.

New battery companies will mushroom not only in Eastern Europe, on which LG Energy Solutions (Poland) and Samsung SDI-SKON (Hungary) are focusing, but in Western Europe too, where land prices and labor costs are high. Big battery plants are expected to be built in major countries from 2026 through 2028, including Norway (125 GWh) where Freyr and Morrow are located, France (130 GWh) where the nation’s first battery plant of 40 GWh went live, and Italy (80 GWh) where one of Stellantis’ five global factories is located. Although they are still just planned capacities, they eclipse the EU’s previous forecast of 968 GWh in 2030.

Startup battery companies in Europe began the operation of their battery plants or are close to breaking ground for them. But battery materials, components and equipment are causing them headaches. They need to build unprecedented battery value chains as internal combustion engine-centric automotive factories change into those for electric vehicles. They have been focusing on investing in the battery cell business directly related to electric vehicle factories so they are struggling to secure battery materials, components and equipment. “In the battery industry, developing technology is a big challenge but the battery industry has low barriers to entry at the basic level,” explained an official of a Korean battery material company. “On the other hand, hurdles are high at the battery material market even in the entry stage and the market is not easy to enter.”

These startup battery companies in Europe are therefore paying a lot of attention to Korea. Even though Chinese battery companies’ localization strategy has significantly increased the export volume of Chinese battery makers to Europe, they are applying themselves to promoting cooperation with Korean companies. This is because Korean companies of the four core battery materials (anode materials, cathode materials, separators, and electrolytes) have bases in Europe or are preparing to do so, making it easier for them to respond if the EU decides to require them to use materials produced in Europe after the Core Raw Materials Act (CRMA) goes into effect.

LG Chem, POSCO Future M, EcoPro, and SKIET are engaging in business in Europe or preparing to do so. Apart from the four core materials, SK Nexilis and Lotte Materials are expanding copper foil production facilities, and Sungil High Tech is running a waste battery business in Europe. Experts say that Korean companies of major battery materials other than the above-mentioned items will also accelerate their entry into Europe.

Korean battery parts and equipment companies are zeroing in on exports rather than localization. Most of the facilities for battery production processes are set up by small and medium-sized enterprises. Most of the European battery makers are promoting the introduction of smart factories, which will give Korean battery equipment companies benefits. One good example is SFA, a Korean company.
that produces battery test equipment that shortens the inspection time to four seconds per cell compared to around seven minutes for their Chinese competitors. Another is Shinsung E&G with a technology that maintains a certain level of moisture inside a battery factory as batteries are vulnerable to it. In addition to these companies, TSI, Shinjin Mtec, and Cowin Tech are ramping up their collaboration with Europe.

Freyr in Norway was founded in 2019. It is building a factory in Moi Rana, Norway, and working on a battery project in Vassa, Finland. Tom Einar Jensen, CEO of Freyr, said, “Korea has high technological power not only in battery cells but also in battery materials, components, and equipment. Collaboration with Korean value chain companies holds the key to the evolution of the European battery industry.”

“It is bootless to compare European companies that are just starting to toddle with Korea, which is an advanced battery powerhouse,” Fraunhofer’s Dr. Jonas Henschel told local media outlets during the Smarter E Europe, Europe’s largest energy exhibition, which ran in Munich, Germany, from July 14-16 (local time). “We expect that the electrification process will create a market and complete Europe’s unique EV-battery value chain, and Korean battery makers with a presence in Europe will play an important role.” Fraunhofer is a federally funded German research institute and one of Europe’s largest applied research organizations.

“I think that the battery industry requires much more advanced technology than the traditional manufacturing industry,” Henschel added. “While China is emerging strongly through a price war, Korea and Japan are gradually scaling up production based on advanced technology. Korea has secured a unique position to differentiate itself from China and Japan by being competitive in both battery technology and volume production. Based on this fact, Korea has built large-scale production lines in Hungary and Poland, so it will be able to play a key role in Europe’s electrification process.”

Global battery companies are closely watching Europe’s growing energy storage system (ESS) market. As demand for renewable energy generation has surged due to the Russia-Ukraine war, demand for ESSs to store electric power has also grown considerably.

Korean companies such as LG Energy Solution have launched new products to target the European residential ESS market. Chinese battery makers have been blocked from entering the United States by the Inflation Reduction Act (IRA), so they are turning their eyes to Europe, intensifying competition between China and Korea for market leadership.

On July 3 (local time), Chinese power equipment maker Sungrow announced that it signed a contract to supply equipment for a 100-megawatt (MW) energy storage project in Hampshire, England. The company produces solar inverters and ESSs.

Demand for renewable energy generation is on the rise in Europe. In particular, demand for residential solar power has begun to surge after the Russia-Ukraine war disrupted natural gas supply. According to SolarPower Europe, the European Union’s solar power association, the number of residential ESS installations in Europe jumped from 650,000 in 2021 to one million last year. That figure is expected to reach 3.5 million in 2026.

Chinese battery companies are gaining ground quickly. At the European Smart Energy Expo in Munich, Germany in June, EVE Energy unveiled a new lithium iron phosphate (LFP) ESS capable of up to 12,000 times of charging and discharging. The company also signed supply contracts totaling 23 gigawatt hours (GWh) with the world’s third-largest ESS company Powin, among others.

The ESS market was previously dominated by Korean companies. Samsung SDI and LG Energy Solution had a combined global market share of 55 percent in 2020. However, that share dropped to 14.8 percent in 2022. This was due to a series of ESS fire incidents that dampened investment in the Korean ESS market. Chinese companies such as CATL, EVE, and BYD took advantage of this opportunity. Like batteries for electric vehicles, the ESS market is also characterized by strong domestic demand and Chinese companies are using a strategy to rapidly increase their shares through a price war.

The Korean ESS industry is also gearing up to regain its lost share of the ESS market. At Intersolar Europe 2023 in Germany in June, LG Energy Solution introduced “Enblock,” a new brand of its residential ESSs with LFP battery packs. The compact cabinet-style product is characterized by easy installation in small spaces indoors and outdoors. The modules can increase to five (15.5 kWh) by inserting ESS battery packs. Samsung SDI took the wraps off the Samsung Battery Box at the same event. It is a box-shaped ESS with battery cells and modules inside so that it can be used as soon as it is connected to a power grid.
Three-way Struggle
Korea, China, Japan Heat up Race for Battery Patents

By Kim Eun-jin

A s the battery technology development cycle gets shorter and shorter, China heats up the race to secure patents, ratcheting up tension in the battery industry.

China’s CATL, the world’s No. 1 battery maker by market share, recently registered a patent on a battery technology in just 39 days according to industry sources on July 19.

The Chinese government set up a patent examination cooperation center in Fujian Province, where CATL has its headquarters and factory, to provide fast-track reviews of patents filed by CATL. The total number of reviewers soared from 4,402 in 2011 to about 16,000 in 2022. This is about 17 times the number of reviewers at the Korean Intellectual Property Office (953).

China has been focused on battery patent applications as Korean companies have outpaced China in terms of patent competitiveness. When KIPO analyzed trends in battery patents filed in two or more countries over the 10-year period from 2011 to 2020, LG Energy Solution was the world leader with 15,318. Samsung SDI came in second with 8,157. In fourth place was Japan’s Panasonic (6,104), a key battery supplier for Tesla in the United States. CATL ranked seventh in patent applications (2,397), despite having the world’s largest market share, lagging behind its Korean and Japanese competitors.

LG Energy Solution is leading the way in both the quantity and quality of patents. Like academic papers, patents are measured for quality through the number of citations, and competitiveness is mainly measured as compared to U.S. patents. LG Energy Solution was analyzed to have relatively good patents in electrode materials, cell processes, and packaging. Samsung SDI excelled in the areas of packaging and stabilization.

While Korean companies have been working to secure patents for nickel-cobalt-manganese (NCM) cathode materials used in high-capacity batteries, China has been focusing on applying for the registration of patents for lithium-phosphate-iron (LFP) cathode materials, which are low priced but highly stable. Patent applications for silicon anode materials, which improve battery performance over traditional graphite cathodes, also increased in China.

Japan commercialized lithium-ion batteries ahead of Korea and China, but its market share is dwarfed by those of the other two countries, so it is desperate to change the game by commercializing all-solid-state batteries that dramatically improve battery reliability. In June, Toyota announced plans to commercialize an electric vehicle powered by an all-solid-state battery by 2027.

As the application war intensifies between Korea, China, and Japan, which together control more than 90 percent of the global battery market, and the battle lines are expanding to include the United States and Europe, it is important to secure patent rights by filing patents overseas. Especially in the field of materials, Japan has been actively applying for patent registrations overseas. Over the past 10 years, the proportion of overseas patent applications by the six major Japanese materials companies reached 62 percent of their total applications. In contrast, the share of overseas applications by the seven major Korean companies was only 33 percent.

Korean battery industry insiders continue to call for faster domestic reviews to expedite overseas patent registrations. If a company applies for the same patent in multiple countries, and the patent is registered in Korea first, it can benefit from a patent highway system, which allows for priority reviews in other countries.

However, the domestic review situation has a bottleneck. The annual number of reviews per reviewer at KIPO is 197, which is two to three times that of Europe (59), the United States (69), or China (91). In particular, the number of reviews in the battery field more than doubled from 3,520 in 2018 to 7,240 in 2022. In response to the Korean battery industry’s growing sense of crisis, KIPO is considering designating batteries as a priority area of review. In November last year, KIPO designated semiconductors as a priority area of review and launched the 167-member Semiconductor-specialized Patent Review Bureau.

As the applications of battery technology continue to expand, securing patents is expected to grow in importance as well. “Lithium batteries were first used in small electronic devices such as camcorders and laptops in Japan but their application has greatly expanded thanks to electric vehicles,” said Kim Dong-wook, a senior researcher at the Korea Research Institute of Chemical Technology (KRICT). “As the number of applications increases, technological advancements and patent applications should be made accordingly.” Industry experts expect battery technology to be used in airplanes, trains, and ships in the future.
The era of methanol ships has officially begun with the voyage of the world’s first methanol propulsion ship, built by a Korean shipbuilder. Following HD Korea Shipbuilding & Offshore Engineering, which leads in technology having secured the most methanol ship orders globally, Samsung Heavy Industries has also recently succeeded in ordering methanol propulsion container ships, intensifying the competition among the three major Korean shipbuilders following liquefied natural gas (LNG) ships.

According to the industry on July 23, the world’s first methanol propulsion ship built by Hyundai Mipo Dockyard began its first voyage on July 17 after completing its bunkering operation. The ship was ordered by Maersk, the world’s largest shipping company, in 2021. The ship departing from Ulsan Port is expected to arrive in Copenhagen, Denmark in September for a naming ceremony.

Hyundai Motor and Kia, along with GM and seven other major automakers, announced in a joint press release that they had agreed to establish an EV charging network in the North American region.

Hyundai Motor and Kia, among others, plan to install at least 30,000 high-powered charging stations in cities and highways to ensure customers can charge their vehicles whenever and wherever necessary.

The charging stations will be designed to accommodate all EV customers by providing both the existing US standard CCS and Tesla’s charging standard NACS connectors.

The Wall Street Journal reported that these seven companies will invest at least US$1 billion, or 1.27 trillion won in Korean currency, into the joint venture to build the EV charging network.

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Intense Competition Among the Big Three Korean Shipbuilders

Maersk plans to replace 25% of sea transport freight with eco-friendly fuel ships by 2030 and has so far ordered a total of 25 methanol ships. The world’s third largest shipping company, France’s CMA CGM, has ordered 18 methanol-powered ships, while Korea’s HMM has ordered 9.

Methanol is receiving attention as an eco-friendly fuel because it emits less greenhouse gases than existing bunker C oil. Sulfur oxide (SOx) emissions are virtually non-existent and nitrogen oxide (NOx) emissions can be reduced by up to 80%. Particularly, “green methanol,” produced by renewable energy, rapidly biodegrades when discharged into the sea, causing no marine pollution.

In response, the competition to order methanol ships in the Korean shipbuilding industry has become even more fierce.

HD Korea Shipbuilding & Offshore Engineering is leading by securing more than half of the global methanol ship orders. The key to methanol ships is engine technology. HD Korea Shipbuilding & Offshore Engineering started research in 2020 and developed a methanol dual-fuel HiMSEN engine in January this year, completing the factory operation test. It has received a total of 19 orders this year.

Samsung Heavy Industries also intensified the competition by securing a large order for methanol ships for the first time this month. The quantity ordered from Taiwan’s Evergreen Marine is 16 vessels, with the contract amount reaching approximately 4 trillion won (US$3.1 billion), the largest ever for a single ship contract. Hanwha Ocean has not yet secured an order for a methanol ship, but its methanol ship technology is complete enough to start shipbuilding immediately.

United States Infrastructure

Hyundai-Kia, GM, Mercedes-Benz, Others Form Joint Venture to Build EV Charging Network

By Jasmine Choi

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Methanol Ship Era

Intense Competition Among the Big Three Korean Shipbuilders

By Jung Min-hee

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Currently, the global shipping industry is speeding up the order of methanol ships to preempt the eco-friendly ship market. Maersk plans to replace 25% of sea transport freight with eco-friendly fuel ships by 2030 and has so far ordered a total of 25 methanol ships. The world’s third largest shipping company, France’s CMA CGM, has ordered 18 methanol-powered ships, while Korea’s HMM has ordered 9.

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Korean oil refiners’ refining margins averaged US$4 per barrel in the second quarter of this year. That represented a drop of more than half from the previous quarter and a drop of more than 80 percent from the same period last year. Their second-quarter operating profits are also expected to shrink by more than 96 percent year over year.

The average Singapore composite refining margin from April to June this year was US$4 per barrel, according to sources in the Korean refining industry on July 16. Given that oil refiners typically break even at US$4, this means they made nearly no profit. Compared to the same period of 2022, it was a decrease of 81.4 percent. At that time, refining margins were US$21.51 per barrel.

Last year’s high refining margins were due to a combination of an increased desire to travel with the end of the COVID-19 pandemic and a ban on Russian crude imports due to the war in Ukraine. In short, the supply of petroleum products decreased and demand increased, resulting in a sharp increase in refining margins.

As a result, operating profits of Korea’s four major refiners (SK Energy, GS Caltex, S-OIL, and HD Hyundai Oilbank) are expected to plummet in the second quarter. Financial information firm FnGuide and securities firms forecast that SK energy will post an operating loss of 305.8 billion won (US$241.7 million) in the second quarter of this year, GS Caltex 80 billion won, S-OIL 25.67 billion won, and HD Hyundai Oilbank 244.9 billion won. The four’s total will reach 275.8 billion won, down by 96.3 percent from the same period of 2022 and down by 78.6 percent from the previous quarter.

However, the Korean refining industry is expected to improve in the second half of this year. In fact, oil refiners’ refining margins are expected to steadily increase in the second half of this year. After averaging US$3.50 per barrel in April, refining margins rose to US$3.90 in May and US$4.60 in June. In the first week of July, refining margins were US$4.40 per barrel.

More good news is that international oil prices and product spreads (margins) are recovering. Typically, refining margins rise with oil price hikes except when crude oil prices outweigh oil product prices. The price of Dubai crude oil at the close of trading on July 13 was US$81.90 per barrel. This marked the first time since April 26 that the closing price of Dubai crude oil has been above US$80 per barrel.

Product spreads are also rising slightly. Excluding refining margins for gasoline, July refining margins for kerosene, diesel (0.001 percent), and diesel (0.05 percent) were US$16.10, US$18.70, and US$18 per barrel, respectively, as of July 13, according to the Korea National Oil Corp.’s Opinet. All of them inched up from the Q2-Q4 averages of US$14, US$15.60, and US$14.60.

Barely Breaking Even

Operating Profits of Big 4 Korean Oil Refiners Expected to Plunge by 96%+ in Q2

By Yoon Young-sil
Completing Full Process

Korean-style Open Innovation Gains Traction as Domestic, Foreign Pharmaceutical Companies Team Up

By Jasmine Choi

The trend of collaborations between domestic and foreign enterprises of various sizes to achieve success in new drug development is on the rise. Such collaborations are viewed within the industry as a potential model for “Korean-style Open Innovation” in the pharmaceutical and biotech sectors.

According to industry sources on July 30, analysis of clinical trial results of combination therapy using Yuhan Corporation’s non-small cell lung cancer treatment Leclaza and Janssen’s biospecific antibody treatment Amivantamab are expected to commence in the second half of this year. Yuhan introduced the Leclaza candidate substance from domestic biotech firm Oscotec, optimized the substance and completed clinical trials before exporting the technology to global pharmaceutical company Janssen.

This case is a typical example of a multi-company collaboration where a venture company or a university discovers a new drug candidate, a domestic pharmaceutical company develops it, and the technology is then transferred to a global pharmaceutical giant.

Domestic ventures have the innovative ability to develop new candidate substances or new technologies, but they often lack the necessary funds to complete the development process. In contrast, large domestic pharmaceutical companies have abundant clinical experience and capital to introduce new technologies, but they may lack the capacity to carry out Phase 3 clinical trials overseas or to secure overseas licenses and business operations.

Therefore, the possibility of candidate substances becoming blockbuster new drugs increases when domestic pharmaceutical companies acquire venture substances, develop them to some extent, and then transfer the technology to global pharmaceutical giants with overseas clinical and marketing capabilities. The industry views this kind of tripartite collaboration as gradually establishing itself as a Korean-style Open Innovation model.

In particular, if this leads to overseas licensing and market release, ventures and pharmaceutical companies can generate significant revenue by receiving royalties based on sales, in addition to the existing milestone-based technical fee structure. The multinational pharmaceutical companies that hold the rights also stand to benefit.

In a similar example, Yuhan Corporation is currently negotiating to transfer the technology for the allergy treatment GI-301, which it acquired from new drug development company GI Innovation, to a global pharmaceutical company. The company also imported degenerative disc treatment technology from Ensol Biosciences, developed it domestically, and exported the technology to Spine BioPharma in the U.S. in 2018.

In addition, Handok transferred the technology of a target anticancer drug, jointly researched with CMG Pharmaceuticals, to a company in Singapore. Although the technology was returned, Bridge Biotherapeutics also introduced a candidate substance for idiopathic pulmonary fibrosis treatment from LegoChem Biosciences and exported the technology to Boehringer Ingelheim.

However, the profits from such tripartite collaborations can be less than when one company develops a candidate substance from discovery to licensing.

Still, industry insiders stress the importance of gathering funds and successful experiences through such collaborations, noting that there are not yet many companies in Korea capable of managing the full drug development process.
Companies investing in biopharmaceutical-related technologies and production facilities will now be eligible for a maximum tax deduction of 35 percent.

On July 27, the Ministry of Economy and Finance held the 56th session of the Tax System Advancement Review Committee presided over by Deputy Prime Minister and Minister of Finance Choo Kyung-ho, where they deliberated and approved the “2023 Tax Law Amendment” containing these provisions.

The amendment includes the addition of eight biopharmaceutical technologies and four facilities in the category of “national strategic technologies and commercialization facilities” eligible for investment tax deductions. This move solidifies and expands the measures announced in the “Plan for Nurturing Global Clusters in Advanced Industries” last month and the “Second-half 2023 Economic Policy Direction” earlier this month with the application of the new provisions commencing from investments made in July.

Currently, the tax deduction rates for investments in national strategic technology production facilities are 15 percent for large and medium-sized enterprises and 25 percent for small and medium-sized enterprises. Moreover, companies can claim an additional temporary investment tax deduction of 10 percent for this year only based on the increase in investment compared to the average of the previous three years. As a result, large and medium-sized enterprises can receive up to a 25 percent tax deduction, and small and medium-sized enterprises can benefit from up to a 35 percent tax deduction for their investments.

Earlier this year, the government included biotechnology in national strategic technology, but it was limited to the vaccine sector. However, with this latest amendment, the scope of support has been expanded to encompass biopharmaceuticals, and specific criteria have been established, including the discovery and manufacturing technology of biopharmaceutical candidates, phases 1 to 3 clinical trial technology, and more.

The detailed categories cover a wide range of aspects, such as the discovery and manufacturing technology of biopharmaceutical candidates, bio-similar manufacturing and improvement technology, clinical pharmacology evaluation technology (phase 1 trials), therapeutic exploratory clinical evaluation technology (phase 2 trials), therapeutic confirmatory clinical evaluation technology (phase 3 trials), biopharmaceutical raw material and substance manufacturing technology, biopharmaceutical component and equipment design and manufacturing technology, as well as non-clinical trial technology for biopharmaceutical candidates. Additionally, it includes the facilities involved in the discovery and manufacturing of biopharmaceutical candidates, biosimilars manufacturing, biopharmaceutical raw material and substance manufacturing, and biopharmaceutical component and equipment design and manufacturing.

The recent global spotlight on biosimilars as a battleground for the bio-industry worldwide added significance to their inclusion in the national strategic technology list for the bio-industry. With over ten drug patents expiring this year in the United States alone, it is estimated that biosimilars will create a new market exceeding US$30 billion (38.48 trillion won). Consequently, domestic companies such as Celltrion Healthcare and Samsung Bioepis have entered the biosimilars market, particularly targeting “Humira,” an autoimmune disease treatment that held a monopoly for eleven years.

Historically, the substantial costs associated with the development, clinical trial, and approval of biosimilars served as significant entry barriers for the industry. However, as biosimilars are now classified as national strategic technology, the perceived burden on the industry is expected to be considerably reduced. For instance, Celltrion and Samsung Bioepis spent 412.3 billion won and 268.2 billion won, respectively, on research and development (R&D) last year. The government initially planned to establish a 500 billion won K-Bio and Vaccine Fund in February, intending to attract private investment. However, due to a lack of investor interest, the fund’s launch has been scaled down to approximately one-third of the original plan.
Twelve executives, including the CEO of Saudi Arabia’s Neom, visited Seoul on the occasion of the Neom City exhibition, the first of its kind in Asia.

Holding a media conference on July 25, the day before the opening of the Neom exhibition at Dongdaemun Design Plaza (DDP) in Seoul, the executives emphasized that, actually, the Neom City project is coming true.

Neom is an administrative region designated by Saudi Arabia in the northwest of the country with an area of 26,500 square kilometers, 44 times the size of Seoul. The Middle Eastern kingdom is promoting four major projects in Neom -- the linear new city The Line; Oktagon, an octagonal high-tech industrial complex floating on the sea; Troje-na, a mountainous tourism destination; and Sindalaha, a luxury resort with a golf course and a yacht marina.

Launched five years ago under the leadership of Crown Prince Muhammad bin Salman, the Neom City project began construction work in earnest a year and a half ago after four years of planning.

“Speaking about the current state, there are communities and schools in Neom. Construction has begun all over Neom,” said Nadmi Al Nasr, CEO of Neom. He emphasized his commitment to successfully completing the project amid criticisms over its lack of feasibility. “Neom is a story, and it’s a story that will continue to be told for 25 years,” Nadmi emphasized.

The project cost will be astronomical. The estimated total cost alone is US$500 billion (approximately 640 trillion won).

Many companies around the world, including Korean companies, are scrambling to take big orders for Neom City. “When Neom Phase 1 is completed in 2030 it will send a message to the world that this is a practical and viable project,” Nadmi said. “We believe this will enable us to have a successful second round of funding.” “The Neom City project will give opportunities to many Korean companies in the investment, funding and partnership formation phases,” he emphasized several times.

Currently, Samsung C&T and Hyundai E&C are working on an infrastructure tunnel for The Line, while Hanmi Global is involved in program management. Samsung C&T, Hyundai E&C and other Korean companies are seeking to win new tenders for the project.

“I think we will be able to announce Korean companies’ signing additional Neom-related contracts in the second half of this year,” said Won Hee-ryong, Korean minister of land, infrastructure, and transport, who attended the media conference with Nadmi. “We will open a liaison office in Neom to connect Korean companies and experts with officials there.”

About 250 people from approximately 100 Korean companies attended Neom’s closed-door project introduction event the day before. Heads of sectors such as construction, media, education, healthcare, tourism, and energy from Neom attended and had one-on-one meetings with those from Korean companies.

“Each company presented an average of three projects to Neom, which means that about 300 projects were presented to Neom,” said a MOLIT official.
Samsung SDI is reportedly in talks with several automakers over volume production of all-solid-state batteries in 2027.

“We cannot disclose customer names, but we are currently in talks with several automakers over a volume production schedule of 2027,” said Sohn Michael, vice president and head of the Strategic Marketing Team at Samsung SDI’s Medium- and Large-sized Battery Division, during a conference call to announce the company’s second-quarter earnings on July 27.

Samsung SDI also mentioned the development of LFP batteries for mid- to low-priced cars. “Automakers are launching various electric vehicle models by segment, including premium volume entries, just like conventional internal combustion vehicles, as part of their electrification strategies,” Sohn said.

Regarding the concern that Samsung SDI may abandon its premium strategy, Samsung SDI will not do that. But we want to have a broad product portfolio by securing both premium NCA and top-end premium all-solid-state battery volume-entry NMX LFP technologies.”

LG Chem announced that it will invest in the separator business in the United States within this year and establish a local supply system for separators by 2027.

“As for the separator business, LG Chem is promoting customer diversification while having discussions with customers on appropriate production scales under the premise of separator localization in the United States,” LG Chem said in a conference call held after its second-quarter earnings announcement on July 27. “Under the U.S. Inflation Reduction Act (IRA), battery components are required to be 100 percent localized in the United States beginning from 2029, so we will confirm investment in the localization of separators in the United States within this year.”

“Our Hungarian joint venture with Japan’s Toray, which was launched in 2022, started producing separator fabrics in May and the joint venture’s yields are improving,” LG Chem said. “It is still too early to say whether it will be profitable, but we expect to expand its volumes and boost its profitability beginning from 2024.”

In the case of anode materials, LG Chem said it was considering investing in the upstream industries in countries that have free trade agreements (FTAs) with the United States as the share of sales in the U.S. was large.

LG Chem reported operating profit of 615.6 billion won on a consolidated basis in the second quarter of this year, down 29.9 percent from the same period of 2022. Compared to the previous quarter, it was down 22.2 percent. This was due to a significant decrease in profitability due to the sluggish petrochemical industry. During the same period, its sales rose 18.8 percent to 14.5415 trillion won, a new record.
Hanwha Aerospace has achieved the remarkable feat of supplying 129 Redback armored vehicles to the Australian Army.

Hanwha Aerospace announced on July 27 that its Redback armored vehicle has been selected as the preferred model of Infantry Fighting Vehicle (IFV) in the “Land 400 Phase 3 Project,” which is part of the Australian Army’s modernization program. The project by the Australian Army aims to replace the American M113 armored vehicles introduced in the 1960s. Once the final contract is signed, Hanwha Aerospace will supply 129 Redbacks from the second half of 2027. The contract value will be finalized during negotiations, and is known to include a comprehensive after-service contract for the armored vehicles worth about 24 billion Australian dollars (US$16 billion).

The total contract value, including post-service, is expected to be around 60 billion Australian dollars.

The victory of Hanwha Aerospace in the bidding war, which initially leaned towards Germany, is largely attributed to the company’s meticulous export strategy. The company established its Australian subsidiary in January 2019, before the official announcement of the project by the Australian government. Two months later, they promptly submitted a project proposal to the Australian government. The Redback is a new model designed and developed to meet the performance requirements of the Australian Army.

The commitment to build a factory in Geelong, as outlined in the project proposal, is also seen as a winning factor. Geelong is both the hometown and constituency of Richard Marles, the Minister of Defense. In Australia, members of parliament also hold ministerial posts.

After acquiring a stake in Samsung Techwin in June 2015 and changing its name to Hanwha Techwin (currently Hanwha Vision), the Hanwha Group has strengthened its defense sector. In 2017, the company changed its name to Hanwha Aerospace and in November of last year, it absorbed Hanwha Defense. Then in April this year it merged with Hanwha Corporation Defense Division. Through these integrations, it expanded its business areas from existing aviation engines and space businesses to firepower, mobility, air defense, unmanned systems (Hanwha Defense), ammunition, guided weapons (Hanwha Corporation Defense Division), and became a comprehensive defense company. The Hanwha Group also acquired Daewoo Shipbuilding & Marine Engineering, expanding its business to include warships.

The successful contract in Australia is seen as proof of Hanwha Aerospace’s technological capabilities to meet the requirements of various countries. As a result, there are analyses that the likelihood of winning orders in countries such as Romania and Poland is high. The Romanian government plans to purchase 298 armored vehicles, and it is known that Poland is also considering the introduction of the Redback.
The newly appointed CEO, Lee Hak-jae, is set to propel Incheon International Airport’s logistics services into a new era. His leadership promises to infuse fresh vitality into the airport’s logistics operations and fulfill his vision of establishing Incheon as a global logistics hub.

Born in 1964, President Lee graduated from Seoul National University and earned master’s and doctoral degrees from Chung-Ang University. He has previously served as the mayor of Incheon Metropolitan City’s Seo-gu Office, and was a three-term member of the 18th to 20th Korean National Assembly.

In his inaugural address, Lee highlighted the pivotal crossroads at which Incheon International Airport currently stands. “Due to the post-pandemic era and digital innovation, we are encountering a tremendous transformation in our business management environment,” he said. Highlighting the importance of Incheon leading the global airport industry, he emphasized, “We must become a ‘first mover,’ creating value.”

Lee’s commitment to creating a ‘smart logistics cluster’ promises to transform Incheon International Airport into a global integrated mega hub.

The initiative will prioritize several key areas, such as the development of a smart cargo terminal, a Joint Distribution Center for Small and Medium-sized Enterprises (SMEs), expansion of the global network, and the attraction of air cargo and logistics specialists, including e-commerce and 3PL companies.

Paving the Way for the Smart Cargo Terminal Project

Incheon International Airport is steadfast in its commitment to the development of a smart cargo terminal based on future-forward technology, aiming to boost its competitive stance in air cargo and logistics.

Through Business Process Reengineering (BPR), the airport is partnering with experts from Korean Air and Asiana Airlines to formulate future operating processes for the smart cargo terminal. These new procedures will integrate Fourth Industrial Revolution technologies, such as unmanned robots, artificial intelligence, big data, and autonomous driving.

A pilot project set to be operational by 2027 will assess the suitability of IT technology for cargo terminal operations and steer the development of a smart cargo terminal.

Strengthening Global Networks and Amplifying Cargo Volume

Global network expansion remains a core focus area for Incheon International Airport. As of December 2022, the airport’s cargo-dedicated routes connect to 107 cities across 43 countries via 25 airlines.

Connections include 20 locations in China, 6 in Japan, 10 in Southeast Asia, 27 in North America, 5 in Central and South America, and 18 in Europe. Including passenger flights, Incheon Airport’s air network offers uninterrupted connections to 152 cities across 53 countries year-round.

In a concerted effort to expand the new network and boost cargo volume, Incheon International Airport is extending various incentives to airlines. These benefits range from subsidies covering up to 100% of landing fees and actual marketing expenses for two years, particularly for those who are newly incorporated, initiating new routes, or undertaking nighttime operations. The airport is also providing additional benefits to airlines that demonstrate an increase in cargo volume.

Moreover, Incheon International Airport is implementing joint marketing initiatives using these incentives. In partnership with 12 airlines, the airport
is conducting informative sessions and running online joint advertising campaigns to attract a larger cargo volume.

Moving forward, Incheon International Airport is committed to crafting robust strategies for cargo transport network expansion. Through strategic collaborations with global companies, the airport aims to consolidate its position as a global hub, propelling itself into a new chapter in logistics operations.

Clearing the Runway for SMEs: Development of the Joint Distribution Center

Incheon International Airport is making significant strides in enhancing the logistics capabilities of SMEs. Known for offering an array of benefits to its logistics complex tenants, the airport is now accelerating its focus on creating a dedicated logistics center for SMEs, a step forward in its ongoing commitment to fostering social value.

In partnership with Korea SMEs and Startups Agency (KOSME), the airport has been committed to developing a Joint Distribution Center. This initiative, specifically designed to serve e-commerce businesses and SMEs, underpins the airport’s mission to enhance SMEs’ air freight logistics competitiveness and support their global expansion.

Scheduled to break ground in the latter half of next year, the Joint Distribution Center will occupy approximately 25,400 square meters within the airport’s second logistics complex. The center, equipped with state-of-the-art smart logistics equipment, aims to offer a comprehensive suite of export-related services to e-commerce enterprises and SMEs.

This past June, the KOSME appointed the Smart Trade Hub Consortium (STH Consortium) to manage the SME-exclusive joint logistics center and formalized this appointment with an operation contract.

Comprising five diverse enterprises – including large corporations, public corporations, and SMEs – the STH Consortium will provide all-inclusive logistics services, such as product storage, transport, and export customs clearance, to air freight exporting SMEs for the next ten years.

Attracting Specialist Air Cargo and Logistics Companies

Simultaneously, Incheon International Airport is intensifying efforts to attract specialized air cargo and logistics companies, paying particular attention to the flourishing Asia-Pacific air cargo market.

As of 2022, the Asia-Pacific region holds the largest share of the global air cargo market with a stake of 32.4% (source: IATA), successfully positioning itself as a global leader in the air freight logistics industry.

Reflecting on Incheon International Airport’s strategic location, connecting major cities in China, Japan, and Southeast Asia, could be considered as one of many advantages that Incheon International Airport provides for logistics companies. Moreover, the airport boasts the most economical operating costs in the region, including ground handling fees and landing fees, when compared to other major regional airports.

The airport’s Free Trade Zone (ICN’s Free Trade Zone) provides the swiftest customs procedures among all World Customs Organization (WCO) member countries. In line with government guidelines, the airport continues to refine its policies for operating the Global Distribution Center (GDC).

Predominantly used by e-commerce businesses, the GDC at Incheon International Airport serves as an international logistics hub. It provides storage for global shippers’ products and manages their classification, repackaging, and shipping as per individual order requirements.

Several high-profile companies have already capitalized on the advantages offered by the airport. ASML Holding N.V., the world’s largest semiconductor equipment supplier based in the Netherlands, established its GDC at Incheon International Airport as early as 2008. Similarly, iHerb, a leading e-commerce company specializing in vitamins and health supplements, designated Incheon International Airport as its GDC in 2018.

In addition, DB Schenker, a global logistics company from Germany, operates a distribution center at the airport, and Spasys1, an e-commerce logistics hub primarily dealing with clothing, began the construction of its GDC at Incheon International Airport last year.

In the future, Incheon International Airport is projected to continually draw global logistics companies to its second logistics complex. The airport is currently engaging in productive discussions with various global third-party logistics companies (3PL).

Under the leadership of the new CEO, Lee Hak-jae, the airport is focusing on expanding its logistics services through a variety of strategies. Lee places strong emphasis on customer feedback, believing that “the answers lie in the field.”

Reflecting on Incheon International Airport’s future-oriented approach, Lee Hak-jae asserted, “By continuously investing in the development of logistics infrastructure and networks, Incheon International Airport aims to adapt to evolving air cargo market conditions and establish itself as the world’s leading air cargo hub.”
About 100 Billion Won

Philip Morris Accused of Tax Evasion Following Cigarette Price Increase

By Jasmine Choi

The Supreme Court of Korea has ruled that Philip Morris Korea evaded close to 100 billion won in taxes by simulating wholesale sales of its stored cigarettes in anticipation of a cigarette tax increase in 2015.

On July 27, the Second Division of the Supreme Court stated that it had overturned the original verdict in the special consumption tax lawsuit filed by Philip Morris Korea against the National Tax Service, which had called for a tax refund to the company. The case has now been sent back to the Suwon High Court.

Originally, cigarettes were not subject to special consumption tax. However, with the revision of the special consumption tax law in 2014, each pack of cigarettes was taxed an additional 594 won, and the cigarette consumption tax increased from 641 won to 1007 won. Consequently, the price of cigarettes rose from 2,500 won to 4,500 won in January 2015.

Anticipating this increase, Philip Morris Korea erected temporary warehouses from September to December 2014 and manipulated their computer system to accumulate about 191 million packs of cigarettes, making it appear as though these were sold to wholesalers by the end of 2014, prior to the price increase.

The National Tax Service argued that Philip Morris Korea had sold its stored cigarettes to wholesalers at an inflated price after January 2015, but had manipulated the sale to appear earlier in order to evade the additional special consumption tax that followed the price increase. The company was then taxed 99.7 billion won (US$77.8 million).

Philip Morris Korea objected to the National Tax Service’s decision and subsequently filed a lawsuit when their objection was rejected by the Tax Tribunal. Both the first and second trials accepted the company’s claim that the cigarettes in question were actually shipped to wholesalers in 2014, before the special consumption tax was applied.

However, the Supreme Court viewed Philip Morris Korea’s temporary warehouses as a stopgap measure intended to accumulate as much inventory as possible before the price increase, in order to profit from the price differential later on. The court ruled, “Even if the computer system shows that the cigarettes were sold in advance before the tax increase, the special consumption tax should be levied based on Jan. 1, 2015, when the cigarettes actually moved from the temporary warehouses.”

Plans Continue

LG Display Announces It Will Invest in 6th-gen OLED Displays on Schedule

By Jung Suk-yee

LG Display announced that it will hold a conference call to announce its earnings for the second quarter of this year on July 26. The display giant added that it was proceeding with its investment in 6th-generation IT organic light-emitting diode (OLED) displays as scheduled.

“We are proceeding with investment in 6th-generation OLED displays as scheduled,” an LG Display official said “We will continue to invest in 6th-generation OLED displays by the first half of next year. However, nothing has been finalized yet with regard to a possible investment in 8th-generation OLED displays.”

LG Display emphasized that it will make investment decisions after taking a closer look at the possibility of technological advancement, how much technological progress will be made and whether technology will develop to a level that can contribute to increasing the company’s profit.

The Korean display giant expected its investment to decline in 2024, compared to this year. “Due to the nature of the display industry, we order supplies for investment in advance and investments are carried out over a long period of time. Therefore, it is not easy to flexibly manage large amounts of money to adjust investment amounts according to the company’s situation,” the official said.

“This year, we are making investments in the mid-to-high range of the existing guidance of 3 trillion won while separately making cost efficiency efforts.”

“We have not yet finalized our investment amount and business plan for 2024,” the official added. “But we have reviewed our ongoing investments and other plans. We now believe that we will be able to reduce the amount next year compared to this year.”
Redback vs. Lynx
Hanwha Competes with German Firm for 10 Trillion Won Australian Armored Vehicle Contract
By Jasmine Choi

The export status to Australia of Hanwha Aerospace’s Infantry Fighting Vehicle (IFV), the Redback, is expected to be announced within a few days. When it was tendered in 2018, the project’s scale was 450 armored vehicles (approximately 16 to 24 trillion won), but due to the change of the Australian government and the reorganization of the budget, it has now been reduced to 129 vehicles with a budget of about 10 trillion won.

According to the defense industry on July 26, the Australian government plans to decide whether or not to purchase the Redback by the end of this month at the earliest. The Australian Financial Review (AFR) recently reported, “The Australian government will announce the final results of the LAND 400 Phase 3 project by the end of this month.” The announcement of the priority negotiator for the project was scheduled for the first quarter of last year, but it looks like it will be decided this year, five years after the project began.

The LAND 400 project of the Australian Ministry of Defense is a project to replace the old wheeled and tracked armored vehicles owned by Australia with new models. These armored vehicles have wheels like regular cars and are better for quickly transporting troops on paved roads and flat ground. Tracked armored vehicles move by pushing the ground with tracks and have excellent mobility in unpaved roads and wildlands.

The project was divided into three phases. The first phase was a study of project feasibility completed in 2016. The second phase, completed in 2018, was a replacement of 257 old wheeled LAV-25 armored vehicles with the ultimately adopted Germany’s Rheinmetall’s Boxer model. The Australian government then introduced a total of 211 vehicles.

The third phase is a project to introduce new tracked armored vehicles to replace the old M113AS4 model with 340 units. The initial tender was conducted in 2018, and Hanwha Aerospace’s Redback (then Hanwha Defense) and Rheinmetall’s Lynx armored vehicles became the final candidates the following year.

The Redback, named after the redback spider that lives in Australia, was developed targeting the Australian market from the beginning. It weighs 42 tons and measures 7.7 m in length, 3.64 m in width, and 3.72 m in height. Its maximum speed is 65 kph, and its cruising range is 520 km. It is equipped with a power pack (engine and transmission) mounted on the K9 self-propelled gun chassis and is equipped with a 30 mm machine gun as its main weapon.

Rheinmetall’s Lynx armored vehicle, its opposition, also has similar specifications to the Redback. The Lynx weighs 44 tons, has a maximum speed of 65-70 kph, and has a cruising range of about 500 km. Like the Redback, it can carry up to 12 people (3 crew members, 8 troops) and is armed with a machine gun. The Australian AFR quoted military sources as saying, “The Redback is the vehicle preferred by the military, but Rheinmetall’s Lynx also meets the performance requirements.”

Until last year, the domestic defense industry had strongly predicted a Redback victory. Uhm Dong-hwan, the Commissioner of the Defense Acquisition Program Administration, said at the National Assembly’s National Defense Committee in August last year, “The Australian side expects the preferred negotiator to be selected in September,” and “If this happens, we judge that we can export the Redback to Australia.”

However, since Australia has reduced the scale of the project and postponed the announcement, there are worries that Korea cannot be optimistic about winning the order. A defense industry official said, “The uncertainty of the project is higher now than at the beginning.”

Hanwha Aerospace strengthened its defense cooperation by signing an export contract for the K9 self-propelled gun and others with Australia in 2021. It is currently investing 200 billion won to construct a state-of-the-art armored vehicle production facility (H-ACE) within the Avalon Airport in Geelong, Australia. And if the Redback export is successful, it is expected to use this factory.

Catherine Raper, Australian ambassador to Korea, said at the “Seeking Ways to Increase Economic and Security Cooperation between Korea and Australia” forum held at the National Assembly Member’s Office on the 20th, “The Korea-Australia self-propelled gun project is a successful model of cooperation between the two countries, and the Geelong production plant currently under construction has great value for the partnership between the two countries.” She added, “We hope that the ongoing project will proceed well and further expand the relationship between the two countries.”
Continuing their struggle, both Samsung Electronics and SK hynix faced losses in the second quarter, following their challenging performance in the first quarter. The cumulative deficit for both companies in the first half of this year reached a substantial figure, nearly approaching 15 trillion won (US$11.76 billion). Nevertheless, there is renewed optimism for a potential turnaround in the latter half of this year, driven by the reduction in its production of NAND flash memory and a surge in demand for artificial intelligence-related high-value products, such as DDR5 and High Bandwidth Memory (HBM).

SK hynix released its financial results for the second quarter on July 26, revealing an accumulated loss of over 6 trillion won in the first half of the year alone. According to the company’s disclosure, the second-quarter consolidated revenue, based on the linked basis, stood at 7.3059 trillion won, accompanied by an operating loss of 2.8821 trillion won. Compared to the same period last year, the revenue experienced a significant drop of 47.1 percent, marking a continuation of losses for three consecutive quarters.

Samsung Electronics is also bracing for the official release of its second-quarter results on July 27, following the preliminary announcement earlier this month. As indicated by the preliminary figures, the operating profit remained a mere 600 billion won, and it is estimated that the semiconductor division alone incurred an operating loss ranging from 3 to 4 trillion won, building upon the 4.6 trillion won loss in the first quarter.

Despite the ongoing losses, industry experts perceive that the semiconductor market has entered a recovery phase, as evidenced by the gradual reduction in the rate of operating losses. In the case of SK hynix, the loss scale for the second quarter diminished compared to the preceding quarter, and the operating loss rate also improved from 67 percent in the first quarter to 39 percent in the second quarter. During a post-results conference call, SK hynix CFO and Vice President Kim Woo-hyun said, “The company recognized an inventory valuation loss of approximately 500 billion won as NAND prices continuously declined in the second quarter. This was a significant reduction in loss compared to the previous quarter.”

The Business Survey Index (BSI) for August, released by the Federation of Korean Industries on the same day, also provided encouraging signs. The BSI for the electronic and communication equipment sector, which includes semiconductors, rebounded above the baseline of 100.0 for the first time in 11 months since 117.6 in September 2022.

In response to the persistent deterioration in performance, SK hynix decided to implement further reductions in NAND flash production. The company aims to curtail the current production level by approximately 5 to 10 percent. Vice President Kim said, “Since NAND has higher inventory levels and lower profitability compared to DRAM, we decided to expand the scale of the existing NAND reduction to normalize inventory levels sooner.”

Some experts view this reduction as a measure to enhance profitability. Kim
On July 27, SK telecom held the “Global Telco AI Alliance CEO Summit” in the Seoul Walkerhill hotel, attended by key executives from leading global telecommunications companies in Europe, the Middle East, and Asia. SK telecom and other global telecommunications companies have come together as one team to lead the changes in the landscape of the AI industry.

SK telecom announced that it hosted the “Global Telco AI Alliance CEO Summit” in Seoul Walkerhill on July 27, attended by Chey Tae-won, chairman of SK Group, Yoo Young-sang, president of SK telecom, and key executives from leading global telecommunications companies in Europe, the Middle East, and Asia. SK telecom and other global telecommunications companies have come together as one team to lead the changes in the landscape of the AI industry.

At the event, the Global Telco AI Alliance, led by SK telecom, Deutsche Telekom, e&, and Singtel, was officially launched. Chey Tae-won hosted the summit, which was attended both online and offline by Claudia Nemat, deputy CEO of Deutsche Telekom; Hatem Dowidar, CEO of e& Group; and Yuen Kuan Moon, CEO of Singtel Group. Key executives of SK telecom, including President Yoo and Jeong Seok-geun, head of global AI business, participated to discuss strengthening business cooperation to lead the global AI ecosystem.

At the summit, SK telecom, Deutsche Telekom, e&, and Singtel launched the Global Telco AI Alliance and signed a business agreement for cooperation in the AI business. The four companies agreed to jointly develop a Telco AI Platform based on core AI capabilities. The Telco AI Platform will play a pivotal role in planning new AI services, including joint construction of a Large Language Model (LLM) for developing AI agents for each telecommunications company in Europe, the Middle East, and Asia.

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With AI memory demand remaining strong, the AI memory market based on ChatGPT is expected to continue to expand in the second half of this year. During the conference call, when inquired about the HBM product road map, SK hynix revealed plans to commence mass production of 5th generation HBM, HBM3E, in the first half of next year, with the 6th generation product, HBM4, set to enter mass production in 2026. Samsung Electronics is also expected to unveil products such as HBM3P, the 5th generation, in the second half of this year.

Yang-paeng, a researcher at the Korea Industrial Technology Institute, stated, “The NAND market is more challenging than the DRAM market due to fierce competition. Reducing production is a method to proactively cut costs and decrease inventory, which can help reduce the scale of losses and improve profitability. However, there could be a reverse effect when production volume decreases substantially during an upturn phase.”

Additionally, SK hynix underscored its dedication to supply high-value products like HBM3. The company said, “We have accumulated experience and technological competitiveness in the early stages of the HBM market and plan to continue leading the market.” It also highlighted that the revenue from graphical DRAM, including HBM, has grown to exceed 20 percent of total DRAM revenue. This is largely attributed to increased sales of AI servers, which demand HBM, and high-capacity DDR5 modules, both contributing to the enhancement of the DRAM average selling price (ASP).

Consequently, SK hynix appears determined to focus on improving NAND profitability and boosting HBM sales in the second half of this year. During a communication event at the Cheongju plant on the same day, SK hynix President Kwak Noh-jung announced the establishment of the “HBM Capability Enhancement Task Force” and the “NAND Profitability Enhancement Task Force.”

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Creating One Team

SK telecom Launches ‘Global Telecom AI Alliance’ Connecting Asia, Europe, Middle East

By Jasmine Choi

Virtual and actual participants of the Global Telecom AI Alliance pose for a photo together at the Seoul Walkerhill hotel on July 27.
Increased Cooperation

Korea National Railway, Kyrgyz Railways Sign MOU

By Jasmine Choi

Korea National Railway announced on July 26 that it had signed a memorandum of understanding (MOU) with Kyrgyz Railways for cooperation between the two entities, including a signal modernization project at Balykchy Station.

Through this MOU, the two organizations will establish and operate a working group for systematic railway cooperation, and share information, technology, and experience related to the Balykchy Station signal modernization project, among other areas of mutual cooperation.

The Korea National Railway plans to conduct its own feasibility study in the second half of this year with the aim of getting the Balykchy Station signal modernization project selected for the 2025 Ministry of Land, Infrastructure, and Transport Official Development Assistance (ODA) project and securing the project contract. Balykchy Station is the terminus of the northern railway line in Kyrgyzstan.

Kim Han-young, chairman of the Korea National Railway, expressed his hopes by saying, “With the signing of this memorandum of understanding, we hope that exchanges and cooperation on railway projects between the two countries will continue to expand.”

Camp Hill

GS E&C’s Elements Europe Secures UK Modular Housing Project

By Jasmine Choi

Elements Europe, a subsidiary of GS E&C, has completed its contract for the UK’s largest modular rental housing project.

Elements Europe announced on July 26 that it won the Camp Hill project, which constructs rental housing and commercial facilities using a steel module method in Birmingham, U.K. The project encompasses six buildings of 3 to 26 floors, a total of 550 units, amounting to approximately 210 billion won (US$165 million).

The project secured by Elements Europe is a Build-to-Rent (BTR) operation by Goodstone Living, a U.K. specialist developer, involving redevelopment in downtown Birmingham. Upon completion, the property will be leased.

As the main contractor of this project, Elements Europe will take charge of the construction tasks, including the production and installation of rental housing and commercial facilities using steel modules. Completion is expected in the first half of 2026.

The Camp Hill project site is located about 1.6 km from the Birmingham city center.
Industry-Academic Cooperation

Hyundai Motor Joins Forces with SNU to Secure Cutting-edge Battery Tech

By Jasmine Choi

Hyundai Motor Group Chairman Chung Eui-sun has initiated efforts to secure groundbreaking technology in the battery sector. Collaborating with prominent scholars and experts in the domestic battery sector, the company aims to bolster research in next-generation batteries with a particular emphasis on solid-state and lithium metal batteries.

On July 25, Hyundai Motor Group unveiled the “Hyundai Motor Group-Seoul National University Battery Joint Research Center” located at Seoul National University’s Gwanak campus. In a span of 1 year and 8 months since the initiation of discussions with Seoul National University in November 2021, the company successfully constructed a three-story (901 m²) research facility. This marks the first-ever facility dedicated exclusively to electric vehicle batteries within Seoul National University.

The Battery Joint Research Center operates on a four-division system, focusing on lithium metal batteries, solid-state batteries, battery management systems (BMS), and battery manufacturing technology.

Central to the research center’s objectives is the development of next-generation batteries, particularly lithium metal and solid-state batteries. Out of the total 22 joint research projects, 14 are directly related to lithium metal and solid-state batteries. The research includes topics such as durable lithium-electrolyte material element technology and shape analysis to minimize degradation in lithium metal batteries. For solid-state batteries, research encompasses sulfide-based cathode material, electrode and electrolyte coating methods, and the derivation of high-energy-density anode materials.

A group of 21 professors, researchers, and doctoral students from prominent domestic universities, including Seoul National University, Korea Advanced Institute of Science and Technology, Ulsan National Institute of Science and Technology, Daegu Gyeongbuk Institute of Science and Technology, Hanyang University, Sungkyunkwan University, and Chungnam National University, will spearhead these research projects. Hyundai intends to integrate the successful technologies developed in the joint research center into its mass production processes. The company is planning to invest over 30 billion won (US$23.46 million) in the research center over the course of approximately seven years until 2030.

SMTOWN LIVE 2023

KB Kookmin Bank to Co-host K-POP Concert with SM Entertainment in Jakarta

By Jasmine Choi

KB Kookmin Bank has announced its participation as a title sponsor in co-hosting SMTOWN LIVE 2023 with SM Entertainment in Jakarta, Indonesia.

“SMTOWN LIVE 2023 SMCU PALACE @JAKARTA with KB Bank” will be held on Sept. 23 at 6:30 p.m. (local time) at the Gelora Bung Karno Main Stadium in Jakarta, Indonesia, with an estimated attendance of 50,000 people.

KB Kookmin Bank aims to increase the recognition of the KB brand in the Indonesian market via participation in this concert. Bank KB Bukopin, a subsidiary of KB Kookmin Bank, will also participate as a local sponsor. The concert is set to promote friendship and harmony between the future generations of both countries, marking the 50th anniversary of diplomatic relations between Korea and Indonesia.

Artists from SM Entertainment, including TVXQ, Super Junior, Red Velvet, NCT 127, NCT DREAM, WayV, and aespa, as well as a new male group slated for debut in September, will present spectacular performances exclusive to this concert.
SK Inc. announced that its board of directors (BOD) held a meeting on July 26, in which the board declared to distribute an interim dividend of KRW 1,500 per share, matching last year’s payout. The total interim dividend payout amounts to approximately KRW 83.6 billion. SK Inc. has been distributing interim dividends for six consecutive years, or since 2018.

This interim dividend marks the first dividend payout after amending the Articles of Incorporation. The amendment, which was approved at SK Inc.’s general shareholders meeting in March 2023, aims to provide investors with key data so that they can make informed investment evaluations. It allows investors to make investment decisions after gaining information about the amount of dividends. In January 2023, the Financial Services Commission and the Ministry of Justice announced recommendations for listed companies to improve the distribution process for dividends. They proposed allowing the record date for interim dividends to fall after the distribution amount is decided.

The record date is set for August 10, 2023. The interim dividend is scheduled to be distributed before August 31 to shareholders.

SK Inc. is focused on strengthening the competitiveness of its major subsidiaries and investments in the following four sectors: advanced materials, bio, green, and digital.

SK powertech, which started mass production of SiC power semiconductors at its new plant in Busan in the first half of this year, aims to triple its production capacity by the fourth quarter of 2023 by optimizing its new plant. EV charging solutions provider SK signet continues to grow its US market share, having recently signed a major contract to supply more than 1,000 chargers to a US company following the completion of its factory in Plano, Texas.

Furthermore, SK pharmteco recently finished building its second cell and gene therapy plant, a groundbreaking biopharmaceutical facility located in France. The company is now gearing up for mass production, set to begin in early 2024. Simultaneously, SK pharmteco is making significant progress in attracting investments to bolster the global competitiveness of its high-growth bio business. SK biopharmaceuticals aims to establish growth engines in innovative new drugs, specifically focusing on radiopharmaceutical treatment therapy and targeted protein degradation treatments. This strategic direction is built on the success the company has achieved with its new drugs for epilepsy.

Furthermore, SK Inc. is actively developing a robust eco-friendly portfolio that can generate high future value. This portfolio includes projects such as small module reactors (SMR) and clean hydrogen technologies. Additionally, the company remains committed to investing in digital technology sectors, such as Artificial Intelligence (AI) and Web3.

SK Inc. plans to bolster its financial soundness in anticipation of potential macroeconomic uncertainties. The company is also dedicated to reinforcing its business competitiveness to ensure that business performance is closely aligned with corporate value.

Check Dividend, then Invest

SK Inc.’s board of directors declares an interim dividend of KRW 1,500 per share

By Jung Min-hee
LG Energy Solution Secures ‘Cobalt Sulfate’ in Canada

By Jasmine Choi

LG Energy Solution has successfully secured a large amount of cobalt sulfate, a key ingredient for electric vehicle batteries, in Canada.

Electra Battery Materials, a Canadian mining company, announced on July 24, local time, that it had signed a long-term supply agreement for cobalt sulfate with LG Energy Solution.

As a result of the agreement, LG Energy Solution will be supplied with 19,000 tons of cobalt sulfate over a five-year period from 2025 to 2029. Last September, the two companies had already agreed to supply 7,000 tons of cobalt sulfate over three years starting this year. This recent deal marks a significant expansion in terms of both supply period and volume.

Electra is the only cobalt sulfate refiner in North America, planning to produce cobalt sulfate at a refinery under construction in Ontario, Canada.

LG Energy Solution has now secured a stable supply of key minerals that meet the conditions of the Inflation Reduction Act (IRA) incentive for its North American factories. This diversification of supply sources has also reduced its dependency on China, which accounts for 71% of the refined cobalt used in electric vehicle batteries worldwide.

JONGGA Kimchi Blast Cooking Contest Successfully Concludes in France, UK

By Jasmine Choi

The JONGGA Kimchi Blast cooking competition, sponsored by Daesang Corporation’s JONGGA, co-hosted by the world-renowned culinary school Le Cordon Bleu, France’s AMA Association (Association Mes Amis), and SF Ad, Inc., has successfully concluded in France and the U.K.

This year’s JONGGA Kimchi Cook Off held in France recorded the highest-ever competition rate of 32:1 with an unprecedented 382 applicants. Notably, a large number of professional chefs participated, making the competition more intense than last year.

On July 11 (local time), the final 12 contestants competed at the Le Cordon Bleu headquarters in Paris. The judges, including Le Cordon Bleu’s Chef Eric Briffard, Associate Chef Favrice Daniel, and AMA Association President Jung Joo-hee evaluated the entries from multiple angles, including creativity, popularity, artistic value, and compatibility with kimchi, the main ingredient.

The final winner was Paris-based professional chef Lucas Renault’s Baek Kimchi Poire, which received unanimous praise from the judges for its harmonious blend of flavors. The second prize went to Isabelle Weller, a student from Munich, Germany, for her The Kimchitini Serenade. The third prize went to Sina Marie-Line for Kimchi Ravioli, Land and Sea Produce (Revi-oile de Kimchi, produit de la terre et de la mar), and the special prize, the JONGGA Prize, was awarded to Georges Camille for Contrast Mille-feuille (Mille-feuille de contraste).
New investments in venture startups plunged by one third in the first half of the year. The number of startups that received big investments plummeted.

According to startup investment information platform TheVC, startups and SMEs received 2.819 trillion won (US$2.160 billion) in investment in the first half of 2023, a 72 percent plunge from 9.9994 trillion won in the first half of 2022. In terms of the number of investments, 547 new investments were made in the first half of 2023, down by more than half from 1,177 in the same period of 2022.

Even early-stage startups that were less affected in the first half of 2022 when the market was at the beginning of the current deep slump in venture startup investments are struggling to raise funds in 2023. In the first half of 2023, 443 were investments in the seed to Series A investment period, down 52 percent from the same period of 2022. The amount invested per deal also dropped from 2.93 billion won to 2.52 billion won. Mid- and late-stage investments saw an even bigger decline. Post-Series B investments dropped a whopping 76 percent from the first half of 2022.

Analysts say that no big deal was made in the Korean venture capital market. There were 74 investment rounds of 10 billion won or more in the first half of the year, down nearly 70 percent from 235 in the first half of 2022. They accounted for only 13 percent of all the investments, down from 20 percent in the first half of 2022.

No big deal is a worldwide trend. According to global market research firm CB Insights, the number of mega-rounds (investments of US$100 million or more) in the first quarter was down 80 percent from the same period of 2022.

This trend has been making investors more selective about startups, specifically investment has shrank for two different categories: platform companies that became less profitable while increasing size due to cutthroat competition, and the bio-tech sector with relatively larger risk. In the first half of 2022, the amount of investments in the bio-medical sector totaled 2.2179 trillion won, but in 2023 it fell by 80 percent to 439.5 billion won. The number of investments also fell by 70 percent. The amount of investments in the e-commerce sector also contracted by nearly 70 percent.

On the other hand, startups with manufacturing technology in the material, parts, and equipment sectors have fared well in the slump. The number of investments in semiconductors, displays, and 3D printers dropped by 38 percent to 29, but the amount of investments was about 68.45 billion won, which was 15 percent higher than in the first half of 2022. “The demand for artificial intelligence (AI) semiconductors grew, making the outlook for these sectors brighter. Therefore, the positive outlook positively affected investments in startups in these sectors,” said a VC industry insider.

Moreover, large investments were made in startups related to films, TV shows, and music, which are riding a K-content craze. In the first half of 2023, 25.29 billion won flowed into the sector, compared to 33.39 billion won in the first half of 2022.

Venture capital companies are also turning their eyes to the secondary fund market for interim returns. Secondary funds invest by buying shares from existing venture funds. This method has the advantage of buying stakes in startups at low prices. In addition, the government has decided to triple the size of secondary funds from 500 billion won to 1.5 trillion won. Funds of funds revived the secondary fund investment business after a decade.

Investors expect sentiment to gradually recover beginning from the second half of this year. Recently, new investments have been on the rise, showing a sign of an improvement. Monthly new investments have been on the uptick, with 82 in April, 87 in May, and 105 in June.

“Korea is expected to recover faster than other countries because it has strong competitive sectors such as semiconductors and is recognized as an alternative to a risk-ridden China,” said Park Ki-ho, CEO of LB Investment.
The government has decided to accelerate the exports of small and medium-sized enterprises (SMEs), create an ecosystem for startups and ventures aimed at the global market, and roll out policies for SMEs to make a global leap.

The Ministry of SMEs and Startups announced the “SME Promotion Comprehensive Plan (2023-2025)” on July 11. This is a legal plan established every three years under the SME Basic Act, which sets the direction for SME policies.

The Ministry plans to achieve an “SME and Venture 50+” vision through the SME export drive, support the leap to a global startup nation with comprehensive support for ventures and startups, and promote strategies to nurture entrepreneurial small business owners and enhance the safety net.

The SME and Venture 50+ vision aims for SMEs to account for over 50% of total company sales and over 50% of total exports. To this end, the Ministry will reorganize the Export Business Incubator (BI), a space for overseas expansion of SMEs and ventures operating in 12 countries, into the Global Business Center (GBC). It will also expand events that combine K-pop performances and export expos.

Moreover, the Ministry will continue to digitize and advance the manufacturing sites of SMEs. It will also strive to spread a culture of mutual growth between large and small enterprises. They plan to establish a pathway to connect various technology protection support policies scattered across departments in a customized manner.

The scale of the global fund that supports startup investment and overseas expansion will be expanded to 8.6 trillion won this year. They will create Korean-style innovation clusters that meet global standards for developing new products in advanced fields and for overseas expansion. They plan to jointly foster startups with global companies such as Google, Oracle, and Nvidia, promoting their entry into the global market.

They will support more than 2 trillion won to 1,000 “super-gap startups” that possess unique new industry technologies capable of entering the global market over the next five years. They are also considering creating a virtual startup ecosystem K-Starverse that provides various support in a virtual space. They will also newly establish an open innovation platform that connects startups and medium and large-sized enterprises that want to collaborate in a customized manner.

Seventeen of the top 100 global unicorns (privately held companies with an enterprise value of more than 1 trillion won) are unable to do business in Korea due to regulations.

The Korea Economic Research Institute of the Federation of Korean Industries said in its report titled “Global 100 Unicorn Companies and Ways to Ease Regulations on New Industries in Korea,” citing data from CB Insights, a U.S. analyst firm, that only 83 of the global top 100 unicorn companies can do business in Korea. Eight companies were found to be unable to do business and nine were found to be limited in doing business due to Korean regulations.

By sector, shared accommodation, car sharing, telemedicine, drones, robotaxis, fintech, and games were found to be the most likely areas where global unicorns would face business restrictions when entering Korea due to the country’s regulations.

The report analyzed that the Korean government should lay the foundation for Korean startups to grow through deregulation in line with the pace of technological development. Despite the Korean government’s efforts to ease regulations, including the introduction of a regulatory sandbox in 2019, tough regulations still apply to the sharing economy, new technologies, and new industries.

The report explained that while the promotion of corporate venture capital (CVC) is essential to facilitating private mergers and acquisitions, Korean conglomerates are restricted from investing in and acquiring startups through their CVC firms. In Korea, CVC firms of general holding companies are limited to 40 percent external investment when forming a fund. Due to these restrictions, Korean CVC investments account for only 23 percent of all VC investments in Korea.
A three-dimensional (3D) bioprinting technology capable of eliminating cancer cells using the function of immune cells has been developed for the first time in the world.

Through joint research with the Korea Institute of Machinery and Materials (President Sang Jin Park, hereinafter referred to as KIMM), the Korea Research Institute of Bioscience and Biotechnology (President Jang Seong Kim, hereinafter referred to as KRIBB), institute under the jurisdiction of the Ministry of Science and ICT, developed a 3D bioprinting technology using natural killer cells (NK cells)* as a new method of immunotherapy for treating cancer, and announced the outcome of the research on Biomaterials Research (IF: 11.3)**, a renowned journal.

* NK cell: Natural killer (NK) cell is a leukocyte that responds to the formation of viruses and tumor cells, and selectively kills cells that are harmful to the human body. NK cells remove distressed cells that have been infected internally, rather than viruses that have intruded from the outside.

** Title: NK cells encapsulated in micro/macropore-forming hydrogels via 3D bioprinting for tumor immunotherapy (date of publication: June 22, 2023)

Allowing the 3D-printed hydrogels to encapsulate NK cells helps to prevent the loss of NK cells and enables a majority of those cells to home in on the tumor cells. Pores form in the hydrogel, and NK cells that retain cell viability are released after a certain amount of time, which allows for the performance of immune functions.

Although NK cells are generally used for immunotherapy, the method of injecting NK cells via intravenous injection has not shown effective results in clinical trials on solid tumors*. This is because NK cells are incapable of retaining an appropriate level of viability and fail to target solid tumors.

* Solid tumors: Solid tumors refer to malignant tumors that are composed of vascular and connective tissues and have solidity and form.

On the other hand, by using the newly developed technology, NK cells can be injected into the hydrogel, printed, and then cultured in a 3D environment, which enhances the cell viability and activity of NK cells and enables those cells to confront cancer tissues.

Principal Researcher Su A Park of KIMM was quoted as saying, “This technology can help to significantly improve the functionality of NK cells that are used for cancer treatment. We expect to contribute to the treatment of cancer patients through this newly developed technology.”

This research was carried out with the support of the project for the “Development of multiscale-vasculature-laden skin composite tissue for evaluation of implantable nano-bio-sensors” sponsored by the Ministry of Science and ICT and the National Research Foundation of Korea, and the project for the “development of UnTACT systems for critical illnesses” conducted by the Convergence Research Center of the National Research Council of Science and Technology.●
Both domestic and global information technology (IT) giants are now joining pharmaceutical and biotech companies in utilizing artificial intelligence (AI) for drug development. Some AI drug development firms are currently in the process of going public through initial public offerings (IPOs).

According to sources in the industry on July 20, not only domestic IT giants such as LG and Kakao but also global tech companies like NVIDIA are participating in the competitive AI drug development market.

LG recently showcased its ambitious vision for AI-powered drug development, leveraging its colossal AI platform called EXAONE 2.0 during the LG AI Talk Concert 2023 held on July 19. LG AI researcher Han Se-hee said, “Using EXAONE Discovery can significantly reduce the number of synthesis trials from over 10,000 to a few dozen and shorten the research and development time from 40 months to 5 months.” Meanwhile, Kakao has been actively exploring opportunities in AI-driven healthcare since 2021 through its subsidiary KakaoBrain. The company strategically invested in the AI drug development company Galaxis and its in-house AI drug research team unveiled the protein structure prediction framework Solvent on July 11.

In the United States, global tech giants are actively investing in AI drug development using their advanced AI technologies. NVIDIA recently made a US$50 million (63.9 billion won) investment in the AI drug development firm Recursion. Following suit, AI drug development company Causaly successfully raised US$60 million in investment from ICONIQ Growth and other partners. Companies like Google DeepMind and Meta are also advancing their AI-based protein structure prediction programs.

As investment flows into the AI drug development sector, the value of AI drug development firms is on the rise. PharosBio, an AI drug development firm conducting clinical pipeline development through AI platforms, experienced a highly successful IPO with a whopping 851.2 billion won in application deposits from individual investors by July 18. The competition ratio for the IPO was 347.4 to 1, and the company is set to debut on the KOSDAQ on July 27. Oncocross has also initiated the technical evaluation process for its special listing since last month. Building on its previous success in passing the technical evaluation in 2021, the company aims to challenge an IPO with a focus on AI technology for the first time.

As the AI drug development field is gaining attention as a new growth driver for the pharmaceutical and biotech industry in the post-pandemic era, the related market is rapidly growing. According to MarketsandMarkets, the global AI drug development market is expected to grow at an annual rate of 45.7% from US$609.8 million in 2022 to US$4.035 billion in 2027. Korea Pharmaceutical and Bio-Pharma Manufacturers Association said that 52 companies are currently engaged in a total of 88 collaborative AI drug development projects in the country. As of May this year, 15 AI drug development companies have built a pipeline of 71 drug development candidates, 26 pre-clinical stage candidates, and 7 clinical stage candidates, totaling 104.

In the face of global competition in AI-driven drug development investments, industry insiders assert that strategic investments by South Korea’s K-Bio firms are crucial. At the meeting on July 19, the AI Drug Development Council predicts that the K-MELLODDY Project, an acceleration initiative based on joint learning for AI drug development promoted through public-private cooperation, will present a significant opportunity. Experts also highlight the need for larger-scale projects that integrate AI technologies into various stages of drug development, from discovery to pre-clinical and clinical evaluations.

Kim Yi-rang, chairman of the council, said, “The entry of large companies into the AI drug development market is a very desirable phenomenon. Government policy support that can attract private investments should be provided proactively amid intense competition among countries in AI drug development.”
The economic effects of the Korean Wave have reached 37 trillion won in the last five years, according to a study.

The Korea Economic Research Institute (KERI) said on July 10 that Korea enjoyed 37 trillion won (US$29 billion) in economic effects thanks to the Korean cultural wave from 2017 to 2021. In particular, the economic effects were driven mainly by items closely related to the Korean cultural wave such as Korean cosmetics products, music, movies, and TV shows.

KERI used statistical models and industry linkage analysis to estimate the economic effects of the Korean Wave over the last five years. It said that the 37 trillion won consisted of 30.5 trillion won in consumer goods exports and 6.5 trillion won in cultural content exports.

During the same period, added value generated by the Korean cultural wave was estimated to be 13.2 trillion won—a 9.9 trillion won increase in exports of consumer goods and a 3.3 trillion won increase in exports of cultural content.

Over the past five years, the average annual export growth rate of these Korean cultural wave-related items was 13.7 percent (15.7 percent for cultural content, 16.6 percent for cosmetics, and 7.8 percent for processed foods), dwarfing the average annual growth rate (5.4 percent) of total Korean exports over the same period.

The Korean cultural wave has also significantly contributed to job creation. The total number of jobs created by the Korean cultural wave over the period was estimated at 160,000. This is equivalent to a 19.6 percent increase in the total number of employed people in Korea in 2022.

KERI also noted that Korea’s cultural influence has skyrocketed due to a global Korean cultural wave craze that included BTS, which became the first non-English-speaking group to enter the top 10 of a global music chart for five consecutive years starting in 2018, and the Netflix show “Squid Game,” which ranked first in the viewership rankings of 94 countries in 2021. According to U.S. News and World Report and Wharton School’s Global Cultural Influence Rankings, Korean cultural influence jumped by 24 notches from 31st place in the world in 2017 to seventh in 2022.
Diversifying Export Destinations

Next-gen K-Beauty Leaders Drive ‘2nd Year of 10 Trillion Won Exports’

By Jasmine Choi

Propelled by the acceleration of the next generation of K-Beauty players, South Korea’s cosmetic exports have surpassed 10 trillion won for two consecutive years.

According to the Ministry of Food and Drug Safety on July 6, domestic cosmetic companies’ exports last year were 10.2751 trillion won (US$7.85225 billion), exceeding 10 trillion won for the second year in a row following 2021. Despite a 2.2% decrease compared to the previous year, industry insiders view this as a commendable performance, considering the impact of COVID-19 lockdowns in China, which represents the largest market share.

Consequently, South Korea has recorded 4th in the world and 1st in Asia for national cosmetic export performance, following France, the United States, and Germany. Last year’s cosmetics import amount was 1.7120 trillion won, maintaining a trade surplus.

The most notable point is the diversification of export countries. The number of countries to which Korea exports cosmetics increased from 153 in 2021 to 163 last year. Among the countries, the Philippines showed the highest growth rate of 44.4%, followed by Canada (40.8%), Kyrgyzstan (33.2%), Vietnam (23.4%), and Taiwan (21.1%). The increase in exports is interpreted as a result of growing global awareness and demand for K-Beauty due to the popularity of K-Content. On the contrary, cosmetics exports to China decreased by 26%. Consequently, China’s share of cosmetics exports also fell from 53.2% in 2021 to 45.4% last year.

The diversification of export countries was led by next-generation K-Beauty leaders. The total number of domestic cosmetics manufacturers last year was 11,119, surpassing 10,000 for the first time. This is approximately a five-fold increase compared to 1,895 in 2013. Clio, a color cosmetics company, and Nanda, operator of 3CE, have made it into the top 10 production rankings for the first time. Nanda is a domestic beauty company acquired by global beauty corporation L’Oréal. Clio’s Q1 sales in the U.S. and Southeast Asia grew by 73% and 107%, respectively, compared to the same period last year. An industry insider said, “The strength of small and medium-sized beauty brands lies in their ability to adjust production quickly in response to customer reactions, as well as their SNS marketing targeting foreign teens and 20-somethings.”

On the other hand, major corporations with a high dependence on China, such as LG Household & Health Care and Amorepacific, saw a significant drop in production performance. Notably, last year’s production value of LG Household & Health Care’s “The History of Whoo Cheongidan Radiant Rejuvenating Emulsion” decreased by 65% to 221.3 billion won. In response, Amorepacific has chosen Tilda Swinton and Blackpink member Rosé as models for Sulwhasoo, while LG Household & Health Care has introduced English notation for the new “Whoo Royal Regina” line, focusing on capturing the North American and European markets. The securities industry forecasts that the proportion of Amorepacific’s non-Chinese overseas operating profits will increase to more than 30% this year, and the sales proportion is expected to surpass China within 2-3 years.
The export value of our instant noodles has hit a record high this year, surpassing 400 million dollars in the first half. Orders are pouring in from not only Asia but also the United States and Europe.

The preliminary export value of instant noodles for the first half of this year is 442.62 million dollars, a 16.4% increase from a year ago, marking the highest ever export value for instant noodles. This increase is attributed to the growing market for convenient food consumed at home during the COVID-19 pandemic and the rising popularity of Korean culture leading to an increase in foreigners seeking our instant noodles.

The dish Jjapaguri, featured in the movie Parasite, garnered significant interest overseas, and the live broadcast of BTS member Jimin eating noodles became a major topic. Last month, an average of 1,700 people a day flocked to a Korean instant noodle event in Bangkok, Thailand, highlighting the popularity of the food.

The surge in exports led major noodle companies to record double-digit growth in first-quarter sales. Considering the production of overseas factories that are not included in the export performance, the scale of Korea-made instant noodles sold abroad is estimated to be around 2 trillion won per year.

A controversy has been brewing over the pricing policy of Five Guys, a U.S. hamburger brand that recently landed in Korea led by Hanwha Group’s Kim Dong-sun, head of strategy at Hanwha Galleria and the third son of Hanwha’s chairman.

FG Korea, a subsidiary of Hanwha Galleria and the operator of Five Guys, noted in a press conference just before the launch that prices are 13 percent cheaper at Five Guys stores in Korea than in the United States. However, after the opening of the first store in the Gangnam district of Seoul, some users of internet communities have said that the Five Guys store in Gangnam has priced its offerings higher than some stores in the United States.

As the controversy grew, FG Korea recently tried to clarify the issue. “All Five Guys stores in the United States are bound to have different prices,” the company said in a released statement. “This is because each state in the United States has different taxes and labor costs, and each franchisee can freely price their products. We did not intend to stretch the truth in the press conference. The U.S. pricing is based on a Five Guys store in Virginia where the hamburger company is headquartered and the pricing at the Five Guys store in Gangnam was set after many discussions with the U.S. headquarters.”

Aside from the controversy, Five Guys’ burgers are 2,000 to 3,000 won higher than Shake Shack’s premium burgers, which launched in Korea last year. The cheapest Five Guys burger costs 13,400 won while the Five Guys Bacon Cheese Burger costs 17,400 won in Korea. French fries are priced at 6,900 won for the smallest size (Little) and shakes cost 8,900 won. Industry insiders have criticized the pricing policy, saying that simply claiming that Five Guys burgers are cheaper in Korea than in the United States is not enough to attract customers in Korea.
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