Invest Korea

March 2023

World Expo 2030 Busan, Korea

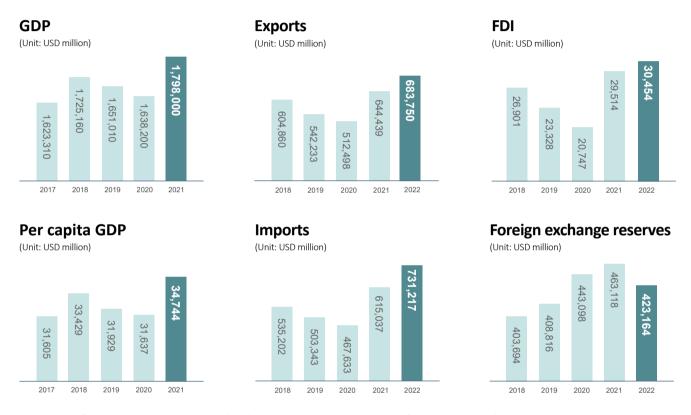
Transforming Our World, Navigating Toward a Better Future

The Korean Distribution & Logistics Industry, Diving Deep into Digital Transformation, Automation, and Robotization Tactracer, Innovation Innovated

Daebul National Industrial Complex, a Key Industrial Base of Korea's Southwestern Region

Economic Trends

Here's a look at Korea's major economic indicators that provide an overview of the country's recent economic developments.



Source: Bank of Korea (BOK), Korea International Trade Association (KITA), and Ministry of Trade, Industry and Energy (MOTIE)

January Economic Trends

In January 2023, the number of newly employed persons increased at a slower pace and inflation grew slightly. The economy added 411,000 jobs year-on-year in January 2023 and the unemployment rate fell by 0.5 percentage points from a year ago to 3.6 percent. Consumer prices rose at a slightly faster pace in January 2023 due to price increase factors at the beginning of the year, and the core inflation rose by 5.0 percent.

In January 2023, stock prices increased, Korean treasury yields fell, and the won strengthened due to China's reopening and market expectations for adjusting the pace of monetary tightening. In January 2023, declines in housing prices and prices of Jeonse were somewhat slower than the previous month.

Amid continued high inflation in Korea, economic growth slowed down, as indicated by the slowing pace of domestic demand recovery and continued downturn of exports and business sentiment. Global economic uncertainties continue to linger driven by downside risks including concerns about the monetary tightening stance and the prolonged Russia-Ukraine war amid favorable economic factors such as China's reopening and expectations for the global economy's soft landing.

Dutch chip firm ASM to invest USD 100 mln in S. Korea for facility expansion

S. Korea's industry ministry said on Feb. 2 it agreed with Dutch semiconductor equipment supplier ASM to boost cooperation for the firm's planned investment of USD 100 million to build a production factory and a research and development center in S. Korea.

The two sides signed a memorandum of understanding (MOU) in Seoul on the day, which calls for joint work for the smooth implementation of the corporate investment worth USD 100 million through 2025, ac-

cording to the Ministry of Trade, Industry and Energy.

The company is reviewing building a second factory that produces equipment for atomic layer deposition, a key process in chips manufacturing, and the expansion of its R&D center in S. Korea.

Currently, ASM is headquartered in the city of Hwaseong, Gyeonggi Province, some 40 kilometers south of Seoul.

S. Korea vows to meet 'global standard' for inclusion in WGBI

S. Korea will continue to revamp its market policies to attract more foreign investors to join the World Government Bond Index (WGBI) this year, the finance ministry said on Feb. 9.

The remark came after Second Vice Finance Minister Choi Sang-dae held a meeting with David Sol, the global head of London-based FTSE Russell, which operates the index on Feb. 8 (Britain time).

The WGBI is a broad index designed to measure the performance of government bond markets, including local currencies and sovereign bonds of major advanced nations. Asia's No. 4 economy made it to the "watchlist" in September 2022.

S. Korea has recently been making efforts to ease market regulations, including announcing its plan to abolish the existing mandatory registration policy for foreigners investing in listed securities.

The country also began exempting taxes on interest income and capital gains for non-residents and foreign companies' investment in Treasuries and monetary stabilization bonds.

Korea also announced it will extend the operating hours of its foreign exchange market—which currently runs for 6 1/2 hours from 9 a.m. to 3:30 p.m. —to 17 hours to close at 2 a.m. the day after, as early as the second half of 2024.

Trade & Commerce

Auto exports up 21.9 pct in Jan. on record sales of eco-friendly cars

S. Korea's car exports jumped 21.9 percent in January on-year, driven by record-high global sales of eco-friendly cars, data showed on Feb. 20.

The value of outbound shipments of automobiles came to USD 4.98 billion last month, up from 4.09 billion a year earlier, according to the data from the Ministry of Trade, Industry and Energy.

It is the highest figure for any January, the ministry noted. The previous record was set

in January 2013, when exports stood at USD 4.2 billion.

In terms of volume, a total of 200,825 vehicles were sold overseas last month, up 11.3 percent from the previous year, the data showed.

Strong demand for eco-friendly vehicles led the overall brisk car sales. The export value of eco-friendly cars jumped 42.3 percent onyear in January to an all-time monthly high of USD 1.79 billion.

Korean oil refiners to drive eco-friendly projects on record earnings

S. Korean oil refineries are expected to speed up environmentally-friendly and petrochemical business projects this year after their best-ever earnings performance last year amid oil market volatility.

The good performance was attributed to strong recovery in oil demand amid supply disruptions caused by a shortage of refinery facilities and geopolitical risks last year. According to market data, exports of petroleum products by the domestic oil refining industry reached a record USD 570.3 billion last year.

This year, the European Union's sanctions on Russian oil refinery products and China's reopening are expected to boost the industry's refining margins. A recovery in global jet fuel demand is also helpful to the industry. Oil refining margins are expected to remain strong this year as the Ukraine-Russia war continues.

Meanwhile, local oil refiners are expanding lucrative petrochemical business, while strengthening their eco-friendly business projects.

Online shopping hits fresh high in 2022 on travel demand

Online shopping in S. Korea reached a new record in 2022 following firm demand for travel services amid eased concerns over the pandemic, data showed on Feb 1.

The value of online shopping transactions stood at KRW 206.4 trillion (USD 167.3 billion) in 2022, up 10.4 percent from the previous year, according to the data from Statistics Korea.

It marked the largest number since the statistics agency began compiling related data in 2001.

Purchases made through smartphones, tablets and other mobile devices rose 13.4 percent on-year to KRW 153 trillion. Mobile shopping accounted for around 75 percent of the total value of online shopping.

Government & Policy

S. Korea plans to launch 6G network service in 2028

S. Korea plans to launch the sixth generation network service in 2028, two years earlier than its original schedule, in a bid to secure an early dominance of the future wireless frequencies, the ICT ministry said on Feb. 20.

Under the K-Network 2030 plan, the S. Korean government will advance the launch of the commercial service of 6G network by two years through securing world-class 6G technologies, innovating the software-based next-generation mobile network and strengthening the network supply chain, according to the Ministry of Science and ICT.

At the same time, the government will also encourage local companies to produce materials, parts and equipment for 6G technology in the country and develop an open RAN, or

open radio access network, which is compatible with any mobile device and enables mobile carriers and enterprises to offer flexible services.

The ministry said the advanced plan is aimed at helping the country retain the leading position in the global competition for future network infrastructure, following the 5G network race, to meet rising demand for higher speed and lower latency in wireless communications.

According to the German analysis firm IP-lytics, S. Korea has led 5G development with a high number of 5G patents, while previous 4G technology development was mostly dominated by U.S. and European companies.



Transforming Our World, Navigating Toward a Better Future



flagship event in the transitional year of 2030, the host country should have a global reach, taking the lead in international cooperation with its economic power, state-of-the-art technology, and cultural prowess. In June 2021, the Government of the Republic of Korea submitted a letter of candidature to the Bureau International des Expositions (BIE) to organize World Expo 2030 from May 1 to October 31, 2030 in the northern port district of Busan. Through the global fair, Korea is ready to answer the call of the times, under the proposed theme of "Transforming Our World, Navigating Toward a Better Future."



Rising from the ashes of war and poverty, South Korea has achieved great feats over the last 60 years, and is now the world's 10th largest economy and cultural powerhouse. From the "Miracle on the Han River" to its successful response to the Covid-19 pandemic, Korea has proved time and time again, its boundless capacity for innovation and growth. Through Expo 2030, Korea is keen to share its rich experience with the world and together, discover ways to adapt to the ever-changing landscape and face the challenges of tomorrow.

Korea has proved time and time again, its boundless capacity for innovation and growth.

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Busan: City of Resilience

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For centuries, the city of Busan has been a beacon pointing the way forward for Korea and its people.

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As Korea's foremost trade port, it's the beating heart of a nation that has undergone incredible economic transformation. It's a cultural center that honors and celebrates Korea's history, while always keeping its gaze fixed on a path to the future.

Busan has been a key trade port since the 15th century. During the Korean War, the city served as a temporary capital, hosting a massive influx of refugees that saw its population swell from 300,000 to over one million people. After the conflict, Busan became a major economic hub that helped drive Korea's rapid industrialization and cultural revival. Back then, it wasn't uncommon to see school classes held under awnings in the streets—a reflection of Busan's relentless dedication to education and enrichment for its people.

As post-war Korea continued to modernize and revitalize, Busan led the way as the nation's preeminent financial hub—expanding Korea's network of trade partners around the world and growing itself into the world's second largest transshipment hub as of 2021, handling close to 75% of Korea's domestic trade.

Today, Korea sits at the heart of international trade, with Busan operating as its No. 1 trade port. Korea's exports power the modern economy—semiconductors, electric vehicles and EV batteries, high-end consumer products, green energy, and biopharmaceuticals. This industrial and technological leadership means that Korea is spearheading the fourth industrial revolution and has gained valuable insight and experience in developing technological ecosystems and adopting modern policy frameworks around them.



What Makes Expo 2030 Busan Special?

Expo 2030 Busan aims to be the most wide-reaching, inclusive, and transformative World Expo by focusing on six key areas.

An Open Expo through the Metaverse

We'll create a metaverse platform for Expo 2030 that will allow anyone in the world to join at any time, from anywhere, to engage with the events. This will allow us to reach a bigger audience than ever before and bring the Expo closer to a truly inclusive global experience.

A New Technology Expo

Expo 2030 Busan will showcase technology that will truly benefit mankind by providing prosperity, convenience, and leisure. Our showcase booths will offer a peek into future-making tech like AI, holograms, IoT, and 6G.

A Carbon-Neutral

As Korea moves toward its 2050 Carbon Neutral Vision, and as the world aims to meet the UN's SDGs by 2030, Expo 2030 will play a part in showcasing our carbon-neutral future. The Expo site will be outfitted with green energy and eco-friendly vehicles, and a net-zero waterfront arboretum will be created using the site's waterfront area.

A Cultural Expo

Given World Expo's history of showcasing and celebrating cultures from around the world, we plan to engage global citizens with multiple events centered around K-culture, featuring a large cruise liner called the "World Cruise Tour" powered by eco-friendly fuel. Here, attendees will enjoy cultural exhibitions, concerts and performances.

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An Inclusive Expo

Expo 2030 Busan will expand opportunities for developing countries to take part and drive economic inclusivity. We'll deliver the largest-ever support package the BIE has ever seen including construction of pavilions and consulting on exhibitions, based on our analysis of aids provided during past World Expos. Moreover, an Expo trailer will be provided to facilitate the use of metaverse technology.

A Data-Archiving Expo

At Expo 2030 Busan, we'll initiate efforts to collect and preserve data on the BIE's history and values, as well as from previous Expos. Our Expo Big Data Silo will connect the past, present, and future of the Expo through data, and the metaverse will act as a data archive for permanent data preservation.

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In 2030, Busan will be a city for the world.

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Industry Trends

All Industries

In December 2022, production of all industries in Korea declined for the first time in two months as retail sales rebounded but equipment and construction investments decreased. Production of all industries for the year of 2022 posted the second-highest growth since 2011, and annual indicators of the expenditure-side also saw gains.

Monthly Industrial Activity Trends

Subject	All industries	Mining & manufacturing	Service	Retail sales	Equipment investment	Construction completed
Monthly Change (%)	Δ1.6	Δ2.9	Δ0.2	1.4	Δ7.1	Δ9.5

In December, production of mining and manufacturing industries decreased as less cars and electronic parts were produced whereas production of semiconductors rose by 4.9 percent and that of primary metals grew by 3.1 percent. Production of the service industry declined slightly due to the colder-than-average winter weather, the effect of the truckers' union strike and the sluggish housing market. Retail sales grew as durable goods dropped by 2.7 percent, but semi-durable goods grew by 11.1 percent and non-durable goods rose by 0.1 percent. Despite the declining consumption of durable goods caused by interest rate increases and supply chain disruptions, non-durable goods rose dramatically supported by the effect of cold weather and others. Equipment investment saw a decrease due to the decline of investments in all areas of machinery including semiconductor equipment, cars, and transportation equipment. Construction investments dropped due to cold weather, sluggish housing market, and worsened performance of construction and civil engineering projects affected by the completion of a number of semiconductor plants in November. The cycle variation value of the coincident composite index fell by 0.9 percentage points due to deteriorating production indicators, and the cycle variation value of the leading index decreased by 0.5 percentage points by reflecting weakening economic sentiment.

As exports and the manufacturing sector suffer from the global economic downturn and interest rate hikes, uncertainties in the economy are growing, burdened by the weak recovery of domestic consumption. On the production side, there are positive factors including the effect of China's reopening and resolution of supply chain disruptions. However, accumulating inventories, the downturn of the semiconductor industry, and the continued downward trend of exports may pose a burden. With regard to consumption and investment, positive factors include the growth of foreign tourists and favorable employment conditions that have fared unexpectedly well after 2022. However, there are concerns that the downturn of the housing market, continued high prices and uncertainties in the monetary policies of major countries may pose a risk.

Trends by Industry

Automobile

Exports of finished cars hit record-high while exports posted double-digit growth rate for six straight months

In November 2022, production achieved a double-digit year-on-year growth rate for five straight months backed by the easing of shortages in parts supply. Increased production and sales of finished cars pushed production up by 25.0 percent, while shipments and inventories also posted double-digit growth rates. Domestic demand in December rose by 4.7 percent from a year ago with the support of the release of new cars and increased supply. Exports also grew by 16.8 percent year-on-year in December to record a double-digit growth rate for six months in a row. EV exports surged by 46.5 percent, and exports of finished cars also hit record-high to rise by 28.3 percent.

General machinery

Upward trend of production continued, and exports declined further due to plunging exports to China

Production in November 2022 increased by 8.9 percent year-on-year despite declining exports. The growth in production continued for four months since August, supported by sound performance in domestic shipments, facilities investment and machinery orders. In comparison, imports in November saw a decrease of 1.6 percent from a year ago to stand at USD 2.651 billion while exports in November dropped by 3.4 percent year-on-year due to slow exports to China. However, exports to the United States and Europe maintained steady performance supported by the demand for machinery in newly-established local plants.

Shipbuilding

Production index continued recovery and exports and imports both up

In November 2022, cumulative global ship orders dropped by 20 percent year-on-year, but Korea's ship orders decreased by 4 percent year-on-year with the continuation of multiple contracts with Qatar for delivering

LNG carriers and container ships. In November, imports rose by 47.9 percent as imports of ships decreased but those of ship engines and parts and marine structures increased. Exports in December skyrocketed by 76.1 percent year-on-year with the delivery of ships ordered after the fourth quarter of 2020.

Steel

Production and exports both down due to disruptions in domestic production and weak global steel prices

In November 2022, steel production dropped by

23.9 percent year-on-year due to sluggish demand, the aftermath of typhoons and supply chain disruptions, but the decrease was reduced from the previous month. Imports in November fell by 13.1 percent from a year ago mostly due to declining unit prices. Moreover, exports in December decreased by 20.9 percent year-on-year as nations continue to focus their supply on domestic demand, export unit prices decline, and domestic production suffers a setback.



Oil refining

December performance hit record-high with high refining margins and growing export volume

Production in November 2022 increased by 3.1 percent year-on-year despite sluggish domestic demand as export volume grew. Exports in December rose by 22.7 percent from a year ago to reach USD 4.74 billion. The best results for the month of December was achieved sup-

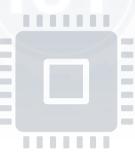


ported by the increased demand for alternative fuel in the winter season mainly in the EU and the widened global demand for aviation fuel and diesel. Moreover, refining margins sustained a solid flow by recording a month-onmonth growth.

Semiconductor

Downward trend of semiconductor exports continued

Semiconductor production and shipments in November 2022 fell by 15.0 percent and 16.3 percent, respectively. Exports in November dropped by 29.1 percent year-on-year to reach USD 9.06 billion, declining for five straight months after ending the long-



term rally. Cumulative semiconductor exports stood at USD 129.23 billion in 2022 to hit record-high results.

Wireless communication devices



Global economic downturn in 2022 caused exports to continue declining

Production in November 2022 grew by 4.5 percent year-onyear while shipments fell by 21.0 percent and inventories also grew by 17.6 percent. In comparison,

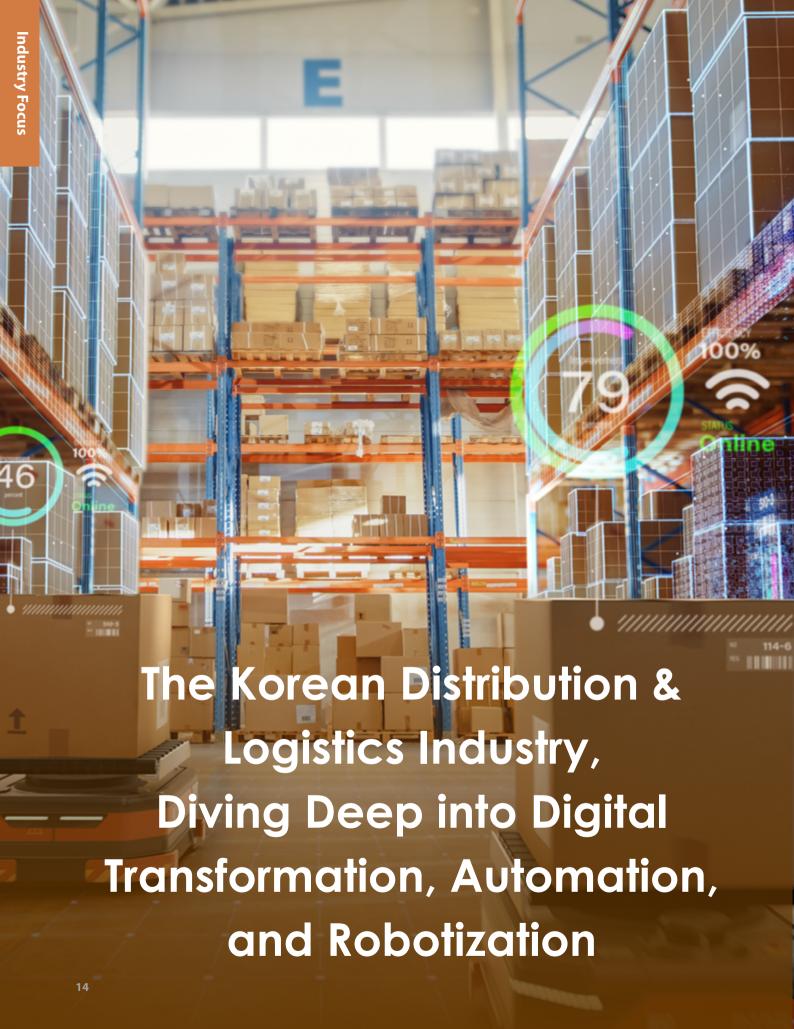
capacity utilization rate saw a dramatic increase of 62.3 percent. the number of telecommunication subscribers dropped slightly by 2.9 percent year-on-year and by 0.1 percent month-on-month. Imports in November nosedived by 37.9 percent year-on-year mostly in mobile phones, parts, and relay systems. Exports also fell dramatically by 33.1 percent year-on-year due to plunging exports to China, the EU and the US.

Display

Exports continued to decline due to sluggish demand and base effect

Production in November 2022 decreased by 30.4 percent from a year ago caused by the continuation of sluggish demands triggered by delayed production in China. Exports in December also fell slightly due to the effect of sluggish economy in the second half of 2022. In comparison, OLED exports rose by 5.3 percent compared to 2021 as the increased demand in the first half outweighed the effect of the sluggish economy in the second half.

*Please note that the latest data available in Statistics Korea are for the previous month in the case of exports and the month prior to the previous one for production.



Current Status of Korea's Distribution & Logistics Industry

[Distribution] Intensifying Big Blur¹ and Reshaping Market

With the prolonged COVID-19 pandemic, the spike in global energy prices due to the Ukraine-Russia war, and the US-China trade dispute, the supply chain has been disrupted and society as a whole has been experiencing drastic changes.

Across the distribution industry, a digital transformation is underway. The entire industry is faced with major changes caused by the Big Blur phenomenon, which is obscuring the boundaries not only between the distribution industry and other industries but also between buyers and sellers, and of the channels within the industry.

Coinciding with the Big Blur, offline distribution is changing its nature and evolving into the 'space business,' and the new business model, 'quick commerce,' is spreading as distribution, logistics, and tech industries are being combined, and the boundaries between online and offline are collapsing due to COVID-19. Also, the 'Local platform' is emerging as a result of the blurring of boundaries between distribution and IT, online and offline, and buyers and sellers.

Amid these changes, companies that seek to preoccupy dominant priorities in the e-commerce market strive to secure competitiveness and maximize economies of scale through M&A. At the same time, the distribution market is reshaped around deep-pocketed e-commerce companies.

M&A Cases of Major E-Commerce Companies

* SHINSEGAE ebay	 Emart, a retail arm of Shinsegae group, acquired an 80 percent stake in the open market business Ebay Korea, which operates G-market and Auction, for KRW 3.44 trillion in Nov. 2021 After the acquisition, the integration of SSG.com and G-market's paid membership program, Smile Club, created synergy
Qoolo TMON	 Qoo10, which has been developing its e-commerce business based in Southeast Asia, including Singapore, entered the Korean e-commerce market by acquiring TMON for KRW 280 billion in September 2022 (Qoo10 as a Korean company) External consortium's 100% stake in TIMON was exchanged for a stake in Qoo10's logistics subsidiary, 'Q Express'
yanolja †*interp∧rk	 After successfully turning the 2020 operating profit in the black, Yanolja acquired Interpark's e-commerce division, which focuses on ticketing and travel services, in a bid to establish a dominant position in the online travel market In October 2021, Yanolja acquired a 70 percent stake in a newly formed entity that spun off Interpark's e-commerce division for KRW 294 billion
danawa KOREACENTER	 In November 2022, the price comparison platform Danawa announced an M&A with KOREACENTER, which runs Enuri.com and the overseas direct purchase platform Malltale, to strengthen management efficiency, data commerce, and solution capabilities KOREACENTER holds a 51.3% stake in Danawa, and Danawa changed the name of its parent company, KOREACENTER, to "Connect Wave Corp." after the merger

Source: E-commerce Market Rearrangement and Corporate Response Strategies, Samjong KPMG (p.5, Dec. 14, 2022)

¹ The "Big Blur" refers to the phenomenon in which the boundaries between already existing things become ambiguous owing to drastic changes in society. The term originated from an English word, 'blur,' meaning something becomes unclear or less distinct. Initially, the term was used to describe a radically changing industrial ecosystem caused by innovative IT technologies such as Internet of Thing (IoT), Fintech and Artificial Intelligence (AI).

[Logistics Industry] Accelerating Automation and Robotization

The exponential growth of the e-commerce industry, and the increasing adoption of automation solutions at logistics sites according to advanced robotics and automation facilities, are the main factors driving the growth of the logistics automation and robotics market.

The rise of logistics automation and robotization requires the economic and social background factors as follows:

First, as with the disruptions in a division of labor structure by intergovernmental rows and the rapidly expanding reshoring movement, automatization and robotization have been adopted to solve the difficulty of securing skilled workers and addressing labor shortages.

Second, there is a move to prevent the lockdowns incurred by aggravating non-face-to-face situation and workers' infection in the COVID-19 pandemic.

Third, it has become more challenging to manage Gig Workers². Recently, Gig Workers have been voicing their demands for social insurance access. In other words, a flexible and resilient response to supply and demand, the

perk of the Gig Economy, has become hard to manage.

The fourth is the aging population, labor shortages, and rising labor costs. The staffing shortage has led business owners to realize the need for automation and robots in logistics as the price of automation and robots is expected to fall at a faster pace than the increase in wages, further expediting their spread.

Government Policy to Foster Distribution & Logistics Industry

In response to changes in the distribution environment, the government released a plan to rev up the digital distribution competitiveness for responding swiftly to the transition to contactless and online platforms. The plan would enable the spread of private-led innovation and ESG governance to create digital innovation and a sustainable growth ecosystem, and expand e-commerce's entry into overseas markets.

In the meantime, through the National Logistics Master Plan³, the government has announced and implemented six goals and five strategies to facilitate Korea's

Vision and Five Strategies for Digital Distribution Enhancement

Vision	Lead digital innovation in the distribution industry and create a sustainable growth ecosystem
Fundamental Directions	 Promote private-led innovation by establishing digital distribution infrastructure Spread the private-led ESG governance by creating sustainable industrial ecosystem Expand distributors' entry into overseas markets by ramping up global cooperation
Initiative Strategies	Build distribution data dam Fulfill innovative foundation for logistics delivery Set up distribution innovative ecosystem such as training talent and starting a business Form distribution environment for sustainable growth Foster globalization of e-commerce

Source: Plan to Strengthen Digital Distribution Competitiveness, Government of Korea (Mar. 4, 2021)

² Gig Worker means a person who has a short-term contract with an employer on an on-demand basis or does temporary work. As its labor intermediation is done on digital platforms, Gig Work is different from traditional part-time jobs.

³ The National Logistics Master Plan encompasses the entire logistics services by land, sea and air. The plan decides the matters necessary for logistics facilities and infrastructure, international logistics network, logistics industry, logistics technology and informatization, eco-friendly logistics and logistics security, and logistics training for people.

National Logistics Master Plan (2021-2030)

Vision	Take a leap forward as a leader in global logistics by fostering smart and digital innovation and creating a co-prospering ecosystem		
	Realize advancement and digitalization	Create human-oriented & quality jobs	
Goals	Make shared & affiliated convergence infrastructure	Obtain future readiness for industry	
	Realize sustainable environment	Secure global competitiveness	
Initiative Strategies	[Strategy 1] Establish advanced smart-based logistics system and promote digital transformation [Strategy 2] Build shared & affiliated infrastructure and a network for seamless logistics service [Strategy 3] Create human-oriented and quality jobs and generate high-quality logistics service from users' perspectives [Strategy 4] Bolster competitiveness in logistics and improve its metabolism to respond to new demand [Strategy 5] Make forays strategically into overseas markets in line with changing global economic landscape		

Source: The 5th National Logistics Master Plan, Ministry of Land, Infrastructure, and Transport, Ministry of Oceans and Fisheries (Jul. 27, 2021)

leap forward as a leading country in global logistics by fostering smart and digital innovation in the logistics industry and creating a co-prospering ecosystem.

Outlook for Korea's Distribution & Logistics Industry

The distribution industry, which has shown exponential growth thanks to the spread of contactless purchases after COVID-19, is predicted to have a tougher year on the back of worsening consumer sentiment from rising interest rates, deteriorating profitability due to fierce competition among companies, declining contactless purchases due to the return to normalcy, and possible regulation of online platforms.

Meanwhile, the logistics industry will be affected by the overall domestic industry, which is forecast to stagnate from bearing the brunt of high oil prices, high-interest rates, and high exchange rates, resulting in languish cargo volumes, while restrictions on carbon emission, ESG governance, and digital logistics transformation are likely to go into full force.

The rearrangement of the market and emergence of new businesses across the distribution and logistics industry are expected to continue as a consequence of changes in the external (geopolitical) and business environment and the intensification of the Big Blur. Moreover, the transition to digitalization, automation, and robotization of distribution and logistics sites is likely to progress rapidly because of the aging population, labor shortages, and enhanced work environment and safety under ESG governance.

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article are the author's own and

The opinions expressed in this article are the author's own and do not reflect the views of KOTRA.





Daebul National Industrial Complex, a Key Industrial Base of Korea's Southwestern Region

The Daebul National Industrial Complex was established to promote the development of Korea's underdeveloped southwest region and to leverage it as the frontline of entering the markets of China and Southeast Asia, as part of efforts to tackle the problem of national industrial complexes being concentrated in the southeastern region and the metropolitan area. A foreign investment zone and a free trade area are designated within the Complex to attract foreign investment. The Complex recorded a cumulative production of KRW 1.731 trillion and cumulative exports of USD 188.69 million, with 389 companies in operation as of the third quarter of 2022.

- · Title: Daebul National Industrial Complex
- · Location: Around Nabul-ri, Nanjeon-ri, and Yongyang-ri, Samho-eup, Yeongam-eup, Jeollanam-do

(Unit: m²)

Total area	Industrial facilities	Supporting facilities	Public facilities	Green area	Multi-purpose area
11,523,859	6,668,154	626,122	2,366,753	1,842,995	19,835

- Excellent location and wide-ranging infrastructure: Located near China's major ports including Shanghai and Qingdao, the Daebul National Industrial Complex serves as a bridgehead for entering the markets of Mainland China, Southeast Asia and the Pacific as it sits on the southernmost tip of the southwest coast. The construction of the infrastructure including Seohaean Expressway, KTX Honam Line, Muan International Airport, Daebul Port and Mokpo New Port nearby the Complex creates a dynamic transportation network covering the land, sea and air, with Mokpo Customs Office also operating within the Complex. The Complex also enjoys the advantage of readily sourcing materials including steel and petrochemical products from the heavy chemical bases of the nearby Gwangyangman Bay area.
- Aiming to transform itself into more than a shipbuilding base: As a waterfront industrial complex with affordable land and rental prices, the Daebul National Industrial Complex is equipped with optimal conditions to emerge as a shipbuilding equipment cluster. A renovation project is being implemented to transform the Complex into a renewable energy-based industrial complex, and the Complex is preparing to emerge as the center of the regional economy by transforming itself into a smart green industrial complex focused on eco-friendly ships and wind power equipment.

Source: (Text and photo) Korea Industrial Complex Corporation

Invest KOREA Market Place

Invest Korea Market Place (IKMP) is an online business matching platform available on Invest KOREA's website with information on approximately 300 Korean companies seeking to partner with foreign investors. This month, Invest Korea introduces some outstanding companies in Korea's logistics industry.





Mobile app



POS screen/ PG company interlinking

Investment Requirement		Company Profile		
Amount	USD 3 million	Patents and Certificates	4 trademarks registered, including the lowest price same- day delivery platform business of online food materials	
Investment Structure	Equity Investment	Financial Performance	(Sales in 2021) USD 5.96 million	

Investment Highlights

- Changes in the food material distribution market: With the development of the restaurant industry, the food material market continues to grow and is estimated to be worth KRW 55 trillion per year. Restaurants had no choice but to suffer various inconveniences and losses in time, energy, and quality by verbally ordering necessary food materials from wholesalers or visiting food material marts in person, and have been alienated from information on new products, quality, and prices. Therefore, there is an urgent need for a new platform that improves the distortion and irrationality of the current purchase and distribution structure.
- Comprehensive food material B2B online platform: The service provided by the company is a comprehensive food material B2B online platform that can be ordered through POS machines as well as APP and Web. In addition to supplying food materials, it provides services such as AI & big data-based information services, and business owner community services. Under the motto of local-based services, the company maximized the convenience of delivery, exchange, and return, and is preparing various services such as purchase cycle management according to purchase patterns and optimal purchase timing analysis according to price prediction.





Easy-to-deliver application via logistics solution



The vehicle itself functions as a logistics center

Investment Requirement		Company Profile		
Amount	USD 0.3 million	Patents and Certificates	Trademark applications filed	
Investment Structure	Equity Investment	Financial Performance	(Sales in 2021) USD 0.00 million	

Investment Highlights

- Last mile transport market: The domestic last mile transport market is estimated at around KRW 10 trillion, while traditional freight transport markets such as middle mile and courier in Korea are estimated at KRW 40 trillion. There are problems such as changes in unit prices of companies by region, fees incurred by subcontractors, and complicated system.
- Convenient order and reasonable unit price with differential delivery solution: The company offers a transportation solution of vehicle-to-vehicle linked delivery that identifies the operation information of a vehicle and delivers goods using the vehicle as a logistics warehouse and an application service that allows B2C consumers to easily transport and relay delivery through the company's logistics solution providing estimates and time calculations, even for small items. It presents an alternative to the increasing B2C 4-11 km intercity delivery market through delivery without a logistics warehouse. It will expand to autonomous multi-vehicle control solutions that can predict consumer acceptance, dispatch vehicles, and automatically change routes when converting to autonomous electric cargo vehicles.



Tactracer, Innovation Innovated

About the Company

Tactracer is a venture capital firm established in 2015 and currently operating in the Hanyang University ERICA Business Incubator in Ansan. Members include the CEO and four developers each covering key areas, and Tractracer's main products are Spider-Go, an inventory management robot, and Bumblebee, a next-generation food-serving robot whose development was launched this year. Tactracer applied for and registered patents for both products for the first time in the world.

Background

Existing inventory management methods have been performed based on manual work, such as with the human eye, barcodes or RFID scans. Therefore, regular inventory surveys were not available for warehouses with various items and a large warehouse, and the low reliability of survey information was also an issue. For the past decade, there have been attempts to use drones or self-driving robots, but these efforts remain at the level of pilot application due to technological limitations in applying them in the field. By complementing the shortcomings of existing technologies and learning from their advantages, Spider-Go was designed from the beginning as a product optimized for inventory management.

About the Product

Tactracer's products are all named after insects in line with the company's eco-green management. Inspired from the movements and appearance of spiders, Spider-Go moves through every corner of the warehouse/ store on rails and wires to track the inventory status, just like spiders move along their webs. Spider-Go reads various types of labels including barcodes, letters and RFID tags attached on products, boxes and pellets and transfers data in real-time along with the location information. Spider-Go is designed as a hardware platform capable of configuring different modules, allowing the installation of modules according to customer needs. Tactracer is currently focusing its R&D efforts on the 3D inventory image analyzing technology, which measures the volume of inventory with LiDAR sensors and individually calculates quantities with AI analysis, as the features are the ultimate goal of Spider-Go's scanning technology. The robot can be used on high racks of up to twenty meters as it moves along wires, and it is a full-fledged all-in-one device as it detects fire, monitors temperature and humidity and also serves as a security camera. Just by extending the rails, a single device can manage the inventory of an entire warehouse regardless of the warehouse size, while inventory information can be updated in real-time when more devices are installed. Considering that most warehouses only need an inventory survey on a daily basis, one or two devices will suffice.

Bumblebee is a food-serving robot whose development was launched this year. The next-generation food-serving robot was built by thoroughly analyzing the strengths and weaknesses of existing self-driving food-serving robots and completely resolving the existing problems. Bumblebee does not interfere with human traffic and detects and navigates to tables on its own. It can even deliver food to low wooden benches with raised spots, rooms and even outdoors. Bumblebee will be showcased in more detail through a video by mid-year.

Competitive Edge and Business Strategy

The biggest advantage of Spider-Go is that a single



Photo 1. Spider-Go

device can be installed regardless of the rack height or size, and it can also be leased on an affordable monthly rental fee. Despite the low cost, Spider-Go fulfils various functions including scanning the inventory of different locations, timely evaluating major disasters including fire, creating a cold chain using temperature and humidity sensors, and serving as a security camera to determine responsibility for theft or accidents. Different features can be combined according to the detection target and objective.

In order to minimize the initial costs of users and flexibly cope with malfunctioning issues that may arise after a product purchase, Spider-Go's business model is to only provide warehouse management services by leasing products to subscribers.

Charging a monthly rental fee of KRW 2 million per device, Tactracer rents Spider-Go to supply vendors designated for each country, who will then provide services to end users. Driving rail installation costs KRW 30,000 per meter, and the installation cost can also be paid over the lease period according to the installation space and the term of agreement.

Tactracer's competitiveness comes from the management's brilliant ideas and product planning capabilities, as well as the team members' agile and thorough execution. These are proven by the fact that all of Tactracer's products including Spider-Go and Bumblebee are drawing the attention and expectations of global players even before the product launch.

Future Plans

Korea

- · Harim
- MOU signing (https://www.venturesquare.net/870223, https://www.mk.co.kr/news/business/10577079)
- Participation in Yangjae Urban High-Tech Logistics
 Complex Project http://data.tactracer.com/article_harim.pdf
- Bumblebee to be introduced to ten of Harim restaurants in Pangyo
- · SK Shielders
- Requested for an exclusive service provision in Korea for Tactracer's Spider-Go and Bumblebee. Follow-up meeting with the president scheduled.
- Daeyoung Engineering (http://m.newstap.co.kr/news/ articleView.html?idxno=183299)
- Tier 1 vendor of Hanwha Precision Machinery. Parts management facility in Changwon, Gyeongnam installed with Spider-Go.
- Hanwha Precision Machinery reviewing to introduce Spider-Go across subsidiaries.
- Uji Electronics (https://comp.fnguide.com/SVO2/ASP/ SVD_Main.asp?gicode=A065680)
- Decision finalized to introduce Spider-Go in its domestic facilities in March. To be scaled up to the factory in Vietnam.

Overseas

- · Korean American Chamber of Commerce USA
- Investment and request for an exclusive distribution/



Photo 2. Bumblebee

service provision in the United States.

- · Aurora World, Inc.
- Requested the introduction of Spider-Go in its logis tics warehouse in California, US.

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* The opinions expressed in this article are the author's own and do not reflect the views of KOTRA.

New Legislations

Here's a brief look at Korea's newly proposed & enforced legislations.

Newly Proposed Legislations

Legislation	Ministry in Charge	Opinion Submission Due Date
Pre-Announcement of a Partial Amendment to the Regulation on Supervision of Banking Business	Financial Services Commission	March 3, 2023
Administrative Pre-Announcement of a Partial Amendment to the Reference Standards for Medical Devices	Ministry of Food and Drug Safety	March 23, 2023

Please submit your opinion on the newly proposed legislations and get more information on newly proposed legislations on the Foreign Investment Ombudsman website (https://ombudsman.kotra.or.kr/ob-en/bbs/i-2651/list.do).



Newly Enforced Legislations

Legislation	Category	Date of Enforcement	
Disaster Safety Industry Promotion Act	Act no. 18685, legislated January 4, 2022	January 5, 2023	
Enforcement Decree of the Construction Technology Promotion Act	Presidential Decree no. 33212, partially amended	January 6, 2023	

To see more newly enforced legislations in Korea, visit the Invest KOREA website (https://www.investkorea.org/ik-en/bbs/i-2715/list.do).



Korea 101: Tourism

Southeastern Region: Gyeongsangbuk-do, Gyeongsangnam-do, Busan Metropolitan City, Daegu Metropolitan City, Ulsan Metropolitan City

(1) Gyeongsangbuk-do

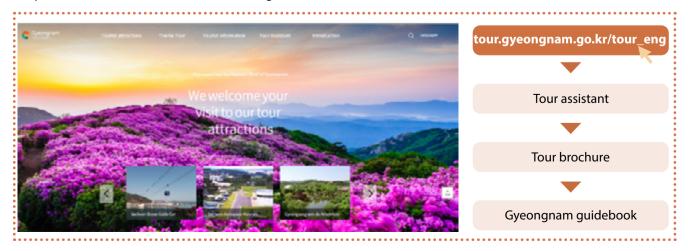
The largest province in the country, Gyeongsangbuk-do is home to large companies' industrial complexes and electronics complexes, contributing greatly to the local economy.

Gyeongsangbuk-do is also home to Gyeongju, a historical city that can be regarded as a global cultural heritage in its entirety. Be sure to visit the province and Gyeongju to truly understand the country's historical backgrounds.



(2) Gyeongsangnam-do

Gyeongsangnam-do has about 480 islands accounting for about 1.2 percent of the province's total area. The province is home to the country's flagship shipbuilding industry. Hapcheon is home to the Janggyeong Panjeon, or the Tripitaka Koreana Woodblocks in the Temple of Haeinsa slited as a UNESCO World Heritage site.



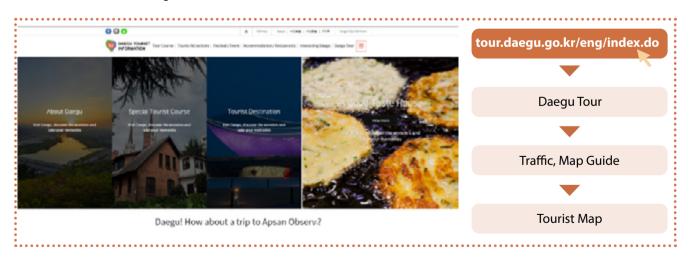
(3) Busan Metropolitan City

The most populous metropolitan city in Korea, Busan is the country's second biggest city and its largest international trade port. Offshore trade and logistics have developed in and around this city since a long time ago. It also hosts various cultural festivals and large-scale international events such as the Busan International Film Festival and Busan International Motor Show.



(4) Daegu Metropolitan City

An inland metropolitan city, Daegu is known for its hot summers, often recording the highest temperature in the country. The city offers Daegu City Tour with various themes at different days and times of the week for foreign tourists in particular. Please check the tour schedules at the following website.



If you have further questions please contact



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A foreign investment in the form of a long-term loan is not recorded as the amount of foreign investment on a certificate of registration of foreign-invested company. What is the reason?

Every month, Invest Korea provides answers to some frequently asked questions submitted by foreign-invested companies in Korea and potential investors.

Q.

A foreign investment in the form of a long-term loan is not recorded as the amount of foreign investment on a certificate of registration of foreign-invested company. What is the reason?



A foreign investment in the form of a long-term loan is recognized as foreign investment under Article 2 (1) 4 (b) of the Foreign Investment Promotion Act. But, because it does not constitute a foreign investment in the form of equity investment which is recorded on the certificate of registration of a foreign-invested company (Articles 2 (1) 4 (a), 2 (1) 4 (c), and 2 (1) 4 (e) of the same Act), it is not recorded as the amount of foreign investment on the certificate of registration.



Also, under Article 21 (1) of the Foreign Investment Promotion Act, foreign investments eligible for registration of a foreign-invested company are limited to the following: where a foreign investor has completed payment for the object of investment (new shares); where a foreign investor has completed the acquisition of stocks, etc. (existing shares); or where a foreign investor has completed contribution to a nonprofit organization.

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The amended M&A Review Guidelines ("Amendment") of the Korea Fair Trade Commission ("KFTC") took effect on December 30, 2022.

Burden on competition authorities and parties to M&A transactions have been reduced in the Amendment. The most notable changes in the Amendment concerning foreign companies are as follows:

Mergers

1. More specific criteria for simplified reviews for foreign M&A transactions with no impact in Korea

Under the past M&A Review Guidelines (amended on December 30, 2021), when a target company of an M&A transaction was a foreign company and the M&A transaction had no impact on the Korean market, a simplified review process applied. Compared to the initial 30-day review period under the ordinary review process, the review period under the simplified review process had been shortened to 15 days. The shortened review period was a groundbreaking development and had significantly benefited parties to foreign M&A transactions.

However, a problem with the past M&A Review Guidelines was that it did not provide clear criteria for determining whether the relevant foreign M&A transaction had an impact on the Korean market. As a result, companies were faced with difficulty in assessing which transaction qualified for simplified review process.

The Amendment has shed some light on the issue by providing clarification. The Amendment provides that, factors such as the nationality and business areas of the parties to the foreign M&A transactions, current or future planned business areas of the target company, and revenue of the target company generated in the Korean market must be considered in determining whether there is an impact on the Korean market. According to such criteria, if the target company is a foreign company and does not generate revenue in the Korean market at the time of the M&A transaction or plan to conduct business in the Korean market in the future, it will be subject to simplified review process.

In the past, some KFTC case handlers took a rigid position that a foreign M&A transaction could be subject to simplified review process only when either of the parties could not carry out business in Korea due to the nature of its business, or the business area was limited to a specific



country other than Korea under its articles of incorporation or a shareholders agreement. With the Amendment in effect, the KFTC will no longer take such strict approach in reviewing foreign M&A transactions.

2. Extended safe harbor for non-horizontal mergers

The past M&A Review Guidelines had a safe harbor provision for non-horizontal merger (i.e., vertical merger or conglomerate merger). Under the safe harbor provision, when the market concentration level and market shares of the parties to the M&A transaction in each of the relevant markets fell below a certain level (i.e., Herfindahl-Hirschman Index is less than 2,500 and the market shares of the parties are less than 25%), or when each of the parties was ranked no higher than fourth in each of the relevant markets, the M&A transaction was presumed not to be anticompetitive.

Under the past M&A Review Guidelines, the market concentration level tended to be higher than it should have been when there were competitors ranked first or second with high market shares. In such cases, the safe harbor provision did not apply. Such problems existed even when there were little anti-competitive concerns because the

parties to the M&A transaction had low market shares while the competitors ranked first and second were in a dominant market position.

In order to address the above issues, the Amendment added a provision on a presumption of no anticompetitive effect when each party's market share is less than 10% in each relevant market regardless of the market concentration.

In many cases of vertical mergers or conglomerate mergers between companies that are active in related markets, the safe harbor provision was not applied despite the parties' low market shares, and therefore, the review period was prolonged. The review period of such mergers is expected to be shortened under the Amendment.

3. Forecasts

Due to a sharp increase in the number of M&A transactions recently, the KFTC is making every effort to reduce their workload. The KFTC is reportedly considering various measures, such as raising the business combination

report threshold, expanding the scope of transactions subject to simplified review process, and dividing the review process into two stages to invest more resources for the indepth review. We believe there will be more visible changes to the merger control activities, and will continue providing updates.

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* The opinions expressed in this article are the author's own and do not reflect the views of KOTRA.



Invest KOREA's Services

Foreign Investment Ombudsman

The Office of Foreign Investment Ombudsman is an organization established in 1999 to provide close aftercare support and grievance resolution services for foreign-invested companies, and is dedicated to resolving any difficulties that foreign-invested companies face while doing business in Korea.

One-Stop Service for Foreign Investors

The Inbound Investment Consulting Department not only assists foreign investors and foreign-invested companies in the investment review and implementation stage, but also offers customized services to help foreign investors and their families get comfortably settled in Korea.

Invest KOREA Market Place (IKMP)

IKMP is a project aimed at discovering promising Korean SMEs seeking to attract foreign investment and matching them with foreign investors who have compatible needs. Projects looking for investment are posted on our website at www.investkorea.org.

Job Fair for Foreign-Invested Companies

IK organizes regular job fairs to help foreign-invested companies discover qualified local talent, and job seekers find employment through job consultations, on-site interviews, and more.



Invest KOREA Plaza (IKP)

Invest KOREA Plaza (IKP) is Korea's first facility dedicate to the incubation and investment of foreign investor. Each year, more than 40 foreign-invested companies rent out offices in the plaza and utilize IK's one-stop service.

IKP also provides serviced offices, business lounges, video conference rooms and a shower and sleeping lounge to maximize convenience for foreign investors.

IKP Offices for Lease

Foreign-invested companies

Companies planning to notify investment: Those who expect to report foreign direct investment of which the arrived amount is over USD 100,000 within 1 year of move-in.

IKP Occupancy Procedure

Counseling in occupancy \rightarrow Application for occupancy \rightarrow Screening committee evaluates application \rightarrow Result notification(result confirmed in 1-2 weeks) \rightarrow Conclusion of lease contract \rightarrow Move into IKP





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Publisher. YU Jeoung Yeol | Director General. Kim Byung Ho | Director. Myunglae Choi

Editor-in-chief. Grace Park | **Designer.** Yoojin Jang Printed by Samsin Munhwa Printing Co., Ltd.



