

ISSN 0067-3706

# 2021 Annual Report

2022. 3



BANK OF KOREA

## Bank of Korea Mid- and Long-term Strategic Plan (BOK 2030)

- **Vision**            **Bank of Korea**  
                          : Taking the lead in stabilizing and developing the national economy
- **Strategic**        **Agility**            Pursue Innovation in a Flexible and Swift Manner  
  **Directions**      **Collaboration**    Bolster Synergy Through Collaboration  
                          **Expertise**        Reinforce Policy and Research Capability

# BANK OF KOREA

## **2021** **Annual Report**

2022. 3

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**「 Bank of Korea Act 」**

Article 102 (Publication of the Annual Report)

- ① The Bank of Korea shall, within three months after the end of each fiscal year, submit to the government its annual report and publish it. This annual report shall outline its business status, its monetary policy and the government's foreign exchange policy, and analyze the economic and financial situation of the country during the fiscal year.
- ② The annual report in Paragraph(1) shall be approved by a resolution of the Monetary Policy Board.



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## **Purpose of Establishment of Bank of Korea**

- To contribute to the sound development of the national economy by pursuing price stability through the formulation and implementation of efficient monetary and credit policies
- To pay attention to financial stability in carrying out monetary and credit policies



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## Preface by the Governor



As the central bank responsible for implementing Korea's monetary and credit policies, the Bank of Korea has dedicated its utmost efforts to achieving price and financial stability, thereby contributing to the sound development of the national economy.

In 2021, the Korean economy rebounded more quickly than expected, bolstered by the global economic recovery and resumption of economic activities despite the impact of the prolonged COVID-19 pandemic. Exports and facilities investment remained favorable due to rising global demand, while consumption gradually emerged from its slump. Consumer price inflation accelerated as international prices of raw materials rose significantly and as inflationary pressure on the demand side increased in the process of the economic recovery. Meanwhile, the excessive concentration of funds into asset markets and the accumulation of household debt resulted in growing concerns over the aggravation of financial imbalances.

Taking these circumstances into consideration, the Bank of Korea gradually normalized its monetary policy stance, which had been exceptionally accommodative after the outbreak of the COVID-19 pandemic. The Bank raised its Base Rate by 0.50 percentage points across

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two occasions in August and November, and terminated its temporary financial support measures in phases, as they were deemed to have accomplished their intended purpose. However, it continued to provide support through loans to vulnerable sectors, including small businesses that continued to face funding difficulties.

Meanwhile, the Bank of Korea dedicated continuous efforts to ensure the faithful fulfillment of its duties related to financial stability, such as the comprehensive assessment of financial stability conditions in Korea and the suggestion of policy measures. It strived to issue early warnings on risk factors by evaluating the possibility of the proliferation of adverse effects caused by worsening financial imbalances stemming from the accumulation of household debt in the event of internal or external shocks. In addition, the Bank thoroughly examined the impact of changes in external conditions on domestic financial stability, such as increased global inflationary pressure and monetary policy normalization in major countries. The Bank made organization-wide efforts to devise a concerted response to climate change, which is regarded as a new type of risk to long-term growth and price stability, as well as to financial stability.

In addition, the Bank of Korea actively conducted research on the impacts of COVID-19 and changes in the economic environment after the crisis, and strengthened its research on institutional and technological aspects of central bank digital currencies (CBDCs) in order to anticipate any potential adoption of such a currency. The Bank expanded its social media content to promote external communications and to share the policies and businesses of the Bank with the public. In terms of the organization's internal management, the Bank enhanced its analytical and research capabilities to effectively respond to changes in the internal and external environment and undertook organizational reforms with the overall aim of enhancing the management of operational risks.

This annual report provides an analysis of the financial and economic conditions in Korea and is a systematic presentation of the operation and management conditions of the Bank of Korea during the year 2021. This year's report is the first to provide links to other reports prepared by the Bank, thereby providing readers with easier access to materials related to the contents in this report. It is our hope that this report will

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help to broaden the public's understanding of the Bank of Korea's roles and the situation facing the Korean economy.

March 2022  
Lee, Juyeol  
Governor  
Bank of Korea

A handwritten signature in black ink, reading "Juyeol Lee". The signature is written in a cursive, flowing style. The first name "Juyeol" is written in a larger, more prominent script, and the last name "Lee" is written in a smaller, simpler script to the right.

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## 2021 In Key Figures

### GDP Growth (real)



Despite the spread of COVID-19, GDP rose by 4.0%, centering on exports and consumption on the back of a global economic recovery and the resumption of economic activity.

### CPI Inflation



Consumer price inflation exceeded the inflation target of 2.0% as the growth margin was significantly widened by a mix of supply factors, such as a hike in oil prices, and of demand factors such as the economic recovery.

### Changes in Employment Figures



Employment conditions improved rapidly with a significant rise in the number of persons employed, as the country gradually recovered from the shock of the COVID-19 pandemic.

### Private Credit to Nominal GDP Ratio (as of year-end)



This ratio increased due to a rise in housing-related household loans, an increase in corporate demand for funds in line with the resurgence of COVID-19, and due to the government's financial support measures.

\* The smaller numbers below each figure refer to the respective figure for 2019, 2020 and 2021.

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## 2021 In Key Figures

### Base Rate (as of year-end)



**1%**  
1.25 ▶ 0.5 ▶ 1

The Bank of Korea increased the Base Rate by 0.50% to ensure the continued recovery of economic growth and stabilization of consumer price inflation at the target level over the medium-term horizon, while exercising caution against the risk of a buildup of financial imbalances.

### Ceiling of Bank Intermediated Lending Support Facility (as of year-end)



**43** trillion won  
25 ▶ 43 ▶ 43

The Bank of Korea extended the program operation period to support small businesses and SMEs that faced further financial difficulties due to COVID-19.

### Foreign Exchange Reserves (as of year-end)



**463.1** billion dollars  
408.8 ▶ 443.1 ▶ 463.1

The Bank of Korea manages Korea's national foreign exchange reserves, which are comprised of the country's external payment reserve assets of last resort, based on the principle of enhancing profitability while placing a top priority on securing safety and liquidity.

### Number of Subscribers and Followers on the Bank's Social Media Channels



**90,321** persons  
42,715 ▶ 51,886 ▶ 90,321

The Bank of Korea continued to strengthen its communication with the public through efforts such as the expansion of content to raise public understanding of the central bank's role and of financial economic knowledge.

\* The smaller numbers below each figure refer to the respective figure for 2019, 2020 and 2021.





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## Monetary Policy Board



<b>Chairman</b>	Lee, Juyeol
<b>Member</b>	Lim, Jiwon
<b>Member</b>	Cho, Yoon-Je
<b>Member</b>	Suh, Young Kyung
<b>Member</b>	Joo, Sangyong
<b>Member</b>	Lee, Seungheon
<b>Member</b>	Park, Ki Young



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## Guide to Using URLs and QR Codes for Related Materials

- ☐ In order to promote user convenience, the 2021 Annual Report contains URLs and QR codes that directly link to materials uploaded onto the Bank of Korea's website and YouTube channel.
- ☐ Users who read this report using a personal computer or tablet can access related material by clicking the URLs included in the report. For the printed version, users may access related material by scanning the QR codes at the end of each chapter or section with a smartphone.

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[www.bok.or.kr/123456789](http://www.bok.or.kr/123456789)

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# I

## Economic Trends

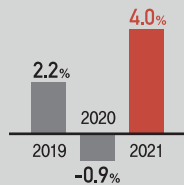
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# Major Economic Indicators in 2021

## Growth

**4.0%**

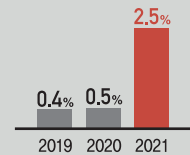
Real GDP Growth Rate



## Prices

**2.5%**

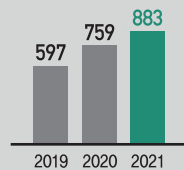
CPI Inflation



## Current Account

**883**

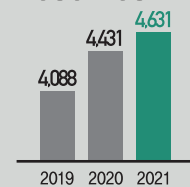
\$ hundred million  
(surplus)



## Foreign Exchange Reserves (as of year-end)

**4,631**

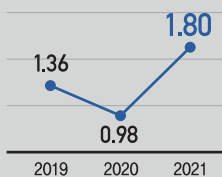
\$ hundred million



## Interest Rate (as of year-end)

**1.80%**

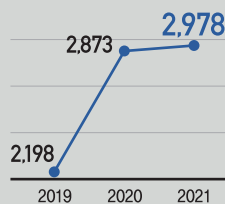
KTB(3y)



## Stock Index (as of year-end)

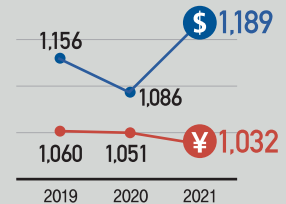
**2,978**

KOSPI



## Exchange Rate (as of year-end)

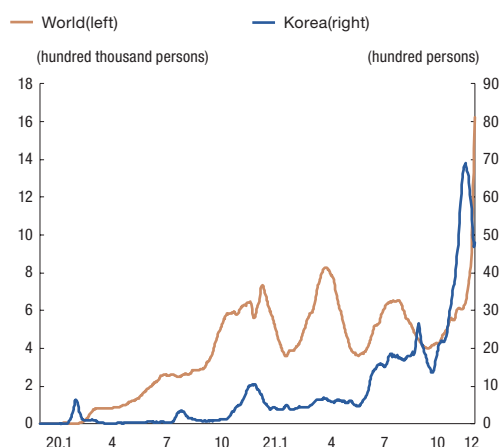
**\$ 1,189** ₩/\$  
**¥ 1,032** ₩/100¥



# 1. Real Economy<sup>1)</sup>

In 2021, the global economy was heavily impacted by the spread of COVID-19 and each country's measures to combat the virus, continuing the efforts from the previous year. The number of confirmed COVID-19 cases, which had slowed down due to the global expansion of vaccine rollouts, rose again around July due to the spread of the Delta variant. In response, each country endeavored to revitalize its economy by expanding vaccine distribution and shifting to a relaxed quarantine system. However, entering the end of the year, as the highly contagious Omicron variant became the predominant strain of COVID-19 and the number of confirmed cases increased at an accelerated pace, some nations partially tightened their quarantine measures again. In Korea, the Delta variant also started to spread widely in July, but after stricter social distancing measures were implemented and vaccinations were accelerated, the spread of the variant slowed down and quarantine measures were alleviated. At the end of the year, as the number of confirmed cases rose sharply with the resurgence of the Delta variant and the emergence of the Omicron variant, Korea held back its gradual return to normalcy and strengthened social distancing measures. However, the impact of the Omicron variant on the economic recovery was limited as its fatality rate was relatively lower than other variants.

Figure 1- 1. Number of Newly Confirmed COVID-19 Cases<sup>1)</sup>



Note: 1) Based on seven-day moving averages.

Source: Worldometer

## A. Global Economy

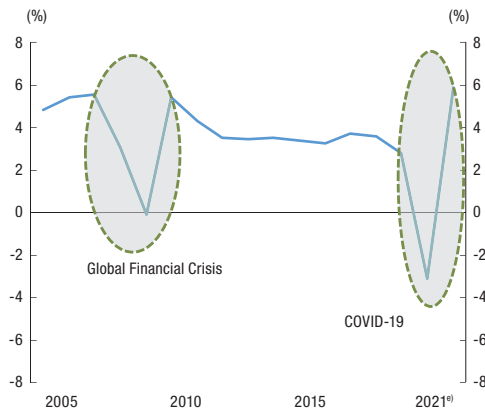
### Continued Trend of Recovery in the Global Economy

During 2021, the favorable trend of recovery in the global economy was sustained despite the spread of COVID-19 variants. The global GDP growth rate is estimated to be at the mid-to-upper-five-percent range, showing a faster rebound than the recovery period following the 2009 global financial crisis.<sup>2,3)</sup> This is due to the resumption of economic activity facilitated by the rapid increase in vaccinations, while expansionary fiscal and monetary policies in major countries led to an improvement in consumption and employment, and a significant increase in trade of goods.

1) A detailed explanation of economic trends during 2021 can be found in "I. Monetary Policy Operating Conditions of the Monetary Policy Report (Quarterly)" published by the Bank of Korea. [March 2021 issue](#), [June 2021 issue](#), [September 2021 issue](#), [December 2021 issue](#), and [March 2022 issue](#).

2) In 2010, after the global financial crisis, the global economy grew by 5.4 percent based on IMF statistics. The growth rate of the global economy in 2021 is estimated to be 5.9 percent by the IMF, 5.5 percent by the World Bank, and 5.6 percent by the OECD.

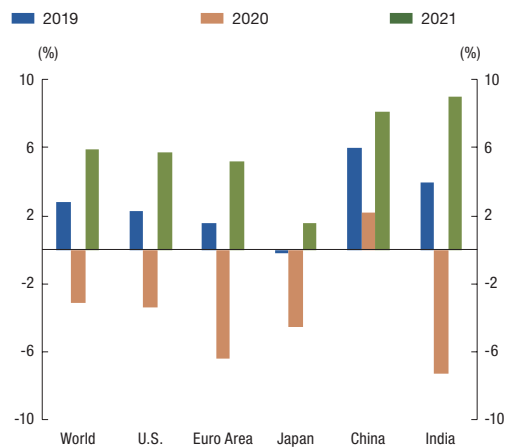
3) The growth rate of the global economy (in real terms, based on IMF statistics): 2.8 percent in 2019 → minus 3.1 percent in 2020 → 5.9 percent in 2021.

**Figure I - 2. Changes in Global Economic Growth**

Source: IMF

By country, the U.S. continued its solid growth trend as consumption and employment improved on the back of the country's normalization of economic activities and active policy support. In the euro area, the economy shrank due to strengthened containment measures stemming from the spread of COVID-19 earlier in the year, and then its growth rebounded rapidly, bolstered by accelerated vaccinations and by the execution of recovery funds. In the case of Japan, its economic recovery was tepid compared to other advanced countries due to the repeated implementation of stronger quarantine measures in line with developments in the COVID-19 pandemic, such as a declaration of a state of emergency. Among emerging countries, China showed robust growth in the first half, but its growth slowed down in the second half, in part due to a contraction in real estate market activity driven by the Evergrande Group is-

sue<sup>4)</sup> and power shortages. Meanwhile, in the case of other emerging market economies, India sustained its favorable upward trend since the second half with the mitigated spread of COVID-19 and continued high export growth. In ASEAN countries, economic recovery trends continued in the first half, and then sank following the spread of COVID-19, but later indicated the resumption of recovery.

**Figure I - 3. Growth Rate of Global Economy and Major Countries<sup>1)</sup>**

Note: 1) The growth rates for the global economy, euro area, Japan and India in 2021 are based on IMF estimates (Jan. 2022).

Sources: IMF, statistics agencies of individual countries

### Continued Recovery of Global Trade

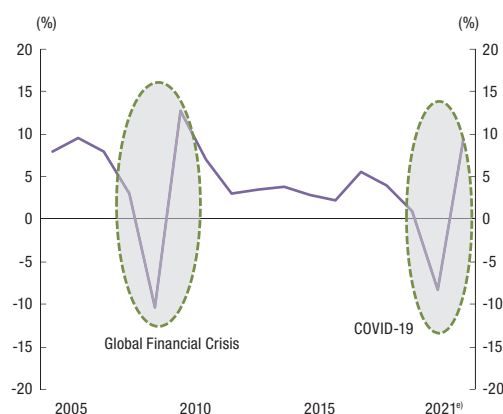
In 2021, global trade also sustained its recovery, mainly in the trade of goods.<sup>5)</sup> During the first half of the year, trade of goods exhibited a rapid recovery, boosted by improved consumption following the resumption of economic activities in advanced countries, but

4) The Evergrande Group, a Chinese real estate development company, failed on several occasions to make interest payments on dollar-denominated bonds and yuan-denominated bonds that were due between September and December 2021, and trading in shares of the Evergrande Group was halted on Hong Kong's stock exchange on Oct. 4, 2021.

5) Global trade growth (based on IMF statistics): 0.9 percent in 2019 → minus 8.2 percent in 2020 → 9.3 percent in 2021.

the recovery slowed somewhat in the second half, influenced by global supply chain disruptions. The services trade showed improvement as tourism services, which had contracted notably due to tightened immigration controls in 2020, recovered thanks to the alleviation of entry restrictions, while transportation services also improved in line with a rise in the trade of goods.

**Figure I - 4. Changes in Global Trade Growth<sup>1)</sup>**



Note: 1) Based on trade of goods and services.

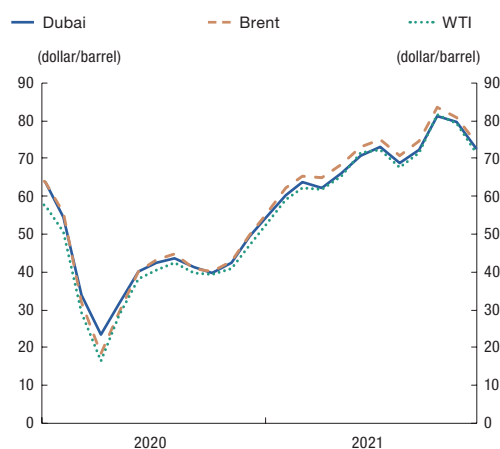
Source: IMF

### Continued Upward Trend of International Oil Prices

International oil prices (based on Dubai crude oil prices) sustained their overall rise, despite stagnating following the resurgence of the pandemic.<sup>6)</sup> In the first half of the year, international oil prices continued their upward trend amid sustained cooperation on oil

production cuts by OPEC+,<sup>7)</sup> along with the rapid recovery of crude oil demand, bolstered by expanded vaccine rollouts and massive fiscal spending in major countries. In August, the prices fell to the mid-60-dollar range due to mounting concerns over a slowdown in the recovery of crude oil demand driven by the spread of the Delta variant, but rose again to hit the mid-80-dollar range in November, the highest level since October 2014. Entering December, the prices fell back to the 60-dollar range due to heightened concerns over the spread of the Omicron variant, but rebounded to the mid-to-upper-70-dollar range at the end of the year as major oil production countries were slow in raising their oil outputs.<sup>8)</sup>

**Figure I - 5. International Oil Prices (monthly average)**



Sources: Bloomberg, Reuters

6) International oil prices rose from 42.2 dollars per barrel in 2020 to 69.0 dollars per barrel in 2021 on an annual average basis.

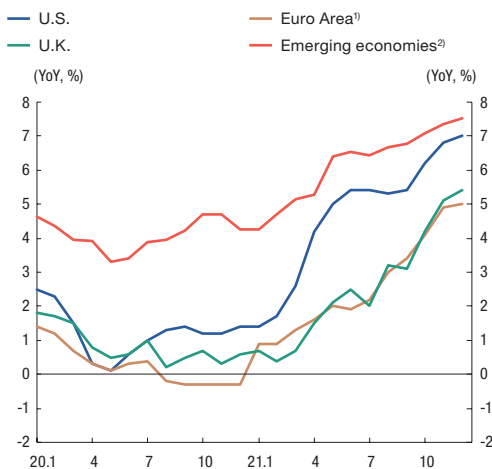
7) Separately from OPEC+'s continued cooperation on oil production cuts, Saudi Arabia additionally cut its oil output by 1 million barrels per day on average between February and April.

8) New investments by U.S. shale companies were delayed in the wake of the expansion of eco-friendly moves. In addition, OPEC+ members raised their oil outputs by 400,000 barrels per day on average after August, but their production increase was slower than the demand recovery.

## Expansion of Global Inflation

Throughout 2021, consumer prices in major advanced economies such as the U.S., the euro area, and the U.K. rose steeply owing to the continued upward trend of raw material prices, including international oil prices, combined with the effects of the resumption of economic activities and global supply bottlenecks. Also, consumer prices in major emerging countries such as Brazil and Russia showed a high up-trend, affected by a rise in food prices.

**Figure I - 6. CPI Inflation in Major Countries**



Notes: 1) Based on HICP.

2) Average of Brazil, Russia, India, and South Africa.

Sources: Statistics agencies of individual countries

## B. Domestic Economy

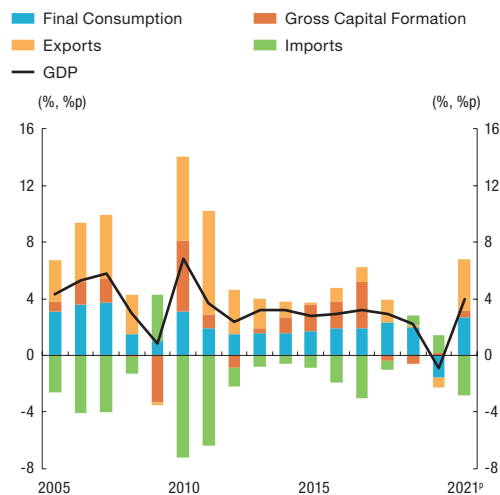
### (1) Economic Growth

#### Rapid Recovery of the Domestic Economy

In 2021, the Korean economy witnessed a GDP growth of 4.0 percent in real terms, led

by exports and consumption, on the back of the global economic recovery, the resumption of economic activities, and an expansionary economic policy despite the spread of COVID-19.<sup>9)</sup>

**Figure I - 7. GDP Growth and Contributions by Expenditure Item (in real terms)<sup>1)</sup>**



Note: 1) Preliminary figures for 2020 and 2021.

Source: Bank of Korea

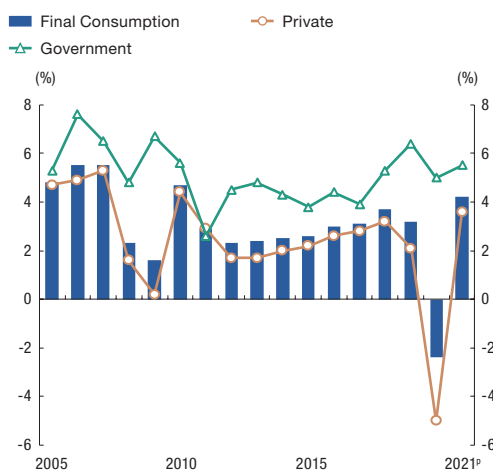
Examining the components of demand, overall consumption (final consumption expenditure) rose by 4.2 percent year-on-year as both private consumption and government consumption increased.<sup>10)</sup> Private consumption, which fell sharply (minus 5.0 percent) in 2020 in the wake of COVID-19, temporarily slowed in the third quarter following the resurgence of the pandemic, but rose by 3.6 percent from the previous year, buoyed by government support programs, expanded vaccinations, and the recovery of consumer sentiment.

9) GDP growth in real terms: 2.2 percent in 2019 → minus 0.9 percent in 2020 → 4.0 percent in 2021

10) Increase in final consumption expenditure in real terms: 3.2 percent in 2019 → minus 2.4 percent in 2020 → 4.2 percent in 2021

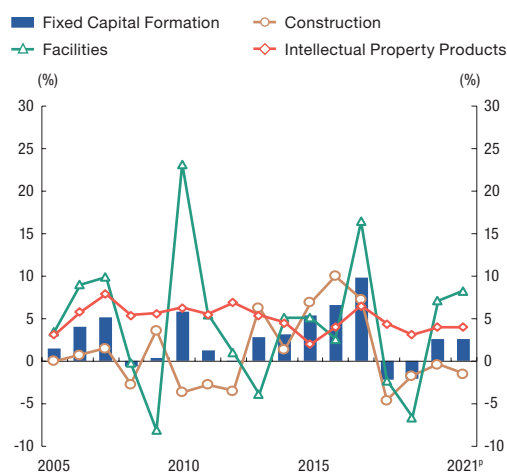


Figure I - 8. Final Consumption (in real terms)



Source: Bank of Korea

Figure I - 9. Fixed Capital Formation (in real terms)



Source: Bank of Korea

Fixed investment (gross fixed capital formation) increased by 2.6 percent year-on-year with a continued upward trend in facilities investment, although construction investment declined.<sup>11)</sup> Facilities investment climbed by 8.3 percent from the previous year with a focus on machinery, bolstered by the global economic recovery and an increase in non-face-to-face IT demand. However, transportation equipment investment decreased as automobile investment was restricted due to disruptions in the supply of automobile semiconductors. Construction investment declined by 1.5 percent from the previous year because of construction disruptions resulting from a surge in construction material prices. Investment in intellectual property products rose by 4.0 percent, led mainly by R&D.

Exports of goods and services in real terms increased by 9.9 percent from the previous year, led by goods.<sup>12)</sup> Exports of goods rose considerably in most items and areas, boosted chiefly by the global economic recovery and solid IT demand. Service exports also expanded thanks to the strong exports of transportation services in line with a rise in the global cargo volume.

Imports of goods and services in real terms increased by 8.5 percent year-on-year with a focus on goods, backed by the gradual recovery of the demand at home and abroad, although demand for tourism services was sluggish due to concerns over COVID-19.<sup>13)</sup>

11) Increase in gross fixed capital formation in real terms: minus 2.1 percent in 2019 → 2.6 percent in 2020 → 2.6 percent in 2021

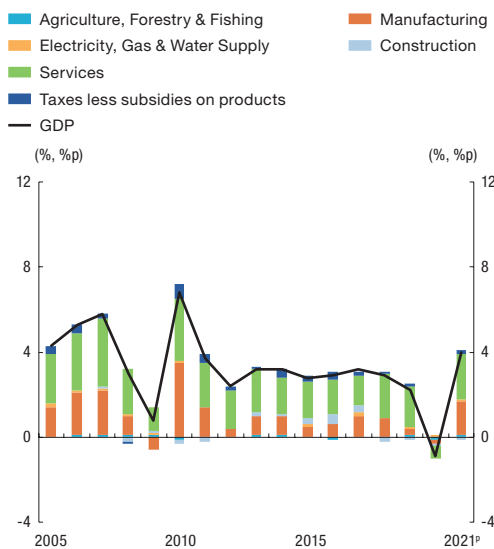
12) Increase in exports of goods and services in real terms: 0.2 percent in 2019 → minus 1.8 percent in 2020 → 9.9 percent in 2021

13) Increase in imports of goods and services in real terms: minus 1.9 percent in 2019 → minus 3.3 percent in 2020 → 8.5 percent in 2021

## Rise in Production Across the Manufacturing and Service Sectors

An overview of production activities across various sectors (based on GDP) in 2021 shows that production in the manufacturing sector rose on the back of strong exports. Production in the service sector showed a recovery trend, particularly in face-to-face services, due to the mitigation of quarantine measures,<sup>14)</sup> while production in the construction industry sustained its downward trend, which has continued since 2018.

**Figure I - 10. GDP Growth and Contributions by Economic Activity (in real terms)**



Source: Bank of Korea

Production in the manufacturing sector registered the highest growth (6.6 percent) since 2010 (13.6 percent) in the immediate aftermath of the financial crisis. Growth in the IT sector expanded greatly, led by semi-conductors. Non-IT sectors also shifted to a

rise, centered around chemical products and machinery equipment, boosted by a demand recovery at home and abroad and buoyant facility investment.

**Table I - 1. Growth Rate of Manufacturing by Sector**

	2008	2009	2010	2019	2020 <sup>p</sup>	2021 <sup>p</sup>
Manufacturing	3.5	-2.3	13.6	1.1	-0.9	6.6
Chemicals and Chemical Products	0.3	3.1	11.1	-0.9	0.7	6.1
Basic Metals	-8.0	-4.3	15.3	-0.9	-3.9	5.0
Fabricated Metal Products	-9.5	-9.9	9.2	-1.8	-7.0	-3.6
Computers, Electronics, and Optical Products	9.2	5.9	19.6	6.4	3.9	12.8
Machinery and Equipment	6.6	-7.9	23.5	-0.9	2.2	10.0
Transportation Equipment	10.5	-15.3	11.8	1.9	-9.1	5.3

Source: Bank of Korea

The service sector rose by 3.7 percent year-on-year as it recovered from its sluggishness in 2020. By sector, face-to-face services turned to an upward trend, buoyed by the easing of preventive measures and improvement in consumer sentiment, while finance and insurance, human health and social work sectors also sustained a favorable trend.

14) In December, uncertainty grew due to the spread of a new variant of COVID-19 and tightened quarantine policies, while production in face-to-face service sectors shrunk significantly.

**Table I - 2. Growth Rate of Services by Sector**

	2008	2009	2010	2019	2020 <sup>p</sup>	2021 <sup>p</sup>
Services	3.9	2.0	5.1	3.4	-1.0	3.7
Wholesale & Retail Trade, Accommodation and Food Services	1.6	-0.5	6.9	3.5	-5.7	3.3
Transportation & Storage	4.8	-4.5	13.1	1.7	-15.1	5.2
Finance & Insurance	6.1	5.8	3.0	3.4	9.1	6.1
Business Activities	5.8	1.6	7.7	2.6	-0.4	2.8
Human Health & Social Work	3.7	7.8	6.7	9.8	1.3	4.8

Source: Bank of Korea

Production in the construction sector decreased by 2.1 percent year-on-year, particularly in civil engineering and specialized construction. Production in the agriculture, forestry, and fishing sector shifted to a 2.7 percent increase, while the electricity, gas, and water supply sector posted a 4.9 percent rise.

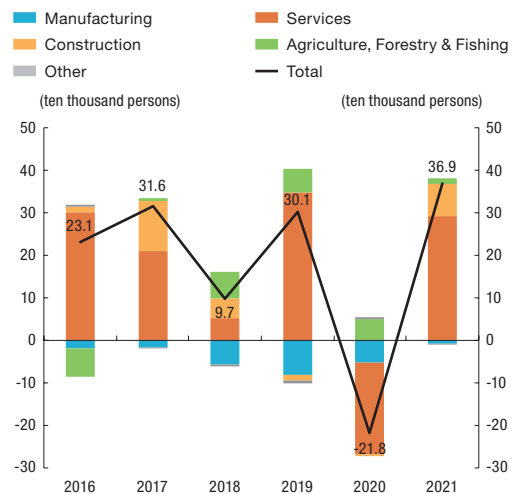
## (2) Employment and Wages

### Significant Increase in the Number of Persons Employed

Overall employment conditions improved rapidly, with the number of persons employed surging by 369,000 as the country gradually recovered from the shock of COVID-19.

By industry, the number of persons employed increased most in the service sector, mainly in transportation and warehousing, health and social work, information and communication industries, while those in face-to-face sectors remained sluggish, such as food services and accommodation, wholesale and retail trade, and personal services, where the negative effects of the pandemic were most

concentrated. The number of persons employed in the manufacturing sector slightly declined under the influence of global supply chain disruptions despite an improvement in the domestic economy and external conditions, while those in the construction sector shifted to an increase.

**Figure I - 11. Changes in Employment Figures by Industry**

Source: Statistics Korea

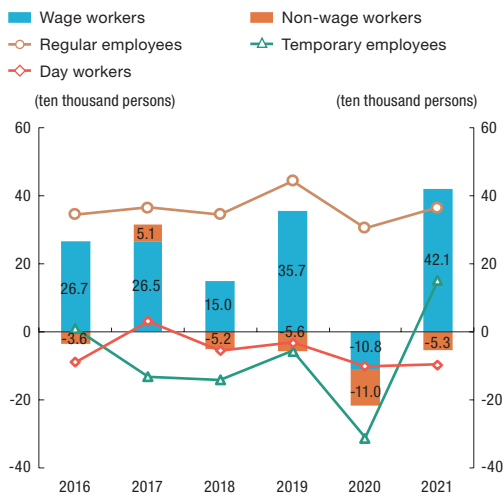
By employment status, the number of regular and temporary workers increased significantly, while that of day workers and non-wage workers sustained its downward trend.

By age, the number of employees aged 15 to 29 and employees aged 60 or older rose sharply, while those employed aged 30 to 59 fell at a significantly slower pace.

Boosted by a rise in the number of persons employed, the employment rate increased by 0.4 percentage points over the previous year. The total unemployment rate decreased by 0.3 percentage points, year-on-year, to 3.7 percent. The youth unemployment rate, covering people aged 15 to 29, fell from a year earlier by

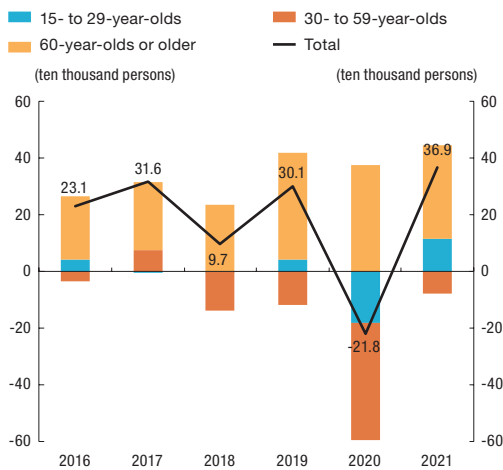
1.2 percentage points to reach 7.8 percent.

**Figure I - 12. Changes in Employment Figures by Employment Status**



Source: Statistics Korea

**Figure I - 13. Changes in Employment Figures by Age**

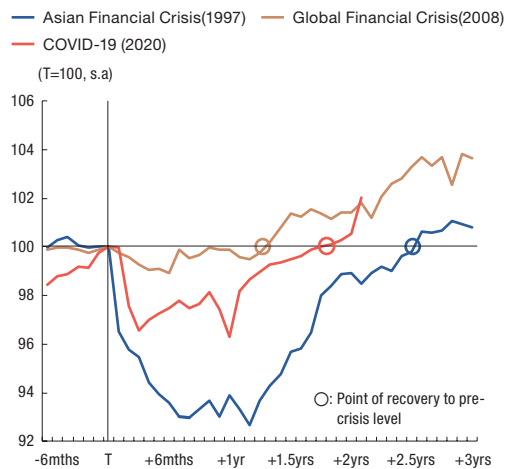


Source: Statistics Korea

The number of seasonally adjusted employed people declined sharply particularly in face-to-face service industries due to the spread of COVID-19 in 2020. It continued its upward trend from February 2021, then re-

covered to pre-pandemic levels (i.e., January 2020 levels) after 21 months in October 2021. Compared to previous economic crises, the COVID-19 crisis took a moderate period of time for the number of people employed to recover to pre-crisis levels, somewhere between the global financial crisis (16 months) and the Asian financial crisis (31 months).

**Figure I - 14. Employment Path in Each Crisis<sup>1)</sup>**



Note: 1) The starting points of the Asian Financial Crisis, the Global Financial Crisis and the COVID-19 pandemic were Dec. 1997, Nov. 2008, and Jan. 2020, respectively.

Source: Statistics Korea

Table I - 3. Employment-Related Indicators

(ten thousand persons, %)

	2016	2017	2018	2019	2020	2021
Economically Active Population	2,742	2,775	2,790	2,819	2,801	2,831
Change Rate	1.0	1.2	0.5	1.0	-0.6	1.1
Labor Force Participation Rate	62.9	63.2	63.1	63.3	62.5	62.8
Employed Persons	2,641	2,672	2,682	2,712	2,690	2,727
Change	23.1	31.6	9.7	30.1	-21.8	36.9
Unemployment Rate	3.7	3.7	3.8	3.8	4.0	3.7
(15- to 29-year-olds)	9.8	9.8	9.5	8.9	9.0	7.8
Employment Rate	60.6	60.8	60.7	60.9	60.1	60.5
(15- to 64-year-olds)	66.1	66.6	66.6	66.8	65.9	66.5

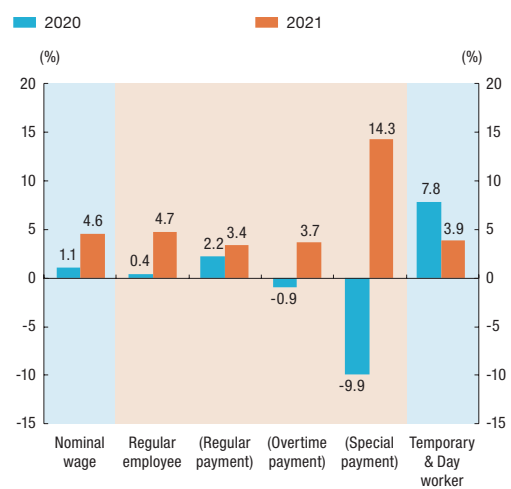
Source: Statistics Korea

### Rebound in Wage Growth

Nominal wage growth was 4.6 percent, a rebound to pre-COVID-19 levels (an average of 4.4 percent between 2018 and 2019) after recovering from its sluggishness in 2020 (1.1 percent). By employment status, regular workers saw a sharp increase in wage growth due to a drastic rise in special payments, driven by the economic recovery and improved corporate performance. Wage growth slowed among temporary and day workers as the number of low-wage workers who lost their job due to the impact of the pandemic increased again.

The growth rate for unit labor cost (non-farm basis) expanded as nominal hourly wage growth exceeded labor productivity growth.

Figure I - 15. Wage Growth by Employment Status



Source: Ministry of Employment and Labor

Table I - 4. Wage Indicators

(%)

	2016	2017	2018	2019	2020	2021
Nominal Wage <sup>1)</sup>	3.8	3.3	5.3	3.4	1.1	4.6
(Real Wage <sup>2)</sup> )	2.8	1.3	3.7	3.0	0.5	2.0
Nominal Hourly Wage <sup>3)</sup>	5.1	5.2	6.8	3.9	2.6	4.5
Labor Productivity <sup>4)</sup>	3.1	3.9	4.5	1.9	1.7	2.7
Unit Labor Costs <sup>5)</sup>	2.0	1.3	2.2	2.0	0.9	1.8

Notes: 1) Based on businesses employing at least one regular employee, non-farm basis.

2) Nominal wage/CPI.

3) Nominal wage/hours worked.

4) Real gross added value/(total employed persons x hours worked), non-farm basis.

5) Nominal hourly wage/labor productivity.

Sources: Ministry of Employment and Labor, Statistics Korea, Bank of Korea

### (3) Prices

#### Significant Expansion of CPI Inflation

In 2021, consumer price inflation was 2.5 percent (year-on-year), growing at a considerably faster rate than that of the previous year (0.5 percent), surpassed the inflation target

(2.0 percent). In particular, during the fourth quarter, it increased by 3.5 percent from the previous year, recording the highest figure in 10 years since the fourth quarter of 2011 (4.0 percent).

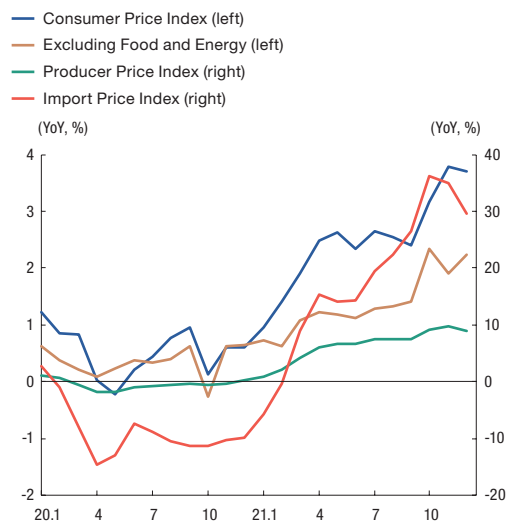
The acceleration of consumer price inflation was mainly attributable to supply-side factors, such as oil prices and agricultural and livestock products, as well as gradually rising inflationary pressure on the demand side accompanying the economic recovery.

By item, the prices of agricultural, livestock, and fisheries products rose by 8.7 percent year-on-year as the prices of agricultural products increased substantially in the first half of the year due to the cold spell and the prices of livestock products exhibited a steep rise resulting from the spread of avian influenza, increased household demand, and supply disruptions of imported meat. Among industrial products, the prices of petroleum products shifted upward significantly owing to the sustained upward trend of international oil prices (minus 7.3 percent → 15.2 percent), while the prices of other industrial products excluding petroleum products continued a slow rising trend at the zero percent range following last year, and prices increased further into the fourth quarter, centered around processed food and durable goods, affected chiefly by an increase in raw material prices and global supply bottlenecks. Electricity, gas, and water charges dropped at a faster pace in the first half owing to a decrease in electricity charges at the beginning of the year, but shifted upward in the second half due to the dissipation of the effect of the urban gas charge reduction measure that was implemented in July of the previous year, followed by a moderate expansion of the upward trend into the fourth quarter because of a hike in electricity

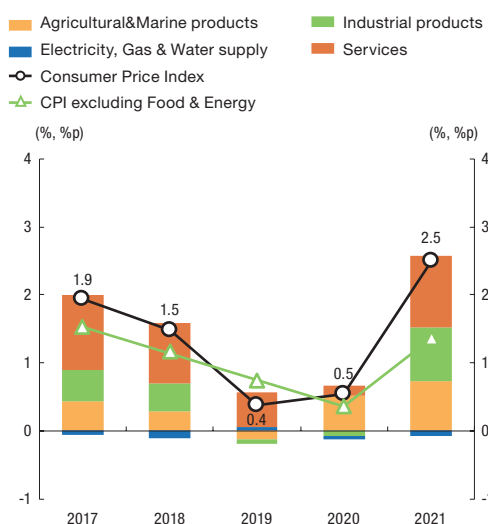
charges. Overall service price inflation registered 2.0 percent, significantly higher than the 0.3 percent of the previous year. Amid the sustained upward trend of housing rental rates, the prices of public services turned to an upward trend (minus 1.9 percent → 1.0 percent), and the increase in prices for personal services expanded by a large margin, particularly in dining out costs, in line with the economic recovery (1.2 percent → 2.6 percent).

In 2021, the growth of core inflation (CPI, excluding food and energy) stood at 1.4 percent, which was considerably higher than the 0.4 percent of the previous year, owing to the accelerating increase in prices for personal services, including dining out costs. In particular, as underlying inflation showed a steady upward trend amid the gradual spread of inflationary pressure to core inflation items, core inflation rose by 2.2 percent in the fourth quarter, year-on-year, exceeding 2 percent for the first time since 2015.

Figure I- 16. Major Inflation Indexes



Sources: Statistics Korea, Bank of Korea

**Figure I - 17. CPI Inflation and Contribution by Item**

Source: Statistics Korea

### Expansion of the Margin of Increase in Housing Sale Prices and Leasehold Deposit Prices

Housing sale prices sustained their high growth rates until the margin of increase slowed somewhat after November, affected by tightened lending regulations and rising lending rates, but their growth rate throughout the year registered 9.9 percent, significantly higher than the previous year's level. By region, the growth rate in the second half in the Seoul metropolitan area exceeded the first half, while that in the rest of the country contracted slightly in the second half.

Leasehold deposit prices and monthly housing rental prices also saw their growth expand in the second half, registering high growth rates throughout the year.

**Table I - 5. Rate of Increase in Housing Prices and Housing Leasehold Deposits (compared to the last survey dates of the previous periods)**

	(%)						
	2005-2009	2010-2014	2015-2019	2020	2021		
	Average	Average	Average		Year	1st Half	2nd Half
Housing Prices	5.7	1.6	1.3	5.4	9.9	4.7	4.6
Seoul Metropolitan Area	9.3	-1.0	2.4	6.5	12.8	5.9	6.1
Non-Seoul Metropolitan Area	1.8	4.6	0.3	4.3	7.4	3.6	3.3
Housing Leasehold Deposits	4.0	5.6	0.7	4.6	6.5	3.0	3.2
Housing Monthly Rent Prices	..	..	-0.6 <sup>1)</sup>	1.1	2.6	1.0	1.6

Note: 1) Average of 2016 to 2019 (starting in June 2015).

Source: Korea Real Estate Board

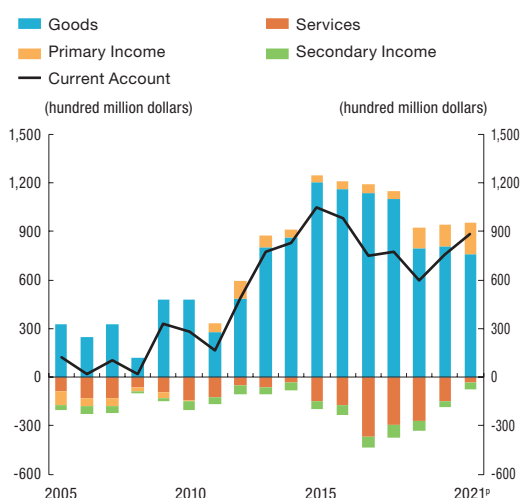
### (4) Current Account

#### Expansion of the Current Account Surplus

The current account in 2021 widened to a surplus of 88.3 billion dollars compared to the previous year as the services account and the primary income account improved, although the goods account saw its surplus narrow.<sup>15)</sup> The goods account surplus somewhat shrank as exports sustained their buoyancy thanks to the global economic recovery and a rise in export unit prices, but imports increased further, affected by a surge in raw material prices and a recovery in domestic demand. On the other hand, the services account deficit narrowed owing to the robust transport account, supported by a surge in overseas freight rates, while the primary income account surplus expanded, led by an increase in dividend income through direct overseas investments and securities investments.

15) Current account: 59.7 billion dollars in 2019 → 75.9 billion dollars in 2020 → 88.3 billion dollars in 2021

Figure I - 18. Current Account



### Strong Exports of Goods

Exports on a customs clearance basis hit a record high of 644.4 billion dollars,<sup>16)</sup> up 25.7 percent from the previous year. Exports of most key items were favorable, and IT products saw their exports expand greatly, particularly in semiconductors, computers, and wireless communication equipment, which was bolstered by the global economic recovery and the spread of the digital economy. In terms of non-IT sectors, exports of chemical products, petroleum products, and steel rose substantially on the back of increased imports in major countries and rising raw material prices. Exports of automobiles<sup>17)</sup> also increased, centered around eco-friendly vehicles.

Table I - 6. Exports by Major Item

	2020		2021	
	% Change	% Share of total	% Change	% Share of total
IT Products	3.8	<35.8>	24.0	<35.3>
Semiconductors	5.4	<19.9>	28.1	<20.2>
Wireless Communication Equipment	-6.4	<2.6>	22.8	<2.5>
Display Panels	-12.2	<3.5>	18.9	<3.3>
Computers	46.0	<2.5>	27.0	<2.6>
Non-IT Products	-10.0	<64.2>	26.7	<64.7>
Automobiles	-14.1	<10.9>	23.8	<10.8>
Petroleum Products	-40.2	<4.8>	57.0	<6.0>
Chemical Products	-1.2	<13.0>	38.1	<14.3>
Machinery Products	-8.1	<10.1>	10.5	<8.9>
Ships	-2.0	<3.7>	16.9	<3.5>
Total Exports <sup>1)</sup>	-5.5	[5,125]	25.7	[6,444]

Note: 1) Figures in square brackets are the total amount of exports (in hundred millions of USD).

Sources: Korea International Trade Association, Korea Customs Service

### Sharp Rise in Imports of Goods

Imports on a customs-clearance basis increased by 31.5 percent over the previous year to a total value of 615.1 billion dollars. Imports of raw materials surged, led mainly by crude oil, gas, and steel products, due to a rise in raw material prices, while imports of capital goods and consumer goods also increased, centered around semiconductors/semiconductor equipment and durable consumer goods, respectively.

16) Previous record-high exports reached 604.9 billion dollars in 2018.

17) By quarter, production and exports of completed automobiles were sluggish in the second and third quarters of 2021 as global supply shortages of semiconductors for automobiles deepened. Daily average exports of automobiles (unit: 100 million dollars): 1.84 in the first quarter of 2021 → 1.73 in the second quarter → 1.59 in the third quarter → 1.80 in the fourth quarter.



Table I - 7. Imports by Major Item

	2020		2021	
	%	% Share	%	% Share
	Change	of total	Change	of total
Crude Material & Fuel	-18.8	<44.1>	46.7	<49.2>
Capital Goods	7.4	<37.9>	20.2	<34.6>
Electric-Electronic Machinery	4.6	<22.5>	21.5	<20.7>
Machinery-Precision Equipment	14.2	<12.4>	20.9	<11.4>
(Semiconductor Manufacturing Equipment)	62.8	<3.7>	50.1	<4.3>
Consumer goods	-0.4	<18.0>	18.3	<16.2>
Total Imports <sup>1)</sup>	-7.1	[4,676]	31.5	[6,151]

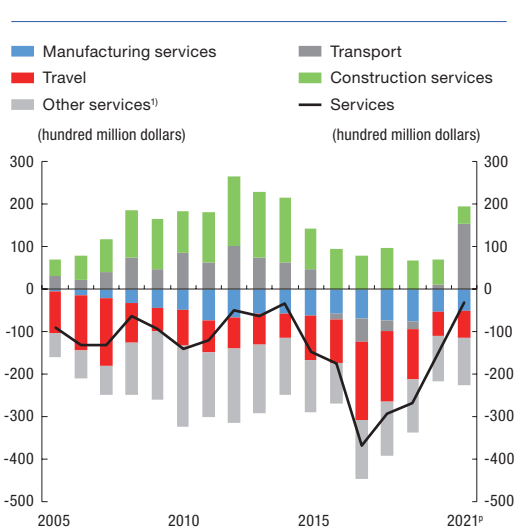
Note: 1) Figures in square brackets are the total amount of imports (in hundred millions of USD).

Sources: Korea International Trade Association, Korea Customs Service

### Decrease in the Services Account Deficit

The margin of the services account deficit was the smallest since 2001,<sup>18)</sup> registering a deficit of 3.1 billion dollars.<sup>19)</sup> This is mainly attributable to the fact that the transport account improved greatly, boosted by rising freight rates stemming from global supply bottlenecks and the expansion of national shipping line vessels, while the travel account deficit was also considerably below the pre-pandemic level due to decreased overseas travel by domestic residents. The deficit in the manufacturing services account was similar to that of the previous year.

Figure I - 19. Services Account



Note: 1) Total of other services accounts including other business services, telecommunications, computer, and information services.

Source: Bank of Korea

### (5) Regional Economic Trends<sup>20)</sup>

Regarding production activities by region, manufacturing production increased in most regions, particularly in the Seoul metropolitan area, boosted by an upswing in semiconductors. It also increased in other regions as well, led by petrochemicals and automobiles. Services production grew in all regions, centered around wholesale and retail trade, and transport and warehousing, thanks to a rise in non-face-to-face consumption.

In terms of domestic demand trends,<sup>21)</sup> retail sales increased in all regions despite the spread of COVID-19, buoyed by improvement in consumer sentiment in line with acceler-

18) In 2001, the services account recorded a deficit of minus 2.3 billion dollars.

19) Services account: minus 26.8 billion dollars in 2019 → minus 14.7 billion dollars in 2020 → minus 3.1 billion dollars in 2021

20) A detailed explanation of regional economic trends in 2021 can be found in the "Regional Economic Report (Quarterly)" published by the Bank of Korea. [March 2021 issue](#), [June 2021 issue](#), [September 2021 issue](#), and [December 2021 issue](#).

21) Trends in regional consumption, facilities investment, and construction investment are estimated using retail sales indexes, the facilities investment BSI, and the total area under new construction.

ated vaccinations and policies implemented by central and local governments to stimulate consumption. The Business Survey Index (BSI) for facilities investment continued to improve owing to robust business conditions in the manufacturing industry, but still fell short of the reference value of 100 in all regions. In terms of construction investment, the total area of new construction projects increased in most regions, mainly led by residential buildings, while the Seoul metropolitan area also saw an increase, backed by new constructions of commercial buildings. In contrast, the Honam region saw a decline due to the sluggish construction of commercial and industrial buildings.

Exports exhibited double digit growth in all regions, bolstered by the base effect in 2020, economic recovery in major countries, and solid IT demand. The Seoul metropolitan area and the Chungcheong region witnessed an increase in exports, centered on semiconductors, displays, and petrochemicals. In addition, export growth was led by petrochemicals, oil refineries, and automobiles in the Dongnam region, and by an upswing in petrochemicals, oil refineries, and steels in the Honam region.

In terms of employment conditions, the number of persons employed increased in most regions, particularly in the business, personal and public service sectors. Unemployment rates dropped in most regions compared to 2020.

Consumer prices recorded a higher growth rate compared to 2020 across all regions due to a rise in the prices of petroleum products, agricultural, livestock and fisheries products, and industrial products resulting from a hike in the cost of raw materials, as well as an increase in service prices led chiefly by personal services.

Despite the government's plan to expand the housing supply and the increase seen in household lending rates, housing sale prices rose at a faster pace in most regions and shifted to an increase in the Jeju region as well. However, approaching the year end, expectations of price increases weakened, mainly due to tightened lending regulations, which resulted in a slowdown in the upward trend. Leasehold deposit prices sustained their upward trend across all regions, affected by supply-demand imbalances and relocations arising from reconstruction projects.

**Table I - 8. Major Indicators by Region<sup>1)</sup>**

	Seoul Metro politan	Dong nam	Chung cheong	Honam	Dae gyeong	Gang won	Jeju
<b>Production</b>							
Manufacturing Production Index <sup>2)</sup>	13.2	1.3	3.5	9.0	5.8	-0.6	0.8
Services production index <sup>2)</sup>	5.1	3.2	3.0	2.7	3.4	4.0	2.6
<b>Demand</b>							
Retail Sales Index <sup>2)</sup>	3.1	2.0	1.6	1.4	2.0	1.1	3.8
Facilities Investment BSI (Base=100)	99	93	97	98	93	95	97
Area of New Construction <sup>2)</sup>	6.6	27.6	20.1	-4.6	3.4	22.6	24.8
Exports <sup>3)</sup>	22.4	26.2	25.8	43.9	20.4	34.9	45.8
<b>Employment</b>							
Changes in Number of Employed Persons <sup>4)</sup>	24.8	1.5	3.4	2.8	2.5	1.5	0.5
Unemployment Rate	4.1	3.7	2.6	2.6	3.5	3.6	3.1
<b>Prices</b>							
CPI <sup>2)</sup>	2.4	2.5	2.7	2.6	2.7	2.8	2.6
Housing Sales Prices <sup>5)</sup>	12.8	8.5	8.5	5.3	6.3	6.4	6.6
Housing Leasehold Deposit Prices <sup>5)</sup>	7.7	6.2	7.3	3.3	4.6	4.3	5.3

Notes: 1) The Seoul metropolitan region includes Seoul, Incheon, and Gyeonggi-do. The Dongnam region includes Busan, Ulsan, and Gyeongsangnam-do. The Daegyeong region includes Daegu and Gyeongsangbuk-do.

2) Year-on-year rates of change.

3) Customs-clearance basis, year-on-year rates of change.

4) Year-on-year change (ten thousand persons).

5) Rates of change compared with last months of previous year.

Sources: Bank of Korea, Statistics Korea, Ministry of Land, Infrastructure and Transport, Korea Customs Service, Korea Real Estate Board

## 2. Financial and Foreign Exchange Markets

### A. International Financial Markets

#### A Rise in Long-Term Interest Rates

In 2021, long-term interest rates on a 10-year U.S. Treasury bond yield basis rose considerably, influenced by concerns over rising inflation and the U.S. Federal Reserve's moves toward monetary policy normalization. In chronological order, due to expectations of an economic recovery and the outlook for rising inflation in the wake of the implementation of economic stimulus packages and the announcement of large-scale infrastructure investment in the U.S.,<sup>22)</sup> they increased dramatically during the first quarter of the year,<sup>23)</sup> and then in the second quarter, they fell sharply on the effects of the expectations of a continued accommodative monetary policy by the U.S. Federal Reserve<sup>24)</sup> and the spread

of the Delta variant of COVID-19. Entering August, however, they turned to an upward trend again due to the U.S. Federal Reserve's looming tapering of its asset purchases<sup>25)</sup> and concerns over rising inflation stemming from global supply bottlenecks. They fluctuated during the period from November to the end of the year, with the parallel concerns over the Omicron variant and the forecast of early normalization of monetary policy by the U.S. Federal Reserve.<sup>26)</sup> Germany's long-term interest rates showed fluctuations, similar to U.S. long-term rates, and later rose significantly owing to the moves toward monetary policy normalization by the European Central Bank (ECB).<sup>27)</sup>

While the Emerging Markets Bond Index Plus (EMBI+) spread fluctuated, mainly affected by long-term interest rates in advanced countries, the extent of the rise widened from November onward due to concerns over the Omicron variant and financial instability in some vulnerable emerging markets.<sup>28)</sup>

22) The Biden administration implemented the sixth American Rescue Plan amounting to 1.9 trillion dollars (March 11), and shortly thereafter unveiled the American Jobs Plan amounting to 2.2 trillion dollars (March 31).

23) On March 31, the 10-year U.S. Treasury bond yield reached a record high for the year of 1.74 percent.

24) The U.S. Federal Reserve announced at the April FOMC meeting that it would maintain the accommodative stance of monetary policy until substantial further progress has been made toward the Committee's maximum employment and price stability goals, while during a news conference, Federal Reserve Chairman Jerome Powell stated that, "it is not time yet," to begin discussing tapering asset purchases (April 28).

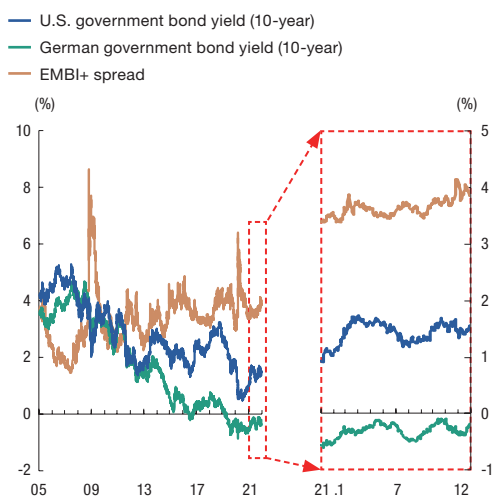
25) According to the minutes of the July FOMC meeting that were disclosed on Aug. 18, 2021, most FOMC members mentioned that, if economic conditions develop as expected, it could be appropriate to start slowing the pace of asset purchases in 2021.

26) At the November FOMC meeting, the U.S. Federal Reserve decided to reduce its asset purchases by 15 billion dollars per month, and at the December meeting, it further decided to expand the reduction in its asset purchases (from 15 billion dollars to 30 billion dollars per month). Also at that meeting, all participants predicted that the policy rate would increase during 2022 (nine out of 18 participants expected an interest rate hike at the September meeting) (Dec. 15).

27) In the December Monetary Policy Committee meeting, the ECB decided to end the Pandemic Emergency Purchase Programme (PEPP) in March 2022, as scheduled, while adjusting its inflation forecast upward for 2021-2023 (Dec. 16).

28) Turkey continued to cut its policy rate from September (by 500bp between September and December) despite the high inflation (CPI inflation [percentage, year-on-year]: 14.6 in December 2020 → 19.3 in August 2021 → 36.1 in December 2021), which resulted in a plunge in its currency's value (depreciation against the U.S. dollar by 37.2 percent between September and December), and expanded concerns over external soundness.

**Figure I - 20. Major International Interest Rates and EMBI+ Spread**



Sources: Bloomberg, JP Morgan

**Table I - 9. Major International Interest Rates and Risk Premiums (as of period-end)**

	2021				
	2020	I	II	III	IV
<b>Government Bond Yield (10-year)</b>					
(U.S.)	0.91	1.74	1.47	1.49	1.51
(Germany)	-0.57	-0.29	-0.21	-0.20	-0.18
<b>Risk premium</b>					
(U.S. corporate bond spread) <sup>1)</sup>	222	203	189	188	186
(EMEs CDS premium) <sup>2)</sup>	150	186	156	182	187
(EMEs spread) <sup>3)</sup>	338	370	356	373	386

Notes: 1) Yield on 10-year corporate bonds(Baa).

2) Weighted average of 18 EMEs' CDS premiums, by Markit.

3) JP Morgan EMBI+ (Emerging Markets Bond Index Plus).

Sources: Bloomberg, JP Morgan, Markit

## Differentiated Stock Price Movements Between Advanced and Emerging Countries

The U.S. Dow Jones Industrial Average rose sharply in the first quarter owing to the announcements of large-scale stimulus measures, while the strengthened expectations of economic recovery stemming from accelerated COVID-19 vaccinations and solid earnings reports by companies<sup>29)</sup> allowed it to continue its upward trend.<sup>30)</sup> However, it temporarily fell by a considerable margin due to concerns over the early normalization of monetary policy by the U.S. Federal Reserve in September<sup>31)</sup> and the Omicron variant in late November. The STOXX Europe 600 Index also showed a broadly similar trend to that of the U.S. stock market and jumped by 22.2 percent from the end of the previous year.

On the other hand, the MSCI Emerging Markets Index dropped by 4.6 percent compared to the end of the previous year, mainly influenced by weakened investor sentiment following the U.S. Federal Reserve's moves toward monetary policy normalization, a possible delay in economic recovery stemming from the low COVID-19 vaccine distribution rate and the resurgence of the pandemic, and potential defaults by Chinese real estate companies.<sup>32)</sup>

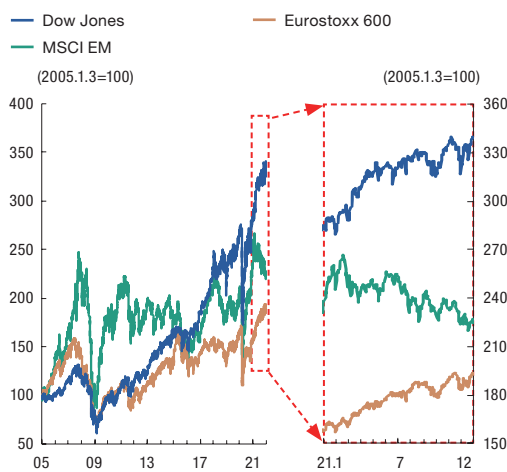
29) Among S&P 500 companies that had released their corporate earnings for the first, second, and third quarters 2021, 87 percent, 86 percent, and 82 percent, respectively, saw their earnings surpassing their market expectations.

30) The U.S. Dow hit 36,338 at the end of 2021, up 18.7 percent compared to the previous year (30,606).

31) At the September FOMC meeting, the number of participants who predicted a policy rate hike in 2022 and 2023 increased by two (7 → 9) and by four (13 → 17), respectively, compared to at the time of the June meeting (September 22).

32) Since June, concerns have been spread over the potential default of China's Evergrande Group and other real estate development companies owing to lower profitability driven by worsening business conditions, such as a tightening of real estate regulations and deteriorated financial soundness resulting from excessive borrowing. On December 7, major credit rating agencies downgraded Evergrande Group to a default rating.

**Figure I - 21. Stock Indexes in Major Advanced Economies & MSCI Emerging Markets Index**



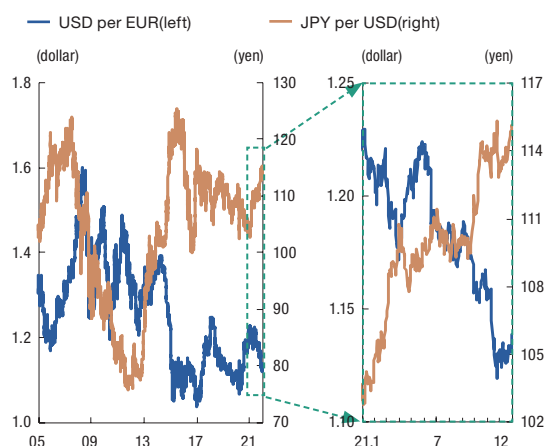
Source: Bloomberg

## U.S. Dollar Strengthens Against Euro and Yen

The U.S. dollar strengthened against the euro in 2021.<sup>33)</sup> The currency appreciated against the euro, affected by an increase in U.S. long-term interest rates and heightened expectations of an economic recovery in the first quarter of the year. Between April and May, it temporarily weakened against the euro, influenced by expectations of a continued accommodative monetary policy stance by the U.S. Federal Reserve and of the euro area's economic recovery.<sup>34)</sup> From June onward, however, the U.S. dollar again remained strong against the euro on the forecast that the U.S. and the euro area would show different paces of monetary policy normalization and eco-

nomic recovery. The currency strengthened against the Japanese yen as well on the outlook of differences in monetary policy stance.

**Figure I - 22. USD per EUR and JPY per USD Exchange Rates**



Source: Reuters

## B. Domestic Financial Markets

### (1) Interest Rates

#### Sharp Increase in Long-Term Interest Rates

In 2021, the three-year Treasury bond yield sharply increased thanks to monetary policy normalization at home and abroad.<sup>35)</sup> In chronological order, in March, it rapidly rose due to expectations of a domestic and international economic recovery. At the end of May, it increased once again, influenced by the upward adjustment of the domestic economic growth forecast<sup>36)</sup> and heightened expecta-

33) As of the end of 2021, the U.S. dollar strengthened 7.4 percent against the euro and 11.7 percent against the yen from the end of the previous year.

34) The European Commission revised the economic growth forecast upward for the euro area in 2021 (from 3.8 percent to 4.3 percent on May 12).

35) The yield stood at 1.80 percent at the end of 2021, an increase of 82bp from the 0.98 percent seen at the end of 2020.

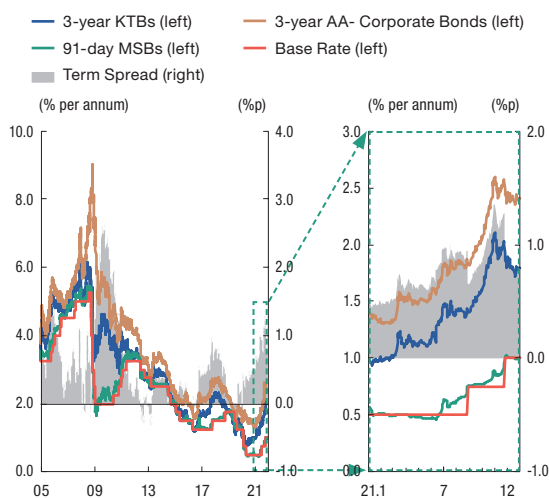
tions on an increase in the domestic Base Rate. In the second half of the year, the yield rose significantly, affected by two Base Rate hikes in August and November, the outlook for monetary policy normalization in major economies following global inflation concerns and the massive sell-off of bond futures by foreign investors. From November onward, however, it slightly declined owing to the deceleration of changes in the monetary policy stances of major economies and policy authorities' market stabilization measures<sup>37)</sup> following the emergence of the Omicron variant.

The yield on 91-day Monetary Stabilization Bonds rose in the second half, reflecting the expectations of a Base Rate hike.

The three-year corporate bond spread over the Treasury bond yield gradually widened in the second half. The corporate bond credit spread narrowed mainly for subprime bonds in the first half as risk aversion was reduced in line with the coronavirus vaccine rollout. While the credit spread narrowed significantly, affected by the change of benchmark Treasury bonds<sup>38)</sup> in mid-June, the credit spread for prime bonds (rated AA-) returned to the previous level. For subprime bonds (rated A-), on the other hand, the credit spread continued its downtrend due to high yield incentives and risk appetite. Both prime and subprime bonds continued their modest upward trend throughout the second half. However, from

October, with the growing volatility of Treasury bond yields, investor sentiment in credit bonds subsided, rapidly driving up the credit spread. At the end of the year, the margin of the widening spread increased as the book closing of institutions caused a slump in purchases.

**Figure 1 - 23. Major Market Interest Rates & Term-Spreads<sup>1)</sup>**



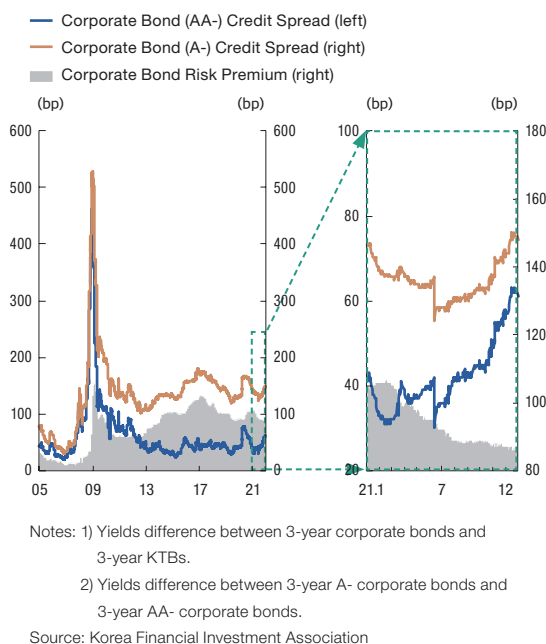
Note: 1) Yields difference between 3-year KTBs and Base Rate.

Sources: Korea Financial Investment Association, Bank of Korea

36) The Bank of Korea revised its economic growth forecast upward from 3.0 percent in February to 4.0 percent in May as the recovery of the domestic economy is expected to expand with an improvement in private consumption amid the continuation of strong exports and facility investment thanks to the global economic recovery.

37) The Bank of Korea announced a plan on Oct. 28, 2021, to reduce the issuance and to increase the buyback of Monetary Stabilization Bonds (MSBs) in November, and the government implemented an emergency buyback (announced on Nov. 2) of Treasury bonds worth 2 trillion won on Nov. 5, 2021.

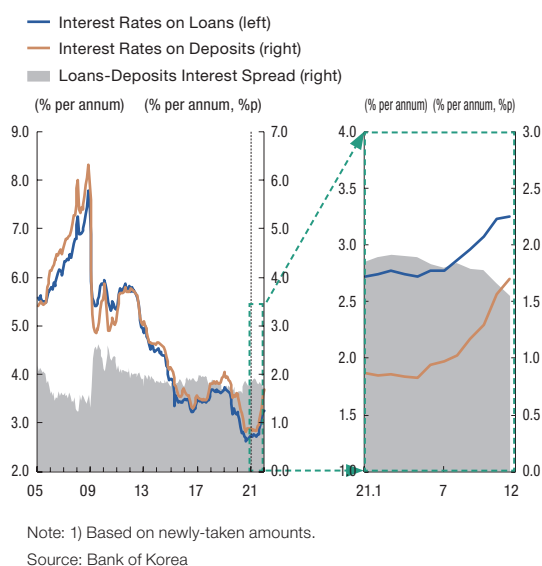
38) When the benchmark of the three-year Treasury bond, which is the standard for the calculation of credit spread, changed on June 10, the credit spread for both prime bonds and subprime bonds decreased by 10bp. This was mainly attributable to the fact that the three-year Treasury bond temporarily surged to 1.28 percent (June 10) from 1.14 percent (June 9) because expectations for the Base Rate rise resulted in weak preferences for the new benchmark, which has a remaining maturity of six months longer.

**Figure I - 24. Corporate Bond Credit Spreads<sup>1)</sup> & Risk Premiums<sup>2)</sup>**

### Significant Increase in Bank Lending and Deposit Rates

Interest rates on bank loans and deposits (based on newly taken deposits) displayed a sharp increase with the Base Rate hike and an increase in market interest rates. In December 2021, the bank lending rates were 3.25 percent, an increase of 0.51 percentage points from the 2.74 percent seen in December of the previous year. In terms of borrower types, while corporate lending rates rose to 3.14 percent in December 2021, 0.41 percentage points up year-on-year, household lending rates increased by 0.87 percentage points to 3.66 percent.<sup>39)</sup> Bank deposit rates in December 2021 were 1.70 percent, up by 0.80 percentage points from the 0.90 percent seen in December 2020. The margin of increase for deposit rates was greater,

resulting in a decrease in the spread between bank lending and deposit rates.

**Figure I - 25. Weighted Average Bank Interest Rates<sup>1)</sup> on Loans and Deposits**

### (2) Stock Prices

#### Downturn of KOSPI After Hitting an All-Time High

Amid the continued spread of the COVID-19 pandemic at home and abroad, the Korea Composite Stock Price Index (KOSPI) fluctuated, mainly influenced by developments in international factors. In chronological order, it increased rapidly at the beginning of the year thanks to expectations of fiscal expansion by the new U.S. administration and the rise in stock investments by individuals. It underwent some adjustment later in response to the resurgence of COVID-19 and vigilance over a short-term spike in stock prices. From late March, it rebounded as investor sentiment

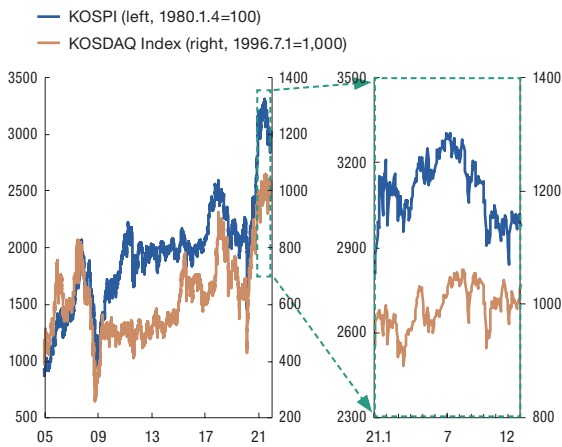
39) Household lending rates significantly rose compared to corporate lending rates, influenced by banks' increase of spreads (prime rate cuts) to manage the upward trend in household lending.



buoyed on the back of improved domestic and foreign economic indicators and expectations of robust corporate performance, reaching a record high in early July (3,305 on July 6). Despite the upside factors such as buoyant exports and strong business performance both at home and abroad, it took a downward turn from mid-July due to the spread of new COVID-19 variants, a slowdown in the semiconductor industry caused by disruptions in global supply chains, and concerns over accelerated monetary policy normalization by the U.S. Federal Reserve.<sup>40)</sup> In terms of annual growth, it closed the year at 2,978, up by 3.6 percent from 2,873 at the end of the previous year.

The KOSDAQ index fluctuated, showing similar trends with the KOSPI. It closed the year at 1,034, up by 6.8 percent from 968 at the end of 2020.

**Figure I - 26. KOSPI and KOSDAQ Indexes**



### (3) Deposits and Loans at Financial Institutions

#### Significant Increases in Deposit-Taking at Banks and Non-Banking Institutions

Deposit-taking at banks continued to increase significantly. Money market deposit accounts saw their growth contracting compared to 2020, but also grew by a bigger margin than other years, bolstered by precautionary motives and demand for standby funds for investment. Time deposits shifted to a substantial rise, affected by banks' efforts to attract time deposits to comply with the loan-to-deposit ratio rule and a hike in deposit rates.

Deposit-taking by asset management companies saw a considerable margin of growth compared to the previous year. As fund inflows to other funds such as real estate and special assets increased drastically, sales of stock funds and bond funds turned to a considerable upward trend, due to diminished direct investment led by a drop in stock prices in the second half of the year and reduced credit risk aversion from the previous year, respectively. However, the increase in money market funds (MMFs) fell in response to higher opportunity cost with a rise in market interest rates.

Meanwhile, deposits of non-banking institutions such as credit cooperatives showed substantial growth, backed by the merits of their relatively higher interest rates compared to deposit banks.

40) The KOSPI hit a record low for the year of 2,839 on Nov. 30, 2021, as concerns over the spread of the Omicron variant of COVID-19 heightened.



**Table I - 10. Deposits at Financial Institutions  
(changes in deposits)**

	(trillion won)				
	2017	2018	2019	2020	2021
Deposits at Banks <sup>1)</sup>	79.5	91.6	106.3	188.4	198.5
Demand Deposits	34.0	10.9	65.9	189.3	131.0
Time&Savings Deposits	28.8	72.2	48.3	-14.4	41.8
Marketable Instruments <sup>2)</sup>	17.7	7.8	-14.6	14.6	33.9
Deposits at Asset Management Companies	27.9	53.8	98.6	42.2	93.9
MMFs	-7.0	-7.7	15.2	21.0	9.6
Stock-Type Funds	4.2	7.3	2.5	-10.0	18.2
Bond-Type Funds	-8.6	6.4	15.7	-0.4	13.0
New Funds <sup>3)</sup>	39.3	47.8	65.2	31.5	53.0
Deposits at Mutual Savings Banks	6.9	8.6	6.1	13.2	23.3
Deposits at Credit Cooperatives <sup>4)</sup>	44.6	39.7	60.7	50.1	69.4

Notes: 1) Figures exclude deposits from banks, government, and non-residents.

2) CDs, RPs, cover bills, bank debentures.

3) Derivatives, real estate, indirect special-assets, mixed-asset, balanced funds.

4) Mutual credit companies, community credit cooperatives, credit unions.

Sources: Bank of Korea, Korea Financial Investment Association

### Continuation of High Growth Rate in Corporate Lending and Household Lending

In 2021, corporate loans exhibited a significant upward trend at a similar scale to 2020, as the impacts of the COVID-19 pandemic continued. In the case of corporate loans by banks, small and medium-sized enterprise (SME) loans continued to increase greatly, owing to financial support in the wake of COVID-19 and the increased demand for facility loans. Large corporate loans also increased as a result of the ongoing demand for

working capital. Non-bank corporate loans expanded their growth margin compared to the previous year, owing to SMEs and individual business owners in sectors affected by COVID-19.

Household loans also sustained a high rate of growth, continuing the upward trend seen in 2020. While household loans by deposit banks slowed their growth compared to the previous year, those by non-bank depository institutions showed significant growth and those by other financial institutions exhibited a similar growth scale to the previous year. Growth in mortgage loans by deposit banks slowed slightly as money demand for housing transactions and leasehold deposit continued despite loan regulations by the government.<sup>41)</sup> Other loans by deposit banks decreased their growth margin significantly due to stronger credit loan management by banks. Both mortgage loans and other loans by non-bank depository institutions exhibited substantial growth, led by the demand for funds related to housing transactions as well as a shift in loan demand due to tightened regulations by banks. Other financial institutions also showed a significant growth in household loans, similar to the level of the previous year, owing to surging demand for living expenses.

41) In accordance with the Household Debt Management Measures announced by the Financial Services Commission on April 29, the first phase of the individual borrower-level DSR is applied from July 2021 to individual borrowers with mortgage loans for houses priced over 600 million won in regulated areas or with credit loans of more than 100 million won.

**Table I - 11. Loans by Financial Institutions**  
(changes in amounts during the period)

	(trillion won)				
	2017	2018	2019	2020	2021
Corporate Loans	72.2	81.8	90.2	169.6	171.5
Banks	40.4	46.7	47.7	110.8	94.1
Large Corporations	-3.7	6.9	-1.8	20.9	9.0
SMEs	44.0	39.8	49.4	90.0	85.1
Non-Banks <sup>1)</sup>	31.8	35.1	42.5	58.8	77.4
Household Loans <sup>2)</sup>	100.0	76.8	58.3	127.1	123.8
Deposit Banks	43.3	52.4	54.6	82.2	60.2
(Mortgage Loans)	21.6	30.1	39.7	49.9	45.7
(Other Loans)	21.6	22.4	14.9	32.2	14.6
Non-Bank Depository Institutions <sup>3)</sup>	22.6	6.8	-4.5	7.6	27.6
(Mortgage Loans)	10.8	-3.9	-10.4	-4.0	9.2
(Other Loans)	11.8	10.7	6.0	11.6	18.4
Other Financial Institutions <sup>4)</sup>	34.1	17.5	8.1	37.4	36.0

Notes: 1) Based on loans by mutual credit companies, credit unions, community credit cooperatives, mutual savings banks.

2) Based on household credit statistics.

3) Mutual credit companies, credit unions, community credit cooperatives, mutual savings banks, trusts, and postal savings.

4) Insurance companies, pension funds, specialized credit financial companies, public financial institutions, etc.

Sources: Bank of Korea, Financial Supervisory Service

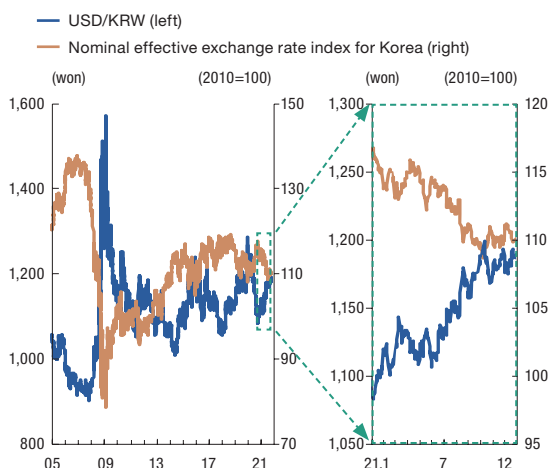
#### (4) Foreign Exchange Market

##### Weakness of KRW against USD

The USD/KRW exchange rate fluctuated from January to May between 1,100 won and 1,140 won, higher than at the end of last year, owing to developments in the COVID-19 pandemic at home and abroad and changes in expectations toward the monetary policy stance of the U.S. Federal Reserve. Since June, the exchange rate sustained its uptrend, affected by heightened concern about global risk factors, such as the spread of the Delta variant, the U.S. Federal Reserve's looming tapering, and concern about the possible default of Chi-

na's Evergrande Group, along with increased domestic demand for foreign exchange as a result of the massive sell-off of domestic stocks by foreign investors and rising oil prices, to hit a record high for the year at 1,198.8 won on Oct. 12. The margin of increase in the exchange rate later narrowed, supported by the improvement of the foreign exchange supply and demand following domestic stock purchases by foreign investors, despite U.S. inflation concerns and growing expectations for the early normalization of the U.S. Federal Reserve's monetary policy. At the end of 2021, the USD/KRW exchange rate stood at 1,188.8 won, an increase of 9.4 percent from 1,086.3 won at the end of the previous year.

Meanwhile, the nominal effective exchange rate (NEER) index of the Korean won (BIS basis) declined owing to the strengthening of the yuan following China's strong exports and the strengthening of the U.S. dollar in line with expectations of early normalization of monetary policy by the U.S. Federal Reserve, more than offsetting the weakening of the yen resulting from the widening interest rate differential between the U.S. and Japan. The NEER recorded 109.9 at the end of 2021, down by 5.9 percent from 116.8 at the end of 2020.

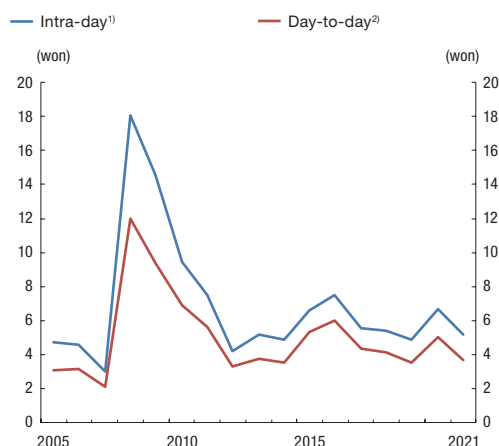
Figure I - 27. Exchange Rate, Nominal Effective Exchange Rate Index for Korea<sup>1)</sup>

Note: 1) The USD/KRW rate is the closing price in the Seoul Foreign Exchange Market and the Nominal Effective Exchange Rate Index for Korea is based on BIS announcements.

Sources: Bank of Korea, Bank for International Settlements

In 2021, both intra-day and day-to-day volatility in the USD/KRW exchange rate declined to average 5.2 and 3.6 won, respectively, compared to 6.6 and 5.0 won in 2020.

Figure I - 28. USD/KRW Exchange Rate Volatility



Notes: 1) Averages of the intra-day highest rate minus the intra-day lowest rate.

2) Averages of the absolute value of the day closing rate minus the previous day closing rate.

Source: Bank of Korea

### Rise in Foreign Exchange Swap Rate and Currency Swap Rate

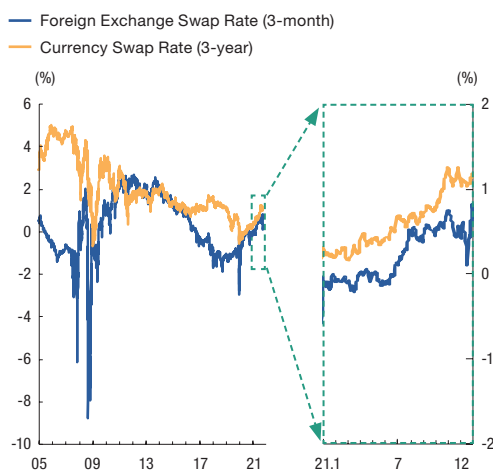
The foreign exchange swap rate<sup>42)</sup> with a three-month maturity fluctuated in early 2021 with the coexistence of upside factors, including the supply of foreign currency funds for domestic investments by foreigners, and downside factors, such as the demand for foreign currency funds for overseas investments by domestic institutional investors, and the contraction in investor sentiment resulting from concerns over surging U.S. inflation. Since June, it displayed an upward movement, bolstered by the widening interest rate differential between the U.S. and Korea due to the possibility of an upward adjustment of the Base Rate in Korea and favorable U.S. dollar

42) A foreign exchange swap is a transaction through which two parties exchange different currencies at a certain point in time at an agreed exchange rate. They then re-exchange the principals after a set period at the forward exchange rate that was determined when the relevant contract was concluded. The foreign exchange swap rate is expressed as the annualized rate (%) of the difference between the forward and spot exchange rates as against the spot exchange rate:  $\{(\text{Forward exchange rate} - \text{Spot exchange rate}) / \text{Spot exchange rate}\}$ .

liquidity conditions at domestic banks. The rate then retraced the gain from November, affected by domestic institutional investors' growing demand of foreign currency funds for overseas investments, despite an additional upward adjustment of the Base Rate in Korea and supply of foreign currency funds related to domestic companies' forward exchange buying.<sup>43)</sup> It finished the year at 0.67 percent, up by 0.71 percentage points compared to minus 0.04 percent at the end of 2020.

The currency swap rate<sup>44)</sup> with a three-year maturity broadly maintained an upward trend due to an increase in the Treasury bond yield and swap rates, and the supply of foreign currency funds for interest rate arbitrage transactions by foreigners, despite the demand for foreign currency funds for overseas investments by domestic institutional investors. It finished the year at 1.19 percent, up by 0.88 percentage points compared to 0.31 percent at the end of 2020.

**Figure I - 29. Foreign Exchange Swap Rate & Currency Swap Rate**



Sources: Bank of Korea, Korea Money Brokerage Corp., Tullett Prebon Money Brokerage Korea Ltd.

43) The foreign exchange swap rate temporarily fluctuated in December due to year-end factors such as conservative fund management by financial institutions at the end of year.

44) A currency swap resembles a foreign exchange swap in that two parties exchange different currencies and re-exchange the principals after a predetermined period of time. They differ, however, in that the period of maturity for the former usually exceeds one year, that the parties to a currency swap exchange interest payments during the contract period, and that the amount of principal exchanged through a currency swap is the same at the time of the initial exchange and at maturity. The currency swap rate is the fixed rate of KRW paid by the party who borrow KRW in exchange for LIBOR.

## QR BOX



### QR 1

Monetary Policy Report  
(March 2021)



### QR 2

Monetary Policy Report  
(June 2021)



### QR 3

Monetary Policy Report  
(September 2021)



### QR 4

Monetary Policy Report  
(December 2021)



### QR 5

Monetary Policy Report  
(March 2022)



### QR 6

Regional Economic  
Report Website



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## II

# Bank of Korea's Conduct of Its Business

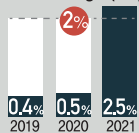
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# Bank of Korea in 2021

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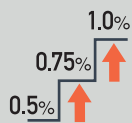
## Implementation of Monetary Policy

Inflation Target (CPI)



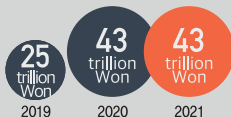
### Reviewed the Operating Status of Inflation Targeting

(June and December)



### Increased the Base Rate

(August and November)



### Continued to Support Businesses Affected by COVID-19 through Expansion of the Bank Intermediated Lending Support Facility

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## Enhancement of Research Activities and Internal & External Cooperation



### Analyzed Key Pending Issues in the Korean Economy

Conducted research on the impact of the spread of COVID-19 and changes in the economic environment in the aftermath of the pandemic



### Expanded Contactless Public Communication

Actively utilized social media channels

Launched the Digital Money Museum



### Actively Participated in Global Policy Cooperation Discussions

Including Activities as a Member of the BIS Board of Directors

Hosted the ASEAN+3 Finance Ministers' and Central Bank Governors' Meeting



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## Fulfillment of Financial Stability Responsibilities and Preparation for Long-Term Policy Issues



### Enhanced Financial Stability Condition Evaluation

Held Financial Stability Meetings

Published the Financial Stability Report



### Stabilized the Foreign Exchange Market

Signed an agreement with the U.S. Federal Reserve to use the FIMA Repo Facility

Extended the currency swap agreement with the U.S. (USD 60 billion) in June, and it expired in December



### Operated the Emergency Response System

Held meetings of the Monetary and Financial Task Force in preparation for the U.S. Federal Reserve's normalization of monetary policy and the default of China's Evergrande Group



### Responded to Climate Change

Established the Bank of Korea's Direction for Climate Change Response



### Reinforced Research on a Central Bank Digital Currency (CBDC)

Conducted pilot tests of CBDCs

Investigated trends in global discussions and legal issues regarding CBDC adoption



## 1. Medium-Term Strategies

The Bank of Korea dedicates its utmost efforts to fulfilling its founding purpose of securing price and financial stability, and to promoting the stabilization and development of the national economy as the nation's central bank. To this end, it annually develops and implements a set of strategies that define the overall operational objectives and priorities for the Bank over the next three years. In accordance with these strategies, all departments establish and implement their own key business plans for the corresponding fiscal year.

The medium-term strategies in 2021 consisted of six strategic objectives in major business areas, and 19 related strategic plans. The following sections outline the key tasks and achievements of these strategic plans in different business areas.

Table II - 1. Medium-Term Strategies in 2021

<b>1 Expansion of Policy Arena and Policy Instruments</b>
Pursuing improvement of monetary policy framework
Strengthening the financial stability role
Expanding financial safety nets
Ensuring stable operations of foreign exchange reserves
<b>2 Enhancement of Research Quality</b>
Strengthening research to deal with new financial and economic issues
Restructuring research systems and pursuing their establishment
Strengthening analysis of policy effects for optimal monetary policy decisions
Advancing economic statistics services
<b>3 Active Pursuit of Digital Innovation</b>
Improving the work process and environment
Reorganizing governance structure of digital innovation and pursuing its establishment
<b>4 Restructuring of Management System</b>
Strengthening staff expertise and competence
Reinforcing task-, performance- and ability-based human resource management systems
Enhancing efficiency of organizational operations and increasing accountability
Improving risk management and strengthening crisis response capacity
<b>5 Creating Reliable Payment and Settlement Environment</b>
Promoting payment and settlement innovation and development
Strengthening oversight and policy functions of payment and settlement systems
Establishing stable currency supply and management system
<b>6 Strengthening Public Communications and International Cooperation</b>
Strengthening policy communications and improving quality of economic education
Enhancing exchanges and cooperation with international forums, international organizations and other central banks

Source: Bank of Korea

## 2. Monetary Policy<sup>45)</sup>

The Bank of Korea devotes its utmost efforts to the sound development of the national economy by pursuing price stability, and paying attention to financial stability, as well, through the efficient establishment and implementation of monetary and credit policies. The Bank has selected inflation targeting as its operational framework for monetary policy, and even under its inflation-targeting regime, policy decisions are made based upon a comprehensive consideration of issues, such as economic growth and financial stability, in addition to inflationary conditions.

In order to effectively achieve its policy objectives, the Bank of Korea determines the Base Rate and also utilizes other policy instruments, including lending and deposit facilities, open market operations, and the reserve requirement system.

### A. Inflation Target

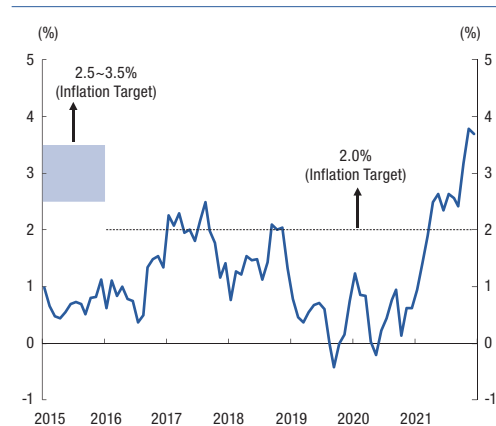
Since 2016, the Bank of Korea has set an inflation target of 2 percent, based on the year-on-year rate of increase in the consumer price index (CPI). The Bank implemented the “Inflation Target for 2019 Onwards” starting in 2019, which was changed to operate in a way that no longer specifies a period for its application, while maintaining the inflation target at 2 percent, the same as in recent years (from 2016 to 2018).

The Bank operated its monetary policy to ensure that consumer price inflation would reach the inflation target over the medium

term. Consumer price inflation in 2021 recorded 2.5 percent, rising over the inflation target attributable to supply factors such as the increase in prices of petroleum products and agricultural and livestock products and supply chain bottlenecks, combined with demand factors in the wake of the economic recovery.

As usual, the Bank provided explanations of its implementation of monetary policy by issuing the Monetary Policy Report, a statutory report submitted to the National Assembly four times a year, and by having the Governor of the Bank of Korea attend sessions of the National Assembly to answer questions when requested. Furthermore, the Bank made efforts to enhance economic agents' understanding of overall inflation conditions by publishing a report examining the operating status of inflation targeting, and holding press conferences with the governor twice a year.

**Figure II - 1. Inflation Target and CPI Inflation (year-on-year)**



Sources: Bank of Korea, Statistics Korea

45) For further information on the monetary and credit policies implemented by the Bank of Korea, refer to II. Conduct of Monetary Policy under the Monetary Policy Paper issued quarterly. The paper's URL can be found in footnote 1) on page 3, and its QR code on page 27. For further information on the monetary policy system of the Bank of Korea, refer to the [Monetary Policy in Korea \(2017\)](#) published by the Bank of Korea.

## B. Base Rate

In 2021, the Bank of Korea contracted the degree of accommodative monetary policy by raising the Base Rate on two occasions by 0.50 percentage points to avoid the risk of a build-up of financial instability while the economy continued the recovery of its growth rate and consumer price inflation was stabilizing near the inflation target over the medium-term horizon.<sup>46)</sup>

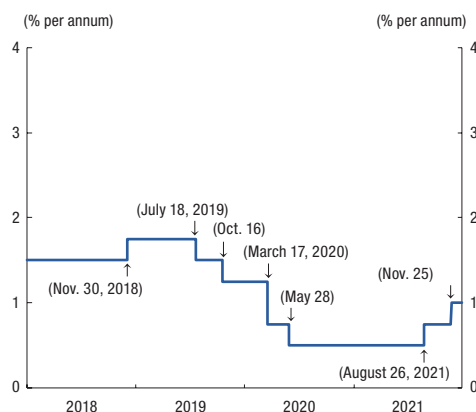
In chronological order, the Bank maintained the Base Rate at 0.50 percent per annum in the first half of the year. Although the domestic economy recorded faster growth than expected due to the recovery of the global economy and prices rose with a focus on petroleum products and agricultural, livestock, and fisheries products, the Bank's decision was made based on the judgment that it was necessary to continue monitoring whether the economic recovery would persist while also observing the development of the COVID-19 pandemic.

In the second half of the year, the Bank raised the Base Rate on two occasions (August and November) by 0.50 percentage points. The Bank deemed that it was an appropriate timing to gradually normalize the unprecedented accommodative monetary policy stance implemented in response to COVID-19, in consideration of the fact that the economy was maintaining sound growth led by favorable export conditions and the expansion of vaccinations despite the persisting uncertainty related to COVID-19, in addition to expectations for the continuation of high inflation of consumer prices exceeding the inflation target

and the ongoing accumulation of the risk of financial instability.<sup>47)</sup>

In 2021, two Base Rate increases in August and November were expected to serve as a factor in gradually easing the high inflationary pressure by relaxing the total demand pressure and stabilizing the expectation of inflation. Moreover, in terms of financial stability, the Bank is deemed to have contributed toward mitigating the excessive search-for-yield sentiment and slowing the upward movement in household debt and housing prices in line with government measures, including the enhancement of macroprudential stability regulations and the expansion of the housing supply.

Figure II- 2. Bank of Korea Base Rate



Source: Bank of Korea

## C. Lending and Deposit Facilities

The Bank of Korea offers lending and deposit services to financial institutions as part of its role as a central bank responsible for

46) For more information, please see "Minutes of the Monetary Policy Board Meeting" in the Appendix.

47) For further information on the background and implementing measures of the monetary policy normalization, refer to I. Monetary Policy Operation Condition and II. Conduct of Monetary Policy in the September and December 2021 issues of the Monetary Policy Paper issued quarterly. The paper's URL can be found in note 1) on page 3, and its QR code on page 27.

monetary and credit policies. The Bank's credit businesses in 2021 included the Bank Intermediated Lending Support Facility, Liquidity Adjustment Loans, and Intra-day Overdrafts, while its deposit businesses consisted of Current Account Deposits, Fund Adjustment Deposits, and Monetary Stabilization Account Deposits.

As of the end of 2021, the balance of the Bank's won-denominated loans to financial institutions stood at 40.3 trillion won, up by 6.0 trillion won compared to the end of 2020.

**Table II - 2. Loans<sup>1)</sup> of Bank of Korea (as of year-end)**

(hundred million won)

	Outstanding		Change
	2020	2021	
Bank Intermediated Lending Support Facility	325,123	378,338	53,215
Loans to Special Purpose Vehicle <sup>2)</sup> for Purchasing Corporate Bonds and Commercial Paper	17,600	24,460	6,860
<b>Total</b>	<b>342,723</b>	<b>402,798</b>	<b>60,075</b>

Notes: 1) Excluding loans to government.

2) Limited company for corporate liquidity support organization.

Source: Bank of Korea

At the end of 2021, the volume of the Bank's deposits held totaled 159.6 trillion won, 3 trillion won higher than at year-end 2020. Among them, won-denominated deposits increased by 4.1 trillion won, and deposits in foreign currencies decreased by 1.1 trillion won.

**Table II - 3. Deposits With Bank of Korea (as of year-end)**

(hundred million won)

	Outstanding		Change
	2020	2021	
Won Deposits	870,490	911,343	40,853
Financial institutions	833,391	883,159	49,768
Non-Resident <sup>1)</sup>	37,099	28,184	-8,915
Foreign Currency Deposits	695,469	684,247	-11,222
<b>Total</b>	<b>1,565,959</b>	<b>1,595,590</b>	<b>29,631</b>

Note: 1) Won deposits of international organization, including the IMF.

Source: Bank of Korea

### Continuing Support for Companies Affected by COVID-19 Through the Bank-Intermediated Lending Support Facility<sup>48)</sup>

The Bank of Korea increased the total ceiling and extended the operation period of temporary support measures that were launched in 2020, such as the Support for Companies Affected by COVID-19 (March 2020) and the Support for Small Businesses (October 2020), in order to continue supporting small businesses, and SMEs that faced financial difficulties aggravated by COVID-19.

The Bank extended the operation period of the two aforementioned programs by six months on two occasions,<sup>49)</sup> as they were originally scheduled to expire at the end of March 2021. Meanwhile, starting from Oct. 1, 2020, the ceiling of the Support for Small Businesses was increased by 3 trillion won, using the excess funds from the Program for Stabilization of SME Lending. In addition, the Bank changed the scope of businesses eligible for the support program from all industries

48) This is a lending facility that the Bank of Korea operates to support financial institutions that lend to SMEs, through which the Bank provides a low-interest fund based on each financial institution's performance of lending money to SMEs within the lending limit.

49) Accordingly, the operation period (based on the date of loan handling by banks) was extended from the end of March 2021 to the end of March 2022.

to small businesses or SMEs engaged in the service industry in order to concentrate assistance on affected companies.

Meanwhile, some temporary support measures whose operation period had matured at the end of September 2021 were terminated as scheduled. Specifically, the support program for facilities investment of start-ups, job-creating businesses, and materials, parts and equipment businesses,<sup>50)</sup> and the support through an expanded ceiling for trade financing<sup>51)</sup> were terminated on Oct. 1 as scheduled.<sup>52)</sup>

As of the end of 2021, the total amount of the Bank Intermediated Lending Support Facility stood at 43.0 trillion won, including 1.5 trillion won under the Support Program for Trade Financing, 13.0 trillion won under the Support for New Growth Engine Development and Job Creation, 3.5 trillion won under the Program for the Stabilization of SME Lending, 5.9 trillion won under the Support Program for Regional Enterprises, and 19.1 trillion won for ceiling reserves.

**Table II - 4. Adjustment of Bank Intermediated Lending Support Facility Ceiling**

(trillion won, % per annum)

Program		Ceiling		Interest Rate <sup>1)</sup>
		Before	After	
Trade Financing Support		2.5	1.5 <sup>2)</sup>	0.25
New Growth Engine Development and Job Creation		13.0	13.0	0.25
Stabilization of SME Lending		5.5	3.5 <sup>3)</sup>	0.25
Regional Enterprises		5.9	5.9	0.25
Limited Reservation	Support for Companies Affected by COVID-19	13.0	13.0	0.25
	Support for Small Business	3.0	6.0 <sup>4)</sup>	0.25
	Other	0.1	0.1	0.25
Total		43.0	43.0	-

Notes: 1) As of end-2021.

2) Effective Dec. 1, 2021.

3) The ceiling was reduced by 3 trillion won (5.5 trillion won → 2.5 trillion won) effective Oct. 1, 2021, and then increased by 1 trillion won (2.5 trillion won → 3.5 trillion won) effective Dec. 1, 2021.

4) Effective Oct. 1, 2021

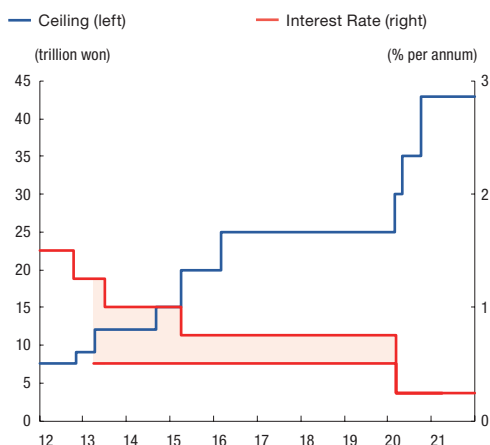
Source: Bank of Korea

50) The Bank of Korea introduced a support program with a ceiling of five trillion won under the Support for New Growth Engine Development and Job Creation with the expiration date of Sept. 30, 2021.

51) The Bank introduced a support program with a ceiling of one trillion won in response to eligible new lending performance under the Support Program for Trade Financing (total ceiling of 2.5 trillion won) with the expiration date of Sept. 30, 2021.

52) After termination, the five trillion won allocated to support facilities investment was assigned to be managed by the Support for New Growth Engine Development and Job Creation program to support existing loans and one trillion won to support new loans related to trade financing was assigned to be managed by the Program for Stabilization of SME Lending from Dec. 1, 2021.

**Figure II - 3. Bank Intermediated Lending Support Facility Ceiling and Interest Rates<sup>1)</sup>**



Note: 1) The shaded area represents the upper and lower bounds for the period when the lending rate varied for each program.

Source: Bank of Korea

## Normalization of Measures to Stabilize the Financial Market

The Bank of Korea gradually normalized the measures implemented in 2020 in response to financing difficulties facing businesses and financial institutions as well as instability across the financial market in the wake of COVID-19.

The Corporate Bond-Backed Lending Facility<sup>53)</sup> which was launched on May 4, 2020, as a safety net for banks and non-bank financial institutions to anticipate the deterioration of financing conditions, was terminated on Feb. 3, 2021.

Furthermore, on March 31, 2021, the Bank

terminated the temporary measure to expand the eligible collateral for lending facilities, which was intended to solidify the foundation to supply smooth liquidity by lending funds to banks.

**Table II - 5. Eligible Collateral for Lending Facilities**

Eligible Collateral for Lending Facilities	Note
Treasury bonds, government-guaranteed bonds, Monetary Stabilization Bonds (MSB), MBSs issued by the Korea Housing Finance Corporation, debentures issued by three specialized banks <sup>1)</sup>	-
General bank debentures (including debentures issued by the National Agricultural Cooperative Federation and Nonghyup Bank, and by the National Federation of Fisheries Cooperatives and Suhyup Bank), bonds issued by 9 public organizations <sup>2)</sup>	Effective until March 31, 2021

Notes: 1) The Korea Development Bank, the Industrial Bank of Korea, and the Export-Import Bank of Korea.

2) Korea SMEs and Startups Agency, Korea Gas Corporation, Korea Expressway Corporation, K-Water, Korea Electric Power Corporation, KORAIL, Korea Rail Network Authority, Korea Land and Housing Corporation, Korea Deposit Insurance Corporation.

Source: Bank of Korea

Also, on July 13, 2021, the Bank of Korea terminated the additional lending for a special purpose vehicle (SPV)<sup>54)</sup> to purchase corporate bonds and commercial paper including low-rated ones with the intention of mitigating credit market instability and corporations' difficulties in financing amidst the pandemic,<sup>55)</sup> while the purchasing period for corporate bonds and commercial paper through the SPV was terminated at the end of 2021 as sched-

53) This is a standing loan facility that allows banks, insurance companies, and non-bank financial institutions to take out a loan from the Bank of Korea at any time when they provide qualifying corporate bonds (credit rating AA- or above) as securities.

54) The Bank of Korea cooperated with the government and the policy financing institution (the Korea Development Bank) to establish a special purpose vehicle (SPV) to purchase corporate bonds and commercial paper, including low-rated ones, on July 14, 2020, and provided a total of 3.56 trillion won in loans—1.78 trillion won each on July 23, 2020, (first loan) and on Jan. 12, 2021, (second loan), respectively.

55) However, for the first and second previous loans, the support program for the SPV will continue through the extension of the expiration date.



uled after two extensions.<sup>56)57)</sup>

## D. Open Market Operations

The Bank of Korea flexibly adjusted liquidity to maintain the call rate at the level of the Base Rate set by the Monetary Policy Board through the application of measures such as the issuance of Monetary Stabilization Bonds (MSBs), conducting transactions through Repurchase Agreements (RPs), and accepting term deposits in its Monetary Stabilization Account (MSA).

Furthermore, the Bank improved the system of MSBs by introducing 3-year MSBs to raise the effectiveness of liquidity adjustments, and the measure broadening the scope of securities eligible for open market operations was terminated in March 2021 as scheduled, after it was implemented to ensure the stability of the financial market in the early phase of the COVID-19 pandemic.

The Bank conducted outright purchases of Treasury bonds in the first half of the year, and then scaled down the issuance of MSBs and increased the volume of their buyback in November and December to respond to the anticipation of a heightening of volatility in market interest rates.

## Flexible Liquidity Adjustment and Systematic Improvements

In 2021, the scale of liquidity adjustment required on an average outstanding balance basis was 177.4 trillion won, down by 3.2 trillion won from the previous year. This decline was attributable mainly to an increase in reserves demand caused by the growth in transferable deposits, in addition to a decline in the supply of reserves<sup>58)</sup> as currency issuance expanded. In response, the Bank scaled down its MSB issuance and flexibly adjusted the volume of RP transactions in accordance with short-term financial market conditions, such as fluctuations in the supply and demand of reserves.

On an average outstanding balance basis, the scale of MSB issuance was reduced by 12.5 trillion won year-on-year due to a decline in the scale of liquidity adjustment required and waning confidence in investing bonds. Meanwhile, net reverse repos (reverse repos minus repos, on an average outstanding balance basis) increased by 9.5 trillion won year-on-year. The growth in net reserve repos was attributable to the decline in RP purchase with the termination of full-allotment RP purchases<sup>59)</sup> and the increase in reverse repos according to the cut in MSB issuance. MSA deposits (on an average outstanding balance basis) declined by 0.2 trillion won from the last year.

56) The expiration date to purchase corporate bonds and commercial paper through an SPV, originally scheduled for Jan. 13, 2021, was extended on two occasions to July 13, 2021, and then to the end of 2021.

57) As of the end of 2021, the volume of corporate bonds and commercial paper purchased by an SPV reached a total of 4.5 trillion won (3.1 trillion won for corporate bonds and 1.4 trillion won for commercial paper).

58) Reserves consist of cash held by financial institutions (vault cash) and funds deposited in the central bank by financial institutions (current deposits). As a financial institution withdraws cash (currency issuance) from the current deposits in the Bank of Korea in consideration of factors such as public demand for cash, most of the withdrawn current deposits is injected into public circulation. Thus, the increase in currency issuance led by an increase in public demand for cash reduces the total amount of reserves (current deposits and vault cash).

59) This refers to a measure that provides an unlimited amount of liquidity required by financial institutions at a fixed rate by placing a bid for an RP with a 91-day maturity once a week. Through this measure, the Bank of Korea supplied 19.43 trillion won into the financial markets from April to July 2020.

**Table II - 6. Scale of Liquidity Adjustment via Open Market Operations (average basis)**

	2020	2021				
		Year	I	II	III	IV
Scale of Liquidity Adjustment Required	180.6	177.4	181.0	181.7	177.4	169.5
MSBs	163.1	150.6	156.2	151.9	150.9	143.6
Repos Net Outstanding	8.0	17.5	15.0	17.8	18.4	18.6
Reverse Repos	13.0	17.5	15.0	17.8	18.4	18.6
Repos	5.0	0.0	0.0	0.0	0.0	0.0
MSA	9.5	9.3	9.8	12.0	8.1	7.3

Source: Bank of Korea

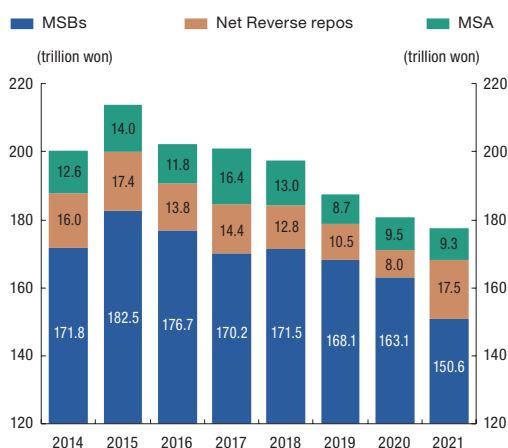
Therefore, among all of the Bank's open market operation instruments, MSBs and the MSA accounted for 84.9 percent and 5.2 percent, respectively, in 2021, down from 90.3 percent and 5.3 percent in 2020, while net reverse repos accounted for 9.8 percent in 2021, increasing from 4.4 percent in 2020.

Starting from September 2021, the Bank of Korea improved detailed aspects of its regular auction process in order to set better conditions in terms of responding flexibly to market conditions by expanding the liquidity management instruments. The Bank adopted and regularly issued 3-year MSBs; discontinued the issuance of 182-day MSBs due to their low demand in response to opinions gathered from institutions eligible for open market operations; and, adjusted the fungible issuance period of 2-year MSBs. Specifically, the issuance of 91-day MSBs was increased, given the cessation of the regular issuance of 182-day

MSBs, while the issuance of 1-year or 2-year MSBs was reduced,<sup>60)</sup> given the new issuance of 3-year MSBs. Also, in order to enhance the liquidity of MSBs and the convenience of market participants, the fungible issue period and dates<sup>61)</sup> were adjusted. For 1-year MSBs, the fungible issuance period remained for two months, but for 2-year MSBs, it was increased to three months from two months because it is necessary to raise liquidity after reducing their issuance, while the period was set at six months for the new 3-year MSBs.

For buybacks, items with a six-month remaining maturity were added to the eligible list for buybacks to raise the liquidity of 1-year MSBs.<sup>62)</sup>

**Figure II - 4. Scale of Liquidity Adjustment via Open Market Operations<sup>1)</sup> (average basis)**



Note: 1) Excluding negotiated transaction with Korea Finance Corporation (3.48 trillion won, issued in 2014, redeemed in 2015) and the Korea Development Bank (3.45 trillion won, issued in 2015, redeemed in 2016).

Source: Bank of Korea

60) The Bank of Korea issued 91-day MSBs worth around one trillion won once a week. For 1-year and 2-year MSBs, 1.7 trillion and 3.5 trillion won a month were issued, respectively, including public offerings, in addition to 1.3 trillion won a month for 3-year MSBs.

61) The integrated issuance date for 1-year MSBs remained the same as the previous date (the ninth of any odd month) while the date for 2-year MSBs was adjusted to Jan., April, July, and Oct. 2, and for 3-year MSBs to March and Sept. 3.

62) The volume of buybacks remained at the previous level (four trillion won every odd month).

### Termination of the Measure to Expand Securities Eligible for Open Market Operation

The Bank of Korea terminated the expansion of the scope of securities eligible as collateral for open market operations as planned, after it had been implemented temporarily (from April 2020 to March 2021) to improve the availability of collateral for financial institutions and expand liquidity supply channels for the financial market during the COVID-19 pandemic, based on the judgement that the intended goal of the measure had been accomplished. Accordingly, the debentures issued by three specialized banks (the Korea Development Bank, the Industrial Bank of Korea, and the Export-Import Bank of Korea) were excluded from the securities eligible for outright sales and RP transactions, while general bank debentures (including debentures issued by the National Agricultural Cooperative Federation and Nonghyup Bank, and by the National Federation of Fisheries Cooperatives and Suhyup Bank), and bonds issued by nine public institutions were eliminated from securities eligible for RP transactions. Also, MBSs issued by the Korea Housing Financing Corporation, which had been added to the securities eligible for outright sales, were once again limited to securities eligible for RP transactions, as before.<sup>63)</sup>

### Outright Purchases of Treasury Bonds

On Feb. 26, 2021, the Bank announced plans to expand its outright purchase of Treasury bonds within a range of five to seven tril-

lion won during the first half of the year as a preemptive response to any possible discrepancy in the supply and demand of Treasury bonds and a consequent rise in volatility in market interest rates, caused by the government's increased issuance of Treasury bonds over the course of responding to COVID-19. In line with the plan, the Bank purchased Treasury bonds on four occasions with a total amounting to six trillion won from March to June—2.0 trillion won on March 9, 1.0 trillion won on April 28, 1.5 trillion won on June 3, and 1.5 trillion won on June 28.

### Reduction of MSB Issuance and Expansion of MSB Buyback

In October 2021, Korean Treasury bond yields surged following foreign investors' massive sell-off of futures amid a spike in interest rates in major economies on widespread concerns over global inflation and anticipation of monetary policy changes at home and abroad. Accordingly, the Bank of Korea reduced the issuance of MSBs and increased their buybacks to ease interest rate volatility in November and December.

Specifically, the volume of MSBs scheduled to be issued in November was cut to 8.8 trillion won by 1.7 trillion won from the issuance plan set in October, while the issuance plan for December remained as low as 7.4 trillion won.<sup>64)</sup> The volume of buybacks, implemented every odd month, was increased by one trillion won (4.0 trillion won → 5.0 trillion won) in November from the usual volume.

63) Accordingly, the scope of securities eligible for the Bank's open market operations was restored to Treasury bonds, government-guaranteed securities, MSBs, and MBSs issued by the Korea Housing Finance Corporation, as before (however, MSBs, and MBSs issued by the Korea Housing Finance Corporation, were limited to RP transactions).

64) Monthly issuance was planned to be 10.2 trillion won in September 2021 → 10.5 trillion won in October → 8.8 trillion won in November → 7.4 trillion won in December.

## E. Monetary Policy Communication

The Bank of Korea continued its efforts to enhance communication with market participants and the public to help economic players further understand its monetary policy operations in the course of the economic recovery after the end of the pandemic, and to enable them to form reasonable expectations about its policy direction.

First, as the Bank decided to review the status of inflation target operations twice per year starting in 2019, the Governor of the Bank of Korea attended a press conference in June and December and provided explanations of inflationary conditions, future forecasts risk factors, and the Bank's policy direction. The Monetary Policy Report issued quarterly provided detailed explanations of its monetary policy operations in response to the expansion of the upward trend in prices and the accumulation of financial imbalances.

The Bank managed its panel for external communications, consisting of around 200 outside experts, to reinforce feedback from its policy and administrative operations, and strove to secure its diversity by including scholars, researchers, financial experts, business and industry experts, and others on the panel. The external opinions regarding monetary policy directions, major reports, and policy and administrative operations were

collected in a timely manner by the expanded and diversified communication panel and were then reflected in the establishment of policy and administrative improvements.

Despite restrictions in face-to-face activities due to the pandemic, members of the Monetary Policy Board also made active efforts to communicate through webinars, video conferences, contributing articles, and small meetings.

### QR BOX



#### QR 1

Monetary Policy in Korea  
(2017)

### 3. Financial Stability<sup>65)</sup>

#### A. Analysis and Assessment of Macro-prudential Stability

The Bank of Korea dedicated itself to ensuring the faithful fulfillment of its duties related to financial stability, such as the comprehensive assessment of financial stability conditions in Korea and the suggestion of policy measures. Amid a buildup of financial imbalances stemming from the accumulation of household debt, the Bank assessed the possible spread of adverse effects in the event of domestic and external shocks and strengthened early warning activities. In particular, the Bank intensively examined the effects of changes in financial and economic conditions, such as rising global inflationary pressure and monetary policy normalization in major countries, on domestic financial stability. Moreover, the Bank strengthened its monitoring and analysis of debt repayment capacity with a focus on the vulnerable areas of the household and business sectors, while closely examining

the management soundness and resilience of financial institutions through joint inspections. It also devised its response strategies<sup>66)</sup> in relation to climate change risks.

#### Evaluation of Financial Stability Conditions<sup>67)</sup>

The financial system in Korea showed stable movements in general, boosted by economic recovery and favorable external soundness amid the sustained impact of the COVID-19 pandemic. The asset soundness and loss absorption capacities of financial institutions also maintained a favorable trend. However, it is analyzed that the potential vulnerability in terms of financial stability expanded as real estate prices and household debt continued their uptrend. While the Financial Stress Index (FSI),<sup>68)</sup> indicating overall conditions within the financial system, fell below the warning stage threshold (8.0) as it reached the lowest level (0) in June, the Financial Vulnerability Index (FVI),<sup>69)</sup> indicating the potential vulnerability in the financial system from medium- to long-term perspectives, remained higher than previous years.

65) A detailed explanation of financial stability conditions in 2021 can be found in the Financial Stability Report (Half-Yearly) published by the Bank of Korea. [June 2021 issue](#) and [December 2021 issue](#).

66) Please refer to Box II-1 Establishment of the Bank of Korea's Direction for Climate Change Response for further details.

67) The Bank has been holding its Financial Stability Meeting on a quarterly basis since 2017 in order for the Monetary Policy Board to evaluate financial stability conditions. In a bid to enhance communications related to its Financial Stability Meetings, the Bank distributes a press release and holds a press conference on the day of the meeting. Following the June and December meetings, the Bank submits a Financial Stability Report to the National Assembly on the day of its deliberation and approval, as per Article 96 (1) of the Bank of Korea Act.

68) The existing name "Financial Stability Index" was changed to the "Financial Stress Index" to match its actual assessment. The index refers to a composite index (0-100) calculated by standardizing 20 monthly indicators of six financial and real economy sectors (banks, financial markets, external economic conditions, the real economy, households, and corporations) that demonstrate financial conditions. It classifies financial conditions into three stages: normal, warning, or crisis. The "warning" stage means the nation is being influenced by internal and external shocks, but not to a significant degree, while the "crisis" stage means that internal and external shocks are having a significant influence on the nation. The "warning" and "crisis" stage thresholds are set at 8 and 22, respectively, using the "noise-to-signal ratio" method.

**Figure II - 5. Financial Stress Index (FSI) and Financial Vulnerability Index (FVI)**

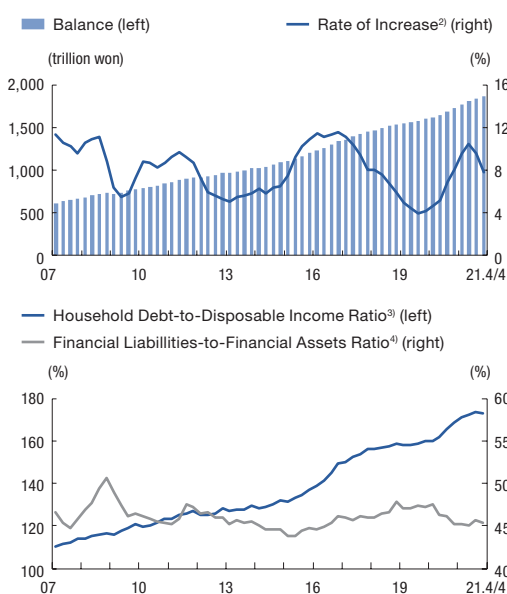


Source: Bank of Korea

The private credit-to-nominal GDP ratio, an indicator of the level of private sector leverage, recorded 220.8 percent (estimate) at the end of 2021, up by 7.1 percentage points from the same period in the previous year. This was attributable to further accelerated growth in private credit driven by increased household loans related to housing, rising demand for capital from companies following the resurgence of COVID-19, and the government's financial support measures, although nominal GDP growth expanded. Household credit greatly expanded both for home mortgage loans and other loans, influenced by the upward trends in housing sale prices and

leasehold deposit prices. Although household disposable income showed an improvement, the sustained high growth of household loans increased the debt-servicing burden on households. However, as the loan delinquency rate<sup>70)</sup> of households remained low, the soundness of household debt was solid.

**Figure II - 6. Household Credit<sup>1)</sup>**



Notes: 1) Household credit statistics basis.

2) Year-on-year basis.

3) Estimated figure for each quarter.

4) Based on the flow of funds statistics.

Source: Bank of Korea

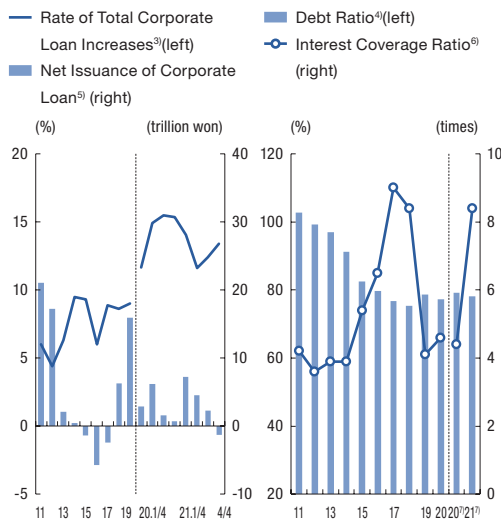
Corporate credit continued to exhibit its high growth rate due to the resurgence of the pandemic, rising raw material prices, in-

69) This refers to a composite index (0-100) calculated by standardizing 39 indicators related to the degree of financial imbalances, such as asset prices and credit accumulation, and financial institutions' resilience (record low and high set to 0 and 100, respectively, using the min-max method). This index determines financial stability situations from medium- to long-term perspectives by measuring the vulnerability of the financial system to shocks. Its increase (or decrease) indicates a situation where the extent of adverse effects on financial and economic conditions in the event of internal and external shocks can widen (or narrow) as the structural vulnerability of the financial system is heightened (mitigated) due to heightened (or mitigated) financial imbalances and weakened (or strengthened) resilience of financial institutions.

70) The loan delinquency rate of households at financial institutions (banks and non-bank financial institutions) fell from 0.65 percent at the end of the fourth quarter of 2020 to 0.52 percent at the end of the fourth quarter of 2021.

creased investment related to facilities and real estate, and the extension of financial support measures by policy authorities. On the other hand, as financial soundness in the corporate sector improved thanks to the recovery of earnings, the overall debt repayment capacity of companies showed a favorable trend.

**Figure II - 7. Corporate Credit<sup>1)</sup> and Financial Soundness<sup>2)</sup>**

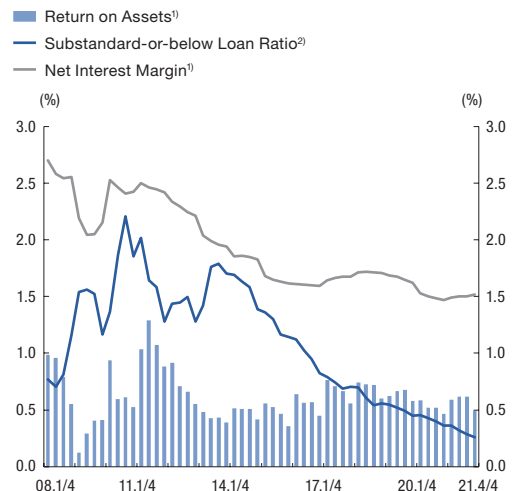


- Notes: 1) Based on loans to corporations (excluding financial and insurance companies) by deposit-taking banks (commercial banks, specialized banks, and foreign bank branches).  
 2) Based on a total of 2,218 companies, including listed and some unlisted companies, that submitted business reports.  
 3) Year-on-year basis.  
 4) Debt/equity, end-period basis.  
 5) Quarter basis (since 2020).  
 6) Operating income / Interest expenses.  
 7) Based on the third quarter of each year.

Sources: Financial institutions' business reports, KIS-Value

Financial institutions including commercial banks sustained favorable asset soundness under the influence of financial support and easing measures amid expanded asset growth, while their profitability also improved, spurred by rising interest income.

**Figure II - 8. Commercial Bank Asset Quality and Profitability**



- Notes: 1) Accumulated quarterly incomes annualized.  
 2) End-period basis.

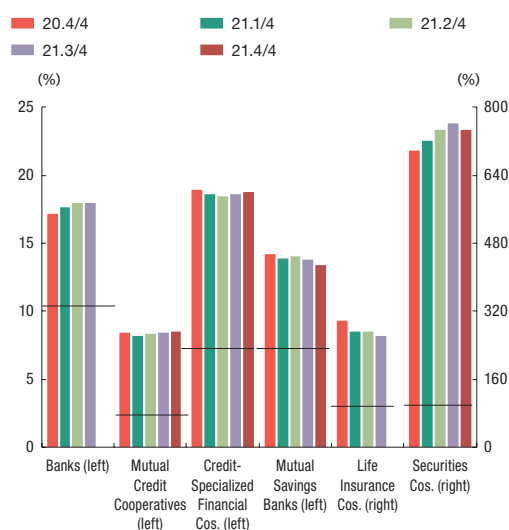
Sources: Financial institutions' business reports

Resilience generally remained solid as an indicator of the financial system's capacity to withstand domestic and external shocks. Specifically, capital ratios at commercial banks increased, and liquidity coverage ratios, which indicate the ability to respond to capital outflows, also exceeded regulatory standards at all banks. Non-bank financial institutions also saw an improvement in loan loss provision coverage ratios, while their capital ratios satisfied regulatory standards. The financial system's resilience is expected to remain at a favorable level in the future as well. However, given that a variety of financial support measures are scheduled to end amid rising lending rates, additional attention needs to be paid to the possibility that asset soundness and resilience will deteriorate, particularly at financial institutions with a higher proportion of loans from vulnerable borrowers whose rate of income improvement is relatively slow. Meanwhile, Korea's external payment capac-



ity generally maintained a favorable trend. Although the external debt-to-nominal GDP ratio increased due to the expansion of foreigners' investments in domestic bonds, the soundness of external debt remained favorable as the short-term external debt-to-official foreign reserves ratio was lower than in previous years.

**Figure II - 9. Financial Institutions<sup>1)</sup> Capital Adequacy Ratios<sup>2)3)</sup>**



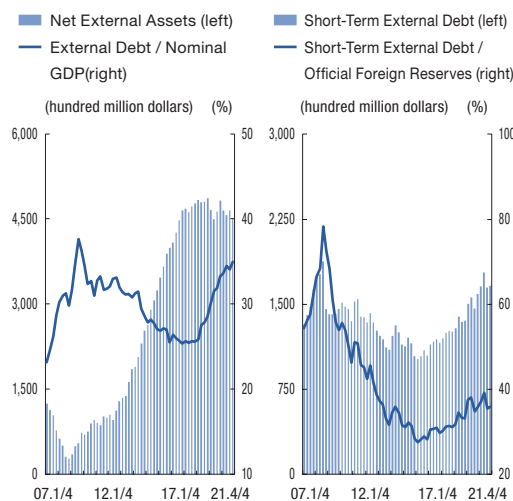
Notes: 1) Banks refer to commercial banks.

2) Total capital ratio of banks (10.5% for supervisory standard, 11.5% for D-SIBs), net capital ratio of mutual credit cooperatives (2%; 4% for MG community credit cooperatives and 5% for Nonghyup), adjusted capital ratio of credit-specialized financial companies (7%; 8% for credit card companies), BIS capital ratio of mutual savings banks (7%; 8% for banks with total assets of 1 trillion won or more), risk-based capital ratio of insurance companies (100%), and net capital ratio of securities companies (100%).

3) Dotted lines show supervisory standards.

Sources: Business reports from financial institutions

**Figure II - 10. External Debt-to-Nominal GDP Ratio<sup>1)</sup> and Short-Term External Debt-to-Official Foreign Reserves Ratio<sup>1)</sup>**



Note: 1) End-quarter basis.

Source: Bank of Korea

The Bank plans to further strengthen its efforts to preemptively capture financial stability risk factors stemming from changes in financial and economic conditions at home and abroad, such as the continuation of the COVID-19 pandemic, the end of financial support and easing measures, and monetary policy normalization in major countries. It will also closely examine the risk of insolvency, particularly among vulnerable borrowers during the normalization of accommodative financial conditions, as well as the potential for financial system instability to expand due to increased volatility in the financial market, adjustment of asset prices, and debt deleveraging in the event of internal and external shocks.



## Implementation of Joint Examinations and Discussions of Domestic and International Financial Stability

The Bank of Korea carried out joint examinations of financial institutions with an emphasis on the early detection of potential risks that have accumulated in the financial system and the possible materialization of risks while continuing to monitor vulnerable sectors.

The Bank normalized the frequency of examinations back to the levels of previous years, as they had been reduced during the COVID-19 pandemic, while conducting joint examinations of small and medium-sized banks that were excluded from the list of examinations for a long period, as well as large banks, in order to examine loan handling and the status of soundness management at banks. Through thematic examinations of household and corporate lending, the Bank also examined potential risk factors arising from the accumulation of household debt, the effects of the large-scale financial support that was implemented over the course of the pandemic response, and related risks. In particular, in response to changes in the structure of the banking industry caused by the expansion of digital finance, the Bank first conducted the examination of risks associated with online banks whose assets have expanded significantly centered around unsecured loans since their launch in 2017.

**Table II - 7. Bank of Korea's On-Site Joint Examination**

	(number)				
	2017	2018	2019	2020	2021
Thematic examination	4	3	4	-	2
General examination	2	2	2	2	4

Source: Bank of Korea

Furthermore, to ensure effective regular monitoring activities, the Bank established a data analysis system on corporate lending and then mitigated the burden of examination imposed on financial institutions through the expansion of pre-analysis based on micro-information, while improving feedback for joint examinations by holding briefing sessions to explain the examination results to financial institutions.

In addition, the Bank continued exchanges of information on financial stability issues and policy coordination by participating in a variety of consultative bodies at home and abroad. For instance, the Bank took part in the Macroeconomic Finance Meeting<sup>71)</sup> among domestic relevant agencies and the Consultative Group for Managing Household Debt to share its awareness of financial stability conditions and explore response measures alongside the government and supervisory authorities. Internationally, as a member of international standard-setting bodies, the Bank actively participated in discussions on global financial

71) This consultative body was created in July 2012 with membership comprised of deputies from a range of agencies, including the Bank of Korea, the Ministry of Economy and Finance, the Financial Services Commission, and the Financial Supervisory Service. Its regular and ad hoc meetings are chaired by the Vice Minister of Economy and Finance.

72) This is a set of new standards for bank capital regulations released in 2010 by the BCBS in the wake of the 2008 global financial crisis. Its main goals include enhancing the quality and transparency of capital through the subdivision of the existing BIS standards for capital regulations and the upward adjustment of the thresholds for each item, while simultaneously establishing regulations on buffer capital and leveraged investment. According to these standards, banks are required to meet the newly established capital soundness standards in phases from 2013 to 2019, and they were introduced in December 2013 for domestic banks.

regulations. The Bank participated in the Task Force on Evaluation, which was established to assess the implementation of Basel III<sup>72)</sup> under the Basel Committee on Banking Supervision (BCBS). The Bank also strengthened its activities in the general assembly and a working group of the Network for Greening the Financial System (NGFS),<sup>73)</sup> a forum of central banks and supervisory organizations on financial risks associated with climate change, and took part in the preparation of a report of the Macrofinancial Workstream, a working group dedicated to analyzing the effects of climate change on macroeconomics and finance. Moreover, the Bank attended the Meeting of Directors of Supervision of the South East Asian Central Banks (SEACEN) as a member institution of the Working Group on Banking Supervision (WGBS) and Supervisory Colleges<sup>74)</sup> organized by foreign supervisory authorities in major countries to discuss global financial supervision issues, while actively endeavoring to collect relevant information.

## B. Foreign Exchange Market Stabilization Measures

### Promotion of Improvements in the Foreign Currency Liquidity Management and Supply Facility

On Jan. 20, 2021, the Bank of Korea announced a plan to improve the foreign currency liquidity management and supply facility with a focus on alleviating foreign exchange vulnerabilities of non-bank financial institutions such as securities firms and insurers, which it devised in cooperation with the government and relevant authorities. In line with the plan, the Bank has worked on overhauling foreign exchange prudential regulations and enhancing the monitoring of foreign currency liquidity jointly with the government,<sup>75)</sup> and has strengthened cooperation with relevant authorities, including the examination of progress by the Foreign Exchange Prudential Council.<sup>76)</sup>

### Agreement with the U.S. Federal Reserve to Use the FIMA Repo Facility

On Dec. 21, 2021, the Bank of Korea agreed to use the Foreign and International Monetary

73) This is a voluntary forum established in December 2017 for the purpose of sharing best practices to manage financial risks related to climate and the environment, and for supporting the transition toward a sustainable economy. The Bank of Korea became a member in November 2019, and 83 central banks and supervisors had joined as of the end of December 2020.

74) This refers to a consultative vehicle for information sharing and supervisory cooperation in which supervisors from international financial institutions in the home and host countries participate to effectively regulate and supervise such institutions.

75) The Bank of Korea established a dedicated organization (Foreign Exchange Analysis System Improvement Section) to expand overseas investment data about non-bank financial institutions (pension funds, mutual aid associations, etc.) and to systematize monitoring, while reinforcing monitoring and analysis of non-bank financial institutions (July 2021).

76) As a consultative body among institutions in charge of macroprudential policy in the foreign exchange sector (Bank of Korea, Ministry of Economy and Finance, Financial Services Commission, and Financial Supervisory Service), it was established in line with a plan to improve the foreign currency liquidity management and supply facility, and its first meeting was held on July 6, 2021.

Authorities (FIMA) Repo Facility,<sup>77)</sup> introduced by the U.S. Federal Reserve, when necessary. Under the agreement, the Bank is allowed to borrow up to 60 billion dollars from the Federal Reserve through the FIMA Repo Facility at an interest rate of 0.25 percent per annum by using its holdings of eligible securities. The Bank plans to use the FIMA Repo Facility in the future when necessary circumstances arise, such as difficulties in securing U.S. dollar funding due to instability in the international financial market.

### C. Expansion of Multilayered Financial Safety Nets

#### Extension of the Currency Swap Agreement with Switzerland, Signing of a New Swap Deal with Turkey, and Expiration of the Currency Swap Deal with the U.S. Federal Reserve

The Bank of Korea continued its efforts to reinforce multi-layered financial safety nets by, for example, broadening currency swap networks with major central banks. First, while extending the currency swap agreement with the Swiss National Bank in March, the Bank of Korea added the provision of “facilitating the functioning of financial markets” to the purposes of the swap deal, in addition to the existing provision of “enhancing bilat-

eral financial cooperation”. The period of the deal was extended from three years to five years. In August, the Bank entered into a new bilateral local currency swap agreement with the Central Bank of the Republic of Turkey to expand trade and promote financial cooperation for economic development between the two countries. Meanwhile, the currency swap agreement of 60 billion dollars, which the Bank had signed with the U.S. Federal Reserve on March 2020 to resolve the shortage of foreign currency liquidity resulting from the spread of COVID-19 and to stabilize financial markets, expired at the end of December 2021 as scheduled in consideration of the fact that domestic and global financial and economic conditions had overcome the crisis and remained stable.

#### Improvement in the Effectiveness of Financial Safety Nets Across the Region

The Bank of Korea also strove to improve the effectiveness of financial safety nets across the region. The Bank actively participated in discussions about improving the Chiang Mai Initiative Multilateralisation (CMIM),<sup>78)</sup> a multilateral currency swap agreement between ASEAN+3 members, thereby contributing to the amendment<sup>79)</sup> of the CMIM Agreement, which took effect on March 31, to strengthen the short-term liquidity support function of

77) The FIMA Repo Facility refers to a system designed to supply U.S. dollar liquidity by allowing the U.S. Federal Reserve to purchase U.S. Treasury bonds held by foreign central banks under repurchase agreements. The system was temporarily launched on March 31, 2020, in response to the COVID-19 pandemic and later established as a permanent system on July 27, 2021.

78) ASEAN+3 countries launched the Chiang Mai Initiative Multilateralisation (CMIM) in March 2010 as the multilateral version of the Chiang Mai Initiative (CMI) in a bid to overcome the shortcomings of the existing CMI's bilateral swap agreements and to further strengthen its capacity to respond to crises. The CMIM reinforced the effectiveness of the regional financial support system.

79) Key points of the amendment include an increase in the non-IMF-linked portion (30 percent → 40 percent) in the absence of matching IMF-supported program that have been or will be introduced, and the institutionalization of the use of local currencies as well as the use of U.S. dollars for liquidity support.

the CMIM. In addition, as a co-chair central bank of the ASEAN+3 financial cooperation meeting,<sup>80)</sup> the Bank led consultations regarding follow-up measures following the amendment of the agreement. The Bank also actively participated in the CMIM test run,<sup>81)</sup> which was conducted to raise the CMIM's operational readiness and to regularly inspect its capacity to respond to financial crises across the region.

**Table II- 8. Current Status of Korea's Currency Swap Agreements**

Type	Counterparty	Maximum Amount (USD basis <sup>1)</sup> )	Most Recent Signing/ Extension	Maturity
Local Currency Swaps	USA	USD 60 billion	Jun. 2021	Dec. 2021
	Canada	No Maximum amount	Nov. 2017	Unspecified
	Switzerland	CHF 10 billion/KRW 11.2 trillion (about USD 10.6 billion)	Mar. 2021	Mar. 2026
	China	CNY 400 billion /KRW 70 trillion (about USD 59 billion)	Oct. 2020	Oct. 2025
	Indonesia	IDR 115 trillion/KRW 10.7 trillion (about USD 10 billion)	Mar. 2020	Mar. 2023
	Australia	AUD 12 billion/KRW 9.6 trillion (about USD 8.1 billion)	Feb. 2020	Feb. 2023
	Malaysia	MYR 15 billion/KRW 5 trillion (about USD 4.7 billion)	Feb. 2020	Feb. 2023
	UAE	AED 20 billion/KRW 6.1 trillion (about USD 5.4 billion)	Apr. 2019	Apr. 2022
	Turkey	TRY 17.5 billion / KRW 2.3 trillion (about USD 2 billion)	Aug. 2021	Aug. 2024
U.S. Dollar Swaps	CMIM	USD 38.4 billion <sup>2)</sup>	Jul. 2014	—

Notes: 1) Based on the exchange rates when the initial swap agreements or their extensions were concluded.

2) The total amount of CMIM is USD 240 billion, and Korea's contribution and the maximum amount it can draw is USD 38.4 billion (16%).

Source: Bank of Korea

## D. Operation of an Emergency Response System in Anticipation of Financial Instability Factors

The Bank of Korea reinforced its efforts to stabilize the financial market by regularly monitoring financial market conditions at home and abroad, while examining domestic and overseas financial market conditions as well as response measures, by operating an emergency response system in anticipation of the internal and external occurrence of financial instability factors.

At a time when the volatility of price variables in domestic and overseas financial markets has expanded due to the U.S. Federal Reserve's move toward monetary policy normalization, including the reduction of asset purchases, and the Chinese Evergrande Group's debt default, the Bank held meetings of its Monetary and Financial Task Force<sup>82)</sup> to closely monitor the movements of price variables, such as interest rates, stock prices, exchange rates, and inflows or outflows of foreign investment and comprehensively examine response measures. In addition, the Bank strengthened communication with the market by delivering a message of market stability in order to prevent the excessive spread of market anxiety.

80) This meeting is co-chaired by one of the 10 ASEAN countries and one of Korea, China and Japan in rotation every year. Korea and Brunei were the co-chairs of the meeting in 2021.

81) The CMIM test run conducted this year was its 12th round. This year's test run was carried out under a scenario where a virtual decision-making process was conducted for a fund withdrawal request for the purpose of testing the precautionary line.

82) The Monetary and Financial Task Force, led by the Bank's Senior Deputy Governor, consists of Deputy Governors in charge of monetary policy and international affairs and Director Generals of relevant departments. It comprehensively examines financial and foreign exchange market conditions in anticipation of financial instability factors at home and abroad.

## Box II-1.

### Establishment of Bank of Korea's Direction for Climate Change Response

The Bank of Korea has declared its commitments to playing a leading role in responding to climate change in its Medium- and Long-Term Strategic Plan BOK 2030. The declaration came as the Bank currently faces an urgent need to devise such response measures, considering the high possibility that climate change, which is now being perceived as a new type of risk, will affect not only financial stability but also long-term growth trends and price stability. To this end, the Bank made organization-wide efforts by setting up the Joint Task Force of Relevant Departments to Establish a Climate Change Response Strategy in April 2021, which will be overseen by the Deputy Governor of the Financial Stability Department and will constitute 10 departments at the Bank, including the Financial Stability Department.

Condensing the results of these efforts, the Bank established and announced the Bank of Korea's Direction for Climate Change Response<sup>83)</sup> in October 2021. The Bank set the following goals for its direction for climate change response: raise awareness of climate change among economic agents and strengthen the role of finance in facilitating the transition to a low-carbon economy, all while presenting response strategies by subdividing them into sectors, such as research & analysis, policy tools, organization & internal management, and exter-

nal cooperation & communication.

In the research & analysis sector, the Bank of Korea will begin assessing the economic impacts of climate change, including its influence on financial stability and monetary policy transmission channels. To this end, the Bank plans to establish channels to collect various pieces of information related to climate change issues, while setting up a statistical basis and expanding related statistics through cooperation with international organizations and domestic institutions. Next, the Bank will seek ways to utilize lending, payment and settlement systems and open market operations to encourage the smooth supply of funds to eco-friendly sectors. In particular, the Bank will consider the addition of Green Bonds<sup>84)</sup> to the scope of eligible collateral for lending facilities, as well as the expansion of the supply of green funds to small and medium-sized companies through the bank-intermediated lending support facility. In terms of the management of foreign exchange reserves, it is investing a part of its foreign exchange reserves in ESG assets and plans to continually expand such investments going forward.

Meanwhile, to ensure a systematic response to risks associated with climate change in the future, the Bank plans to set up a climate change organization dedicated to relevant research and analysis, monitoring of the international community's response to climate change, and relevant internal and external communications, while accumulating information and data related to climate change, and encouraging the specialization of relevant personnel. In addition, the Bank will establish its own target for reducing carbon emissions and review action plans for each

83) Report.

84) This refers to debt securities whose proceeds are used to finance projects with purposes of improving the environment, such as climate change mitigation and adaptation, natural resource conservation, biodiversity conservation, and pollution prevention/management.

sector. In terms of external cooperation & communication related to climate change, it plans to strengthen its capacity to gather relevant information by expanding its participation in global consultative bodies and contribute to raising the awareness of climate change risks among economic agents by disclosing research achievements and policy responses to the public.

**Table II - 9. Bank of Korea's Direction for Climate Change Response**

<b>Mission</b>	Supporting financial stability and sustainable economic growth	
<b>Objective</b>	<ul style="list-style-type: none"> <li>• Raising awareness of climate change risks among economic agents</li> <li>• Enhancing the role of finance in facilitating the transition to a low-carbon economy</li> </ul>	
<b>Response Strategy</b>	Research on climate change <ul style="list-style-type: none"> <li>• Strengthening research related to climate change</li> <li>• Expanding joint research and seminars</li> <li>• Expanding statistics related to climate change</li> </ul>	Invigorating green finance <ul style="list-style-type: none"> <li>• Lending facility</li> <li>• Payment and settlement system</li> <li>• Open market operations</li> <li>• Foreign exchange reserves management</li> </ul>
	Organization and internal management <ul style="list-style-type: none"> <li>• Setting up an organization dedicated to climate change</li> <li>• Conducting research on reducing the Bank's own carbon emissions</li> </ul>	External cooperation and communication <ul style="list-style-type: none"> <li>• Participating in domestic and global consultative bodies on climate change</li> <li>• Setting up a new section dedicated to climate change issues on the Bank's website</li> </ul>

Source: Bank of Korea

## QR BOX



### QR 1

Financial Stability Report  
(June 2021)



### QR 2

Financial Stability Report  
(December 2021)



### QR 3

BOK's Response to  
Climate Change

## 4. Currency Issuance

As the sole issuer of banknotes and coins as legal tender in Korea, the Bank of Korea is tasked with providing the public with currency services necessary for economic activities. In 2021, the Bank strived to ensure a stable currency supply in response to the continued high currency demand among the public, especially for 50,000-won banknotes, owing to the prolonged COVID-19 pandemic. It also issued four types of commemorative coins for national parks, which elicited positive responses from the public. In addition, the Bank made multifaceted efforts to create an environment in which the public can use currency with a sense of confidence and security by using various media channels to promote the prevention of counterfeit currency from entering into circulation and by selecting and rewarding those who contributed to the arrest of counterfeiters. It also made continuous efforts to remove damaged or mutilated currency from circulation in order to ensure the integrity of circulated currency and endeavored to maintain the soundness of the nation's currency circulation in close cooperation with financial institutions, the Korea Minting, Security Printing & ID Card Operating Corporation (KOMSCO), and other relevant institutions.

### A. Issuance

#### Responding to Currency Demand

In 2021, the Bank of Korea issued new currency amounting to a total value of 32.4 trillion won, while withdrawing 12.4 trillion won from circulation. Consequently, as of

year-end 2021, the value of currency in circulation totaled 167.6 trillion won, a significant increase of 13.6 percent from the end of 2020. By denomination, the amount of 50,000-won banknotes in circulation increased considerably compared to the end of 2020, while 1,000-won banknotes and coins showed a downward trend.

**Table II - 10. Banknotes and Coins Issued, Withdrawn and Outstanding by Denomination<sup>1)</sup>**

(hundred million won)

	2021			End of 2021 Outstanding
	Issuance (A)	Withdrawal (B)	Net Issuance (A-B)	
Banknotes <sup>2)</sup>	323,780	123,383	200,398	1,651,008 (13.8)
50,000 won	238,432	41,421	197,010	1,442,111 (15.8)
10,000 won	80,900	77,558	3,342	178,220 (1.9)
5,000 won	2,212	2,011	201	14,340 (1.4)
1,000 won	2,237	2,392	-155	16,156 (-1.0)
Coins <sup>2)</sup>	299	546	-248	24,711 (-1.0)
Total	324,079	123,929	200,150	1,675,719 (13.6)

Notes: 1) Figures in parentheses refer to percentage changes compared with the end of previous year.

2) Includes banknotes with denominations of 500 won or lower, coins with denominations of 5 won or lower, and commemorative banknotes and coins.

Source: Bank of Korea

KOMSCO produced and supplied the Bank with a total of 856.3 million individual banknotes and coins, consisting of 760 million banknotes and 96.3 million coins, up by 11.1 percent from the previous year. The number of banknotes increased by 20.6 percent, owing primarily to the increase in 10,000-won and 50,000-won notes, while the number of coins dropped by 31.4 percent, mainly due to the general decrease in demand for coins. The total value of the produced currency amounted to 27.3 trillion won, a significant increase of 56.4 percent year-on-year.



Table II- 11. Production of Banknotes and Coins<sup>1)</sup>

	Number (million)		Value (hundred million won)	
	2020	2021	2020	2021
Banknotes <sup>2)</sup>	630.0 (43.2)	760.0 (20.6)	174,600 (193.0)	273,200 (56.5)
Coins <sup>2)</sup>	140.4 (-49.9)	96.3 (-31.4)	76 (-32.1)	52 (-31.5)
Total	770.4 (7.0)	856.3 (11.1)	174,676 (192.5)	273,252 (56.4)

Notes: 1) Figures in parentheses refer to percentage changes compared with the end of previous year.





2) Excludes commemorative banknotes and coins.

Source: Bank of Korea

### Issuance of Four Types of National Park Commemorative Coins

On April 26, the Bank of Korea issued four new types of commemorative coins in the National Parks of Korea series, which was launched in 2017, one each for Sobaeksan, Dadohaehaesang, Taebaeksan, and Juwangsan national parks, with the aim of widely promoting the exquisite natural beauty of Korea and the importance of ecological preservation. These commemorative coins are scheduled to be issued as a series through to 2023.

Figure II- 11. Commemorative Coins Issued in 2021

Type	Design	Materials/ Specifications
Korean National Park, Sobaeksan		Copper 75% Nickel 25% Diameter 40mm Weight 26.0g
Korean National Park, Dadohaehaesang		Copper 75% Nickel 25% Diameter 40mm Weight 26.0g
Korean National Park, Taebaeksan		Copper 65% Zinc 35% Diameter 40mm Weight 26.0g
Korean National Park, Juwangsan		Copper 65% Zinc 35% Diameter 40mm Weight 26.0g

Source: Bank of Korea

## B. Circulation

### Raising Awareness to Deter Counterfeiting

The Bank of Korea conducted a variety of promotional campaigns to deter the production and circulation of counterfeit currency. It provided information on methods to identify counterfeit banknotes on its official website and social media channels, while utilizing online video advertisements as well as offline advertisements including leaflets and advertisements posted on public transportation, such as buses, high speed KTX trains, and subways, in addition to distributing the Check Counterfeit Banknote app. The Bank also hosted its eighth UCC Currency Protection Campaign Contest, granting prizes to 10 out of 98 entries in total. Furthermore, commendations were awarded on two occasions in the first and second halves of 2021 to four police



stations that contributed to the arrest of counterfeiters.

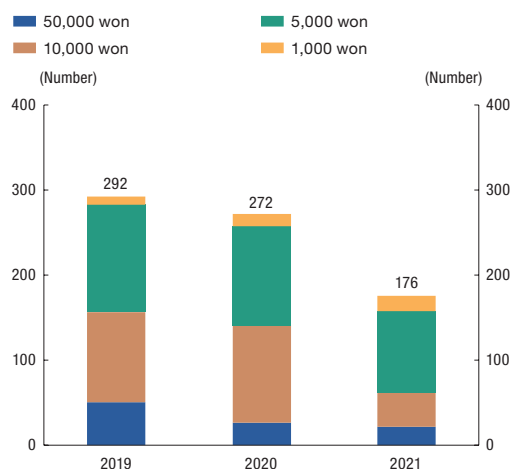
**Figure II - 12. Winners of the Youth UCC Contest for the Currency Protection Campaign (Nov. 10, 2021)**



Source: Bank of Korea

In 2021, a total of 176 counterfeit banknotes were discovered, a decrease of 96 from the 272 banknotes found in 2020, which marked the lowest since 1998 when related statistics were first published. This is mainly considered to be the result of the continued reinforcement of various promotional efforts by the Bank to enhance the ability of financial institutions and the public to detect counterfeit currency amid the sustained decline in the use of banknotes for face-to-face commerce stemming from the prolonged COVID-19 pandemic.

**Figure II - 13. Counterfeit Banknotes Detected**



Source: Bank of Korea

## Efforts to Enhance the Quality of Currency in Circulation

The Bank of Korea devoted its efforts to improving the quality of currency in circulation by destroying damaged or contaminated currency returned from financial institutions and individuals for being unsuitable for re-circulation. In 2021, a total of 403.5 million notes and coins, valued at 2.04 trillion won in total, were deemed unfit for recirculation and subsequently destroyed. By currency type, the destroyed currency was comprised of 344.2 million individual banknotes valued at 2.04 trillion won and 59.3 million individual coins valued at 5.7 billion won. Furthermore, in consideration of the COVID-19 situation, the Bank carried out contact-free promotional campaigns by distributing videos available via PCs and mobile devices as well as outdoor electronic billboards to promote the clean use of cash.

Figure II - 14. Promotional Video for the Clean Use of Cash



Source: Bank of Korea(<https://youtu.be/r7guXHTk1Dc>)

### Guarantee of the Right to Use Cash

Since 2020, the Bank of Korea has conducted promotional campaigns to guarantee the right to use cash to ensure that the use of cash is not excluded as a means of payment and settlement in commercial transactions. This is in response to the growing need to prevent those who are highly dependent on cash, including the elderly, from facing disadvantages such as constraints on consumption activities, especially amid the recent increase in cases where some restaurants or large supermarkets refuse to accept cash. In 2021, the Bank carried out public campaigns promoting the guarantee of the right to use cash by placing posters on subway platform screen doors and by publishing videos on online video platforms that can be accessed via both PC and mobile devices. The Bank plans to continue its activities to guarantee the right to use cash in order to prevent various adverse effects from arising due to Korea's advancement toward a cashless society, and to remind the public of the importance of allowing the use of cash as a payment method.

Figure II - 15. Poster Promoting the Guarantee of the Right to Use Cash



Source: Bank of Korea

Figure II - 16. Promotional Video for Guarantee of the Right to Use Cash



Source: Bank of Korea([https://youtu.be/wTG\\_OR26mUs](https://youtu.be/wTG_OR26mUs))

### C. External Cooperation

The Bank of Korea continued to enhance its cooperation with the Korea Customs Service, the Korean National Police Agency, KOMSCO, and the National Forensic Service through frequent information sharing and regular meetings on the trends and character-

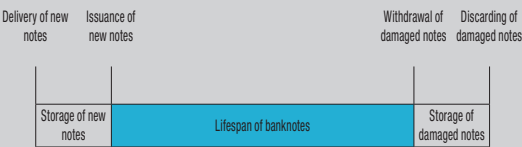
istics of currency counterfeiting as well as the detection of counterfeit banknotes. In addition, working together with a counterfeit expert group consisting of counterfeit detection specialists from various institutions, including the Korea Federation of Banks, the National Intelligence Service, and commercial banks, the Bank produced a financial education video for youths as well as a video on methods to identify counterfeit money in order to prevent the public from suffering any damages caused by currency counterfeiting. The Bank also analyzed the current methods and techniques of counterfeiting by examining counterfeit banknotes obtained from the Prosecutors' Office after the completion of relevant investigations and trials.

Box II-2.

Estimated Lifespans of Banknotes as of 2021

The lifespan of banknotes refers to the period of time from when newly-produced banknotes delivered to the Bank of Korea are issued through the official channels of the Bank until such notes are damaged to the point that they can no longer be used and returned via the official channels. The lifespan of banknotes depends on a number of factors, including the durability of the material, usage behavior of economic agents, and frequency of use. Accordingly, the lifespan of banknotes can be extended by reinforcing the physical durability of the banknote paper, improving usage behavior, or using them less frequently for transactions.

Figure II - 17. Lifespan of Banknotes



Source: Bank of Korea

The findings of a sample survey<sup>85)</sup> on the estimation of average banknote lifespan by currency denomination indicated that 1,000-won banknotes were estimated to circulate for 61 months, 5,000-won banknotes for 63 months, 10,000-won banknotes for 131 months, and

50,000-won banknotes for 178 months. The lifespans of lower denominations were relatively short compared to higher denominations because they are more frequently used for transactions between economic agents, such as purchase of goods and services and the giving of change. In particular, the lifespan of 50,000-won notes was the longest because they are used less frequently for transactions and are more often used as a store of value than other denominations.

The year-over-year comparison of the estimated lifespans of each denomination from 2019 to 2021 showed a steady increase for all denominations. This upward trend is mainly attributed to a decline in the use of cash due to an increase in the use of non-cash means of payment (e.g., credit cards, digital wallets, etc.) as well as the growth of online transactions.

Table II - 12. Comparison of Estimated Banknote Lifespans from 2019 to 2021

Denomination	(months)		
	2019	2020	2021
1,000 won	53	60	61
5,000 won	49	60	63
10,000 won	127	130	131
50,000 won	162	174	178

Source: Bank of Korea

Meanwhile, the lifespans of both Korea's lowest denomination (1,000 won) and middle denomination (10,000 won) notes were found to be longer than their counterparts in other major countries, while the lifespan of Korea's highest denomination note (50,000 won) was shorter. This is because 50,000-won banknotes are more widely used in actual transactions due to

85) This is a method of estimating the lifespan by extracting a sample of banknotes and tracking the delivery time using their serial numbers.

their lower purchasing power compared to the highest denominations in other major countries.

**Figure II - 18. Comparison of Banknote Lifespans in Major Countries<sup>1)</sup>**

(months)

Lowest Denomination		Highest Denomination	
Country or Region (Denomination)	Lifespan	Country or Region (Denomination)	Lifespan
US (USD 1)	79	US (USD 100)	275
Eurozone (EUR 5)	19	Eurozone (EUR 200)	142
UK (GBP 5)	23	UK (GBP 50)	492
Japan (JPY 1,000)	18	Japan (JPY 10,000)	54
Australia (AUD 5)	68	Australia (AUD 100)	330
Mexico (MXN 20)	50	Mexico (MXN 1,000)	110
Korea (KRW 1,000)	61	Korea (KRW 50,000)	178

Note: 1) The lifespans of middle denominations (months): U.S. (USD 20) 94, Eurozone (EUR 50) 50, U.K. (GBP 20) 113, Australia (AUD 20) 134, Japan (JPY 5,000) 18, Mexico (MXN 200) 51, Korea (KRW 10,000) 131.

Sources: Websites of central banks, etc

## QR BOX



### QR 1

Promotional Video for the Clean Use of Cash



### QR 2

Promotional Video for Guarantee of the Right to Use Cash

## 5. Payment and Settlement Business

The Bank of Korea operates BOK-Wire+, a real-time gross settlement (RTGS) system that processes large-value funds transfers, while providing intraday liquidity support to financial institutions suffering temporary shortages of settlement liquidity, as a means to encourage the smooth settlement of funds through the system. The Bank also oversees the domestic payment and settlement systems as a whole,<sup>86)</sup> and works to improve their operating processes in an effort to ensure their safety and efficiency. In addition, it strives to strengthen cooperation with international organizations in the field of payments and settlements.

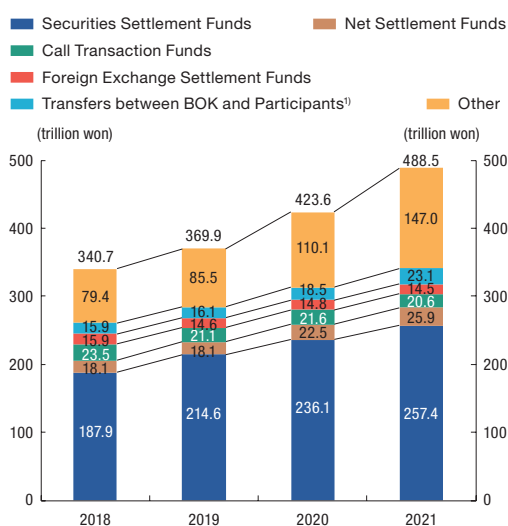
### A. Operation of BOK-Wire+

#### Continued Increase in the Amount of Korean Won Funds Transfers

Throughout 2021, the average daily value of Korean won funds transfers through BOK-Wire+ totaled 488.5 trillion won, up by 15.3 percent from 2020. By type of settlement funds, securities settlement funds continued their upward trend following the previous year, centered on inter-institutional repo transactions. Net settlement funds increased significantly compared to 2020, particularly in the banking network, including internet

banking. The amount of funds for call transactions switched to a decrease compared to the previous year as the effect of increasing call transactions wore off due to the termination of the temporary measure to increase the limits of call transactions for financial investment companies,<sup>87)</sup> which was implemented in 2020.

Figure II-19. BOK-Wire+ Funds Transfer Values (daily average)



Note: 1) Includes payments on government and public bond transactions, Treasury funds transfers, and BOK loans.

Source: Bank of Korea

#### Intraday Liquidity Support

In order to prevent the spread of settlement risks across BOK-Wire+ as a whole due to settlement delays caused by temporary liquidity shortages in participating institutions, the

86) This refers to the central bank's responsibility to conduct monitoring and regular or ad hoc assessments to enhance safety and efficiency in the payment and settlement systems, as well as to implement improvements in the systems as needed.

87) In March 2020, to ease concerns in the short-term money market caused by the COVID-19 pandemic, the government temporarily raised the call money borrowing limits of securities companies from 15 percent of capital to 30 percent, then readjusted the limits to 25 percent in May, 20 percent in June, and 15 percent in August. The call limits of asset management companies were also expanded from 2 percent of collective investment assets to 4 percent in March 2020, then readjusted to 3.5 percent in May, 3 percent in June, and 2 percent in August.

Bank of Korea supplies BOK-Wire+ participants with settlement funds to cover temporary intraday liquidity shortages. In 2021, the amount of the Bank's intraday liquidity provision averaged 3,492.1 billion won per day, up by 0.2 percent from 2020. Specifically, the amount of intraday overdraft support<sup>88)</sup> averaged 633.2 billion won daily, up by 5.0 percent from the previous year, while that of intraday RP<sup>89)</sup> was a daily average of 2,858.9 billion won, down by 0.8 percent from 2020.

**Table II - 13. Supply of Intraday Liquidity (daily average)**

	(billion won, %)			
	2019	2020	2021	Change <sup>2)</sup>
Intraday Overdrafts <sup>1)</sup>	432.1	603.0	633.2	5.0
Intraday Repos	2,618.1	2,883.2	2,858.9	-0.8
Total	3,050.2	3,486.2	3,492.1	0.2

Notes: 1) Based on average net intraday overdraft balance obtained after subtracting the balances of the deposit accounts used exclusively for settlement from the daily overdraft amounts.

2) A percentage change from 2020 to 2021.

Source: Bank of Korea

## B. Oversight and Risk Management

### Assessment of Financial Market Infrastructure

The Bank of Korea conducts assessments of systemically important payment and settlement systems by adopting international standards<sup>90)</sup> in the field of payments and settlements including the Principles for Financial Market Infrastructures<sup>91)</sup> (PFMIs),<sup>92)</sup> and recommends improvement measures to address any gaps or shortcomings. In 2021, the Bank conducted assessments of the central counterparties (CCPs) of exchange-traded securities and exchange-traded and OTC derivatives settlement systems operated by BOK-Wire+ and the Korea Exchange (KRX). The assessment results indicated that BOK-Wire+ complied with most of the requirements of the PFMIs, with some areas for improvement to be addressed soon. In addition, the payment and settlement system operated by the KRX was assessed to adhere to most of the PFMIs,

88) This refers to credit provided to banks by the Bank of Korea on the condition of intraday redemption, with the objective of addressing temporary intraday liquidity shortages.

89) To shift the BOK-Wire+ settlement of funds for securities transactions to an earlier time in the trading day, and to mitigate the concentration of settlement around closing time, a system for intraday liquidity support through the use of repo-type instruments was established on the condition of intraday redemption, targeting the Korea Exchange and financial investment companies.

90) As supplementary guidelines for the PFMIs, the CPMI-IOSCO has enacted additional international standards including the Guidance on Cyber Resilience for Financial Market Infrastructures in June 2016, Recovery of Financial Market Infrastructures in July 2017, and Resilience of Central Counterparties (CCPs): Further Guidance on the PFMIs in July 2017, as a means to reflect changes in the payment and settlement environment since the establishment of the PFMIs.

91) FPMIs refer to multilateral systems used by economic entities for purposes of making regular payments and clearing, settling or recording financial transactions. They consist of systemically important payment systems (PS), central counterparties (CCPs), central securities depositories (CSDs), securities settlement systems (SSSes), and trade repositories (TRs).

92) The PFMIs are the international standards for payment and settlement systems that were set and published in April 2012 by the Committee on Payments and Market Infrastructures (CPMI) of the BIS, in partnership with the International Organization of Securities Commissions (IOSCO). The PFMIs were established in response to major issues that had emerged due to the global financial crisis regarding the need for structural reforms of the over-the-counter derivatives markets and the strengthening of international standards for the operation of financial market infrastructure.

while requiring some improvements in areas such as the loss recovery system, margin management system, operational risk management, and cyber resilience.

### Joint Examinations of Payment and Settlement Activities of Financial Institutions

To review the appropriateness of financial institution payment and settlement activities, the Bank of Korea and the Financial Supervisory Service conducted joint examinations of three domestic banks and one financial investment company.<sup>93)</sup>

The results of the examination showed that they were properly managing their payments and settlements, including the management of their intraday liquidity and funds transfers. However, they were advised to improve the IT operations risk management system such as supplementing standards for reporting the occurrence of any system failure to the Bank, and to partially supplement systems to respond to liquidity crises, such as early warning indicators and stress tests.

### Stable Operation of the Net Settlement Risk Management System

In response to deteriorated financial market liquidity following the spread of COVID-19 in early 2020, the Bank of Korea temporarily lowered the collateral-to-net debit cap ratio for

guaranteeing net settlements of participant banks from 70 percent to 50 percent<sup>94)</sup> in April 2020. This measure resulted in reducing the total amount of securities for use as collateral that financial institutions were required to pay to the Bank.

As this temporary measure of lowering the collateral-to-net debit cap ratio expired at the end of January 2022, the Bank raised the ratio back to 70 percent starting on Feb. 1, 2022, and announced a plan to readjust the ratio upward in phases with the target of 100 percent by February 2025.

**Table II-14. Timeline for Raising Collateral-to-Net Debit Cap Ratio for Guaranteeing Net Settlements**

(%)

Aug. 2016	Aug. 2019	Apr. 2020	Feb. 2022	Feb. 2023	Feb. 2024	Feb. 2025
50	70	50	70	80	90	100

Source: Bank of Korea

The Bank consulted and agreed with the Financial Supervisory Service (FSS) on a plan whereby high-quality liquid assets measured as part of the liquidity coverage ratio (LCR) would include the amount posted as collateral minus the net debit cap utilization amount at the time of calculating the LCR.<sup>95)</sup> Accordingly, the FSS revised the Enforcement Rules of the Banking Supervision Regulations.<sup>96)</sup> The revision greatly reduced the collateral provision burden on financial institutions,<sup>97)</sup> which

93) During 2021, the Bank of Korea conducted only one joint examination of financial investment companies due to the spread of COVID-19, whereas one is ordinarily conducted three times a year. Instead, the Bank reinforced the non-face-to-face monitoring activities for settlement risk management by such companies.

94) The PFMLs require a collateral ratio (100%) that is sufficient to fully cover credit exposures.

95) This refers to the proportion of high-quality liquid assets to total net cash outflows, which indicates a bank's capability to fund sudden liquidity outflows over a 30-day period.

96) The FSS revised the Enforcement Rules of the Banking Supervision Regulations (effective Feb. 1, 2022), whereby business reports were amended for banks to include unused collateral securities for guaranteeing net settlements provided to the Bank of Korea in their high-quality liquid assets at the time of calculating the LCR.

97) As of November 2021, the amount recognized as high-quality liquid assets in the LCR stood at 26.4 trillion won, implying a 5.8 percentage point increase in the LCR of domestic banks.



faced a higher collateral-to-net debit cap ratio for guaranteeing net settlements.

### C. Improvement of Payment and Settlement Systems

#### Strengthening of Research on CBDCs

The Bank of Korea stepped up its technical and institutional research on central bank digital currencies (CBDCs) in anticipation of the potential adoption of a CBDC.

First, as part of an effort to secure the relevant technological foundation, external consulting was conducted for a period from November 2020 to March 2021 to prepare detailed procedures for handling CBDC-related businesses and to define related system-building requirements. Based on the consultation results, a CBDC simulation study has been conducted in two phases since August 2021. In the first-phase pilot test on CBDCs conducted between August and December 2021, the Bank created a cloud-based virtual testing environment and implemented the basic functions of a CBDC, including its manufacturing, issuance, circulation, redemption, and disposal. In the second-phase pilot test, scheduled to be carried out from January to June 2022, the Bank will put in place more advanced functions, such as offline payments,<sup>98)</sup> digital asset transactions, and cross-border transfers, while

exploring the possibility of applying new information technology, including enhanced protection of private information.

Next, the Bank continued to study various institutional issues that are expected to arise with the adoption of a CBDC. First of all, it thoroughly analyzed the progress on global discussions about major issues related to CBDC adoption, such as design and operation methods, and expected spillovers,<sup>99)</sup> while strengthening its research jointly with members of academia into the impacts of CBDC adoption on the Bank's major duties and responsibilities, such as monetary policy and financial stability. Furthermore, a legal advisory group consisting of external experts was formed to examine the direction and scope of any necessary amendments to the Bank of Korea Act,<sup>100)</sup> while a technology advisory group was set up to investigate technical issues, such as expanded functions of a distributed ledger. In addition, the Bank made efforts to enhance communication with academia, the financial sector, and IT companies that show keen interest in the adoption of a CBDC,<sup>101)</sup> and continued information exchanges and cooperation with international organizations and other central banks.

The Bank of Korea will continue to preempt and strengthen the foundation for the possibility of CBDC adoption in order to ensure that the issuance of such a digital currency

98) Offline payments refer to the function of transfers of payment using a CBDC in situations when computer devices (such as mobile devices, IC cards, etc.) of both the sender and the recipient are not connected to the internet.

99) The Bank of Korea newly established a Digital Currency Trends Analysis Section under the Payment & Settlement Systems Department in July 2021 in order to continuously expand the dedicated organization and personnel for strengthening research on CBDCs. Meanwhile, it published "Trends in Global Discussions on Major Issues Related to CBDCs (January 2022)," which compiled on-going global discussions about digital currencies for each issue.

100) The Bank of Korea published "Legal Issues Related to CBDCs and the Enactment and Revision of Related Laws and Regulations (January 2021)," which compiled the results of a study commissioned to an external agency.

101) The Bank of Korea held a briefing session on CBDC development for financial institutions and IT companies in November 2021, along with the Payment and Settlement System Conference (<https://youtu.be/qgfMOuyEt0k>) in November 2021 under the theme of major issues related to CBDCs and challenges faced by central banks.

would take place smoothly upon the maturity of relevant conditions.

### Expansion of Financial Inclusion by Improving ATM Utilization Methods

To minimize any inconvenience in consumer access to cash, the Committee on Financial Informatization Promotion (CFIP)<sup>102)</sup> is working with the financial sector to enhance the accessibility and usability of the ATM system as infrastructure to support cash access.

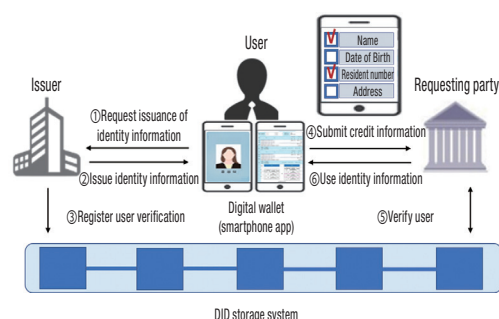
In November 2021, the FIN MAP service<sup>103)</sup> was launched in the format of a mobile app that provides consumers with ATM-related information, based on a database that integrates detailed data about the current status and operation of ATM networks. In addition to the FIN MAP, a website for analysis of financial institutions was developed to assist providers of ATM terminals in developing operational strategies and to devise policy alternatives. The launch of the FIN MAP service is expected to elevate customer access and usage of ATMs, while the website for the analysis of financial institutions will facilitate the efficient operation of ATMs in the financial sector.

### Standardization of Decentralized ID-based Digital Authentication System

The CFIP established the Service Employment and Sharing Scheme Using Decentralized Identity in December 2021. Decentralized ID (DID) is a distributed ledger technology-

based digital identity system that allows users to store personal information (names, national registration numbers, residential addresses, etc.) in a digital wallet in the form of a smartphone app. When ID verification is required, the user can select and present only the specific piece of information requested.

Figure II - 20. Overview of DID Service



Source: Bank of Korea

This standard defines the service model, function requirements, and procedures for issuing and submitting identity information for financial institution reference when they establish a system for DID services in the financial sector. With the set standards now in place, the financial sector will be able to ensure the interoperability of DID services, prevent duplicate investment, and facilitate the use of DID services.

102) Originally formed in September 1984 as the Committee on Financial Computerization and chaired by the Governor of the Bank of Korea, the CFIP spearheaded the establishment of major interbank shared networks, such as the CD/ATM System and the Interbank Funds Transfer System. In November 2009, it was restructured to be chaired by the Senior Deputy Governor of the Bank of Korea, and given its current name. As of the end of 2021, 32 financial institutions and related organizations, along with the Bank of Korea, participate in the CFIP, which oversees the working committee for the selection of joint projects for financial informatization and prior deliberation on financial standardization.

103) These services are available on account info apps and mobile cash card apps provided by the financial sector.

## Establishment of Guidelines for Managing Off-site Data Storage in the Finance Sector

The CFIP established the Guidelines for Managing Off-site Data Storage in the Finance Sector in December 2021. As part of the measure to ensure the secure storage and management of important financial data against disasters with wide-ranging effects, these guidelines were developed to provide instructions regarding the dispersion of financial data<sup>104)</sup> of financial institutions. To this end, the guidelines describe the matters necessary for the off-site management of important financial data by dividing them into three categories: data dispersion policy, management of dispersed data in phases, and security & operation of dispersed storage facilities. In addition, they set a required physical distance of at least 100 km to be secured between a dispersed storage facility and the IT center of a financial institution in anticipation of the possibility that both facilities could be destroyed simultaneously due to risk factors such as earthquakes, nuclear accidents, or terrorist attacks. The guidelines also include information management standards and building protection requirements.

### D. International Cooperation

As a member of the BIS Committee on Payments and Market Infrastructures (CPMI), the consultative body that sets international standards for payments and settlements, the

Bank of Korea continued to participate in discussions about major global payment and settlement issues. In particular, the Bank participated in the CPMI's practical work to improve the high-cost, low-efficiency structure of cross-border payments, thereby identifying trends in related discussions and establishing countermeasures.

In addition, as an increasing number of central banks have recently been adopting fast payment systems based on real-time gross settlement (RTGS), it is expected that cross-border linkages among faster payment systems will be gradually promoted based on the RTGS method. As a way of preparing for potential cross-border linkages among payment systems and enhancing the overall safety of payment and settlement systems such as the reduction of credit risk, the Bank is examining the option of establishing an RTGS-based fast payment system.

Meanwhile, it actively engaged in the CPMI-IOSCO meetings to discuss the supervision and regulation of financial market infrastructures (FMIs) and of stablecoins<sup>105)</sup> that are highly likely to be used as a means of payment. The CPMI-IOSCO considered stablecoin arrangements to be FMIs and announced a measure to apply the PFMI regarding payments and settlements to stablecoin arrangements. As a member of the CPMI, the Bank of Korea took part in the discussions about the preparation of this report.

By participating in international discussions about payments and settlements, the Bank

104) Dispersion refers to distributing data concentrated in a specific area to improve data resilience. The dispersion cycle (day, week, month, etc.) is determined according to the recovery point objective, and the copied data is separately stored in an off-site location based on the cycle.

105) Unlike existing crypto assets such as Bitcoin, which have high price volatility, stablecoins are stable since they are backed by reserve assets such as currency, goods, etc., or issued in a way that their value is controlled by an underlying asset algorithm. Global interest in stablecoins grew as the Libra Association, led by Facebook, announced a plan in June 2019 to issue a stablecoin called "Libra" that could be widely used across many countries.

will make efforts to understand and respond to the discussions on international standards for monitoring payment and settlement systems in a timely manner.

## QR BOX



### QR 1

Payment and Settlement  
System Conference

## 6. Foreign Exchange and International Cooperation

### A. Foreign Exchange

#### Efforts to Stabilize and Advance the Foreign Exchange Market

In 2021, global financial markets saw frequent spikes in market volatility for various reasons, including a movement to normalize monetary policy by central banks of major countries amid the impact of the prolonged COVID-19 pandemic due to the emergence of new COVID-19 variants. Under these circumstances, the Bank of Korea closely monitored effects of risk factors in global financial markets on the domestic foreign exchange sector, specifically the USD/KRW exchange rate, while conducting market stabilization measures in a timely manner together with the government as needed. Also, the details about net foreign currency transactions by foreign exchange authorities from the fourth quarter of 2020 to the third quarter of 2021 were announced on a quarterly basis.

Table II - 15. Net Transactions by Foreign Exchange Authorities<sup>1)</sup>

(hundred million USD)

Stage	Period	Amount
First Stage (semiannual)	2H of 2018	-1.87
	1H of 2019	-38.00
Second Stage (quarterly)	3Q of 2019	-28.70
	4Q of 2019	0.00
	1Q of 2020	-58.51
	2Q of 2020	-3.45
	3Q of 2020	0.00
	4Q of 2020	115.43
	1Q of 2021	-1.03
	2Q of 2021	0.00
	3Q of 2021	-71.42

Note: 1) The Bank of Korea has publicly disclosed the details of its market stabilization measures since March 2019 as a means to reduce potential market misunderstanding about the operation of its foreign exchange policy and to raise the credibility of such policy, in line with the Plan to Enhance the Transparency of Foreign Exchange Policy that was established by the Bank in cooperation with the government in May 2018 (In the first stage, the details of net foreign exchange transactions by foreign exchange authorities were disclosed on a semi-annual basis until the first half of 2019, and in the second stage, the announcement interval was reduced to a quarterly basis from the third quarter of 2019.)

Source: Bank of Korea

In addition, the Bank of Korea worked with the government to develop measures to advance and vitalize the nation's foreign exchange market, as follows.

First, the "Seoul Code of Conduct: Guidelines for Foreign Exchange Trading Activities" was revised by the Seoul Foreign Exchange Market Committee in December 2021, with an aim to lay a foundation for the introduction of electronic trading in the customer market<sup>106)</sup> using an application programming interface (API).<sup>107)</sup> The revision was conducted in con-

106) Under the existing method, customers such as companies traded foreign currencies after receiving quotations for exchange rates from banks' customer dealers through verbal confirmation (telephone, messenger, etc.). The introduction of electronic trading will enable customers to trade foreign currencies while checking real-time quotations on an electronic trading platform. Hana Bank conducted electronic trading using the API for the first time on Dec. 29, 2021.

107) This refers to a standardized method that enables various foreign exchange trading systems to share information such as quotations, trading volume and trading time, as well as to execute trades.

sideration of the trend of digitalization of the global foreign exchange markets and the need to enhance the competitiveness of domestic market players and the transparency of foreign exchange markets, and is expected to contribute to the quantitative and qualitative growth of the domestic foreign exchange market.

Second, in an effort to activate trading in USD/KRW spot markets, a leading bank scheme was introduced in the foreign exchange market in December 2021. Under the scheme, foreign exchange authorities will select leading banks that make contributions to the vitalization of USD/KRW spot markets and provide incentives such as the formation of a council for policy advice and opinion gathering and exemption from the macroprudential stability levy.

Finally, in December 2021, a plan was announced to improve the exemption policy for the macroprudential stability levy for market makers of the CNH/KRW direct trading market in Seoul in order to fulfill its intended purposes, such as diversification of settlement currencies for export and import companies and the promotion of won-yuan trading. Foreign exchange authorities will implement this improvement measure after the revision of the Foreign Exchange Transactions Regulations to reflect the preferential treatment toward actual demand-based trading performance in the customer market when calculating deductions related to won-yuan trading amounts.

## Improvement of the Foreign Exchange Transaction System

The Bank of Korea introduced an online review system for foreign exchange transactions<sup>108)</sup> in November 2021, which allows foreign exchange transactions to be reported online without the need to visit the Bank of Korea in person, thereby enhancing convenience for the public and the efficiency of the handling of reports.

Furthermore, in 2021 the Bank participated in meetings with institutions regarding the improvement and innovation of foreign exchange systems, where it actively made a range of proposals, and made continuous efforts to alleviate regulations such as expanding reporting exemptions and easing the reporting cycle for offshore financial companies.<sup>109)</sup>

## B. Reserves Management

The Bank of Korea manages the national foreign exchange reserves, which are comprised of the country's external payment reserve assets of last resort, based on the principle of enhancing profitability while placing a top priority on securing safety and liquidity. In order to preserve the value of its invested assets, the Bank places tight restrictions on investing in non-investment-grade bonds and thus bonds with a rating of A or higher accounted for 96 percent of its bond holdings as of the end of 2021. The Bank maintains a high level of liquidity in its foreign exchange

108) For detailed information, please refer to BOX II-3 Bank of Korea's Online Review System for Foreign Exchange Transactions.

109) From Jan. 3, 2022, the reporting is exempted in cases where the payment is made after offsetting the costs incurred from domestic litigation or arbitration between a resident and a non-resident. Also, the reporting interval for investments by offshore financial companies is extended from a quarterly basis to a semiannual basis, which is implemented to promote the liberalization of foreign exchange transactions.

reserves by investing its foreign exchange reserves in assets that can be promptly liquidated in global financial markets in the event of escalating uncertainty. Meanwhile, it also endeavors to enhance profitability by employing effective investment strategies such as flexibly adjusting the composition of currencies and instruments in response to changes in global financial markets.

### Scale and Composition of the Foreign Exchange Reserves

As of the end of 2021, Korea's foreign exchange reserves totaled 463.1 billion dollars, up by 20 billion dollars from the end of the previous year. The country's foreign exchange holdings, which include securities and deposits and account for the majority of its foreign exchange reserves, amounted to 438.3 billion dollars, up by 8.2 billion dollars from the previous year-end. Its Special Drawing Rights (SDRs)<sup>110)</sup> and IMF position recorded 15.4 billion dollars and 4.6 billion dollars, respectively, while it held 4.8 billion dollars in gold, the same level as at the end of 2020.

**Table II - 16. Composition of Foreign Exchange Reserves (as of year-end)**

	2019	2020(A)	2021(B)	Change(B-A)
(million USD)				
Foreign exchange reserves	408,816	443,098	463,118	20,020
Foreign exchange	397,876	430,117	438,319	8,202
SDR	3,352	3,371	15,370	11,999
Reserve position in IMF	2,793	4,815	4,635	-180
Gold	4,795	4,795	4,795	0

Source: Bank of Korea

### Tranching Reserve Assets

The Bank of Korea separates its foreign exchange reserves into a short-term liquidity tranche and an investment tranche, in accordance with the purpose of holding each tranche. The investment tranche is divided into an internally-managed tranche and an externally-managed tranche.

The short-term liquidity tranche is invested principally in short-term financial instruments, such as short-term treasury bonds and deposits, since they incur minimal transaction costs and can be liquidated immediately for timely responses to frequent influxes and outflows of foreign exchange, or to temporarily rising demand for foreign exchange faced by the Bank in its operation of the foreign exchange reserves.

In order to obtain stable profits while ensuring a high level of liquidity, the Bank invests its internally-managed investment tranche in short- and long-term bonds, such as government bonds, agency bonds, corporate bonds and Asset-Backed Securities (ABSs), which are denominated in major foreign currencies. In cases where the balance of the short-term liquidity tranche shows significant change in its size owing to flows in and out of the foreign exchange reserves, the Bank transfers foreign exchange reserves between the two tranches in order to appropriately adjust the size of tranches.

The externally-managed investment tranche, comprising of bonds and stocks, is entrusted to the Korea Investment Corporation (KIC) and to major domestic and international asset management companies to

110) The IMF conducted a general allocation of SDRs equivalent to 650 billion dollars in order to overcome the COVID-19 crisis and boost global liquidity, and Korea was allocated approximately 11.7 billion dollars on Aug. 23, 2021, which is equivalent to its quota of 1.8 percent.

enhance profitability by using their market expertise and through the diversification of investment methods.

### **Active Response to Expanded Volatility in Global Financial Markets**

Global financial markets saw their volatility expanding significantly in the first half of 2021 due to a spike in interest rates owing to inflation concerns resulting from the recovery in consumption and supply bottlenecks, especially as stock prices surged on the effect of the economic recovery facilitated by large-scale economic stimulus packages and accommodative monetary policy measures. Under these circumstances, the Bank of Korea established various investment strategies by conducting the analysis of international financial markets and the global economy, while making efforts to enhance the effectiveness of its management of foreign exchange reserves.

In the second half of the year, high volatility continued as interest rates fluctuated with a mix of downward factors such as the spread of COVID-19 variants and growing uncertainty regarding the Chinese real estate sector, and upward factors such as concerns about prolonged inflation. The Bank of Korea managed its foreign exchange reserves to adjust its asset tranches in keeping with these trends in global financial markets.

With regard to the tranches, the size of the short-term liquidity tranche for securing liquidity remained at last year's level. Within the investment tranche, the proportion of the internally-managed investment tranche contracted, affected by stock price hikes in major countries, while that of the externally-managed investment tranche expanded. At the end of 2021, 5.2 percent of the Bank's foreign

exchange reserves were managed in the short-term liquidity tranche, 72.0 percent in the internally-managed investment tranche, and 22.8 percent in the externally-managed investment tranche.

As for the currency composition, the proportion of U.S. dollar holdings increased compared to the previous year as the U.S. dollar strengthened due to favorable U.S. economic indicators and heightened expectations of early normalization of monetary policy by the U.S. Federal Reserve.

In terms of asset classes, the Bank slightly reduced the share of its holdings in deposits, and agency bonds, corporate bonds and ABSs among securities. However, it increased the share of its equity holdings by reflecting the improved investor sentiment driven by robust business performance and solid economic indicators.



**Table II - 17. Percentage Shares in Foreign Assets<sup>1)</sup> (as of year-end)**

	2019	2020(A)	2021(B)	Change(B-A)
(%, %p)				
1. By purpose				
Short-term liquidity tranche	4.6	5.1	5.2	0.1
Investment tranche				
Internally managed	74.6	73.9	72.0	-1.9
Externally managed	20.8	21.0	22.8	1.8
2. By currency				
U.S. dollars	69.1	67.7	68.3	0.6
Others	30.9	32.3	31.7	-0.6
3. By asset class				
Deposits	5.0	7.1	6.9	-0.2
Securities				
Government bonds	44.6	44.5	44.9	0.4
Agency bonds	15.8	14.4	14.1	-0.3
Corporate bonds	13.4	13.6	12.9	-0.7
ABS	12.5	11.5	10.8	-0.7
Equities	8.7	8.9	10.4	1.5
Total	100.0	100.0	100.0	-

Note: 1) This table is a break-down of the "foreign exchange" item in Table II - 16, showing assets that are owned by the Bank of Korea.

Source: Bank of Korea

### Continued Efforts to Enhance the Profitability of Foreign Exchange Reserves and Improve Their Management System

The Bank of Korea expanded the share of its holdings in risky assets such as stocks in response to the potential decline in the rate of return on foreign exchange reserves due to an increase in interest rates, while increasing the share of its holdings of Treasury bonds and improving performance through a hedging strategy adopted to actively respond to market risks such as interest rates and foreign exchange rates, with an aim to enhance both profitability and safety simultaneously.

In addition, efforts are being placed into enhancing the efficiency of foreign exchange reserves management through continued attempts to improve the current asset allocation system, such as reviewing models for the currency composition of foreign exchange reserves, adopting a rebalancing system between the internally-managed tranche and the externally-managed tranche, and examining the introduction of new financial instruments such as corporate bond ETFs.

### Strengthening of the Risk Management of Foreign Exchange Reserves

The Bank of Korea strengthened the risk management of its foreign exchange reserves in response to increased volatility in global financial markets due to the prolonged COVID-19 pandemic.

The Bank devised a risk management strategy for its foreign exchange reserves in anticipation of various predicted scenarios in order to flexibly respond to changes in market conditions, while improving the crisis response process in the foreign exchange reserves management system as a means to ensure a flexible and swift response to changes in investment conditions.

The Bank expanded the range of transactions subject to collateral management regarding foreign exchange reserves management as a way to strengthen the management of credit risks, and boosted the efficiency of operational and risk analysis by computerizing the management of various risk limits and indicators.

In addition, market and credit risks were appropriately managed through stress tests under hypothetical crisis situations, and settlement risk factors were evaluated through the maintenance of emergency plans for fund

settlements and accounting-related tasks.

### Elevating the Capabilities of Domestic Financial Companies and Supporting the Development of the Finance Industry

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The Bank of Korea has been enhancing the capabilities of domestic financial companies and actively supporting the development of the domestic finance industry by selecting domestic financial institutions as trading partners and external asset management companies to manage its foreign exchange reserves.

In 2021, the Bank conducted transactions of foreign bonds with five domestic securities companies in the course of its internal management of foreign exchange reserves, while entrusting parts of its investment in Chinese equities (590 million dollars) and equities in advanced countries (1.56 billion dollars) to four domestic asset management companies.

**Table II- 18. Use of Domestic Financial Institutions in Reserves Management**

Classification	Product	Institutions <sup>1)</sup>	Size	Date of Commencement
Transactions of foreign currency-denominated bonds	Government bonds, agency bonds, corporate bonds	Securities companies (5)	3.7 billion dollars <sup>2)</sup>	January 2018
External management of equities	Chinese equities	Asset management companies (3)	590 million dollars <sup>3)</sup>	June 2012
	Advanced countries equities	Asset management companies (3)	1.56 billion dollars <sup>3)</sup>	April 2019

Notes: 1) Numbers in parentheses refer to the number of trading-eligible institutions.

2) Amount of transactions in 2021.

3) Entrusted amount.

Source: Bank of Korea

The Bank plans to expand the entrusted amount and the pool of external asset management institutions in consideration of the management capabilities by domestic financial institutions, while continuously promoting the use of such domestic financial institutions by expanding the scope of assets under their management and diversifying related strategies.

### Establishing the Basic Direction for ESG Asset Management and Increasing Investment in ESG Assets

The Bank of Korea has been gradually expanding its range of ESG investments<sup>111)</sup> since it began to invest in ESG stocks as externally-managed assets in December 2019 in a bid to meet the demand for public accountability as the nation's central bank and improve the profitability of foreign exchange reserves.

In 2021, the basic direction was established and announced for the management of ESG assets through foreign exchange reserves. As part of efforts to diversify assets for foreign exchange reserves, the Bank set up a roadmap for a gradual upgrade whereby ESG elements will be broadly applied to foreign exchange reserves as a whole from the current stage of investing in ESG instruments.

As of the end of 2021, in terms of ESG-related assets, ESG-related bonds including Green Bonds amounted to 5.82 billion dollars among the internally-managed assets, while the amount of ESG-themed stock and bond funds reached 3.20 billion dollars among the externally-managed assets.

111) This refers to a kind of investment method that considers non-financial aspects, such as environmental, social, and governance categories, along with financial factors, in the course of investment decision-making.

**Table II - 19. Investment in ESG-related Assets  
(as of year-end)**

(hundred million USD)

Management Instruments	Size <sup>2)</sup>		
	2020 (A)	2021 (B)	Change (B-A)
Internal Bonds	34.9	58.2	23.3
External <sup>1)</sup> Equities	10.8	17.9	7.1
Bonds	8.9	14.1	5.2
Total	54.5	90.2	35.7

Notes: 1) Based on ESG-themed funds.

2) Based on market value.

Source: Bank of Korea

### Strengthening International Cooperation on Foreign Exchange Reserves Management

The Bank of Korea enhanced its international cooperation by continuing to take part in discussions about issues related to foreign exchange reserves management with international organizations and overseas central banks.

While participating in the newly-launched BIS Asia Green Bond Fund to support eco-friendly financial investment among regional central banks, the Bank continued to cooperate with international organizations, for example receiving advice from the World Bank on ESG asset management and application methods for a central bank.

In addition, the Bank exchanged opinions about recent trends in the management of global foreign exchange reserves during conference calls with the German Finance Agency and the Australian Office of Financial Management (AoFM), while providing employees of central banks in Colombia and Kenya with an opportunity to learn from the Bank's experiences of foreign exchange reserves management.

## C. International Cooperation

Through global cooperation channels, the Bank of Korea quickly identified and responded to the rapidly-changing global economic and financial conditions and policies in major countries after the spread of COVID-19. It also fulfilled Korea's responsibilities in line with its elevated international status and continued to actively carry out bilateral and multilateral cooperation in consideration of the heightened importance of international cooperation amid the COVID-19 crisis, the expansion of finance digitalization, and the acceleration of climate change.

### Active Participation in Global Policy Coordination

The Bank of Korea participated actively in global discussions to coordinate policies at international organizations and consultative bodies, through which it voiced Korea's position while contributing to the formulation of policy responses to address global financial issues.

At the BIS Bimonthly meetings (on six occasions), and at the IMF and World Bank Group meetings (on two occasions), the Bank took active part in discussions related to medium- and long-term policy challenges and financial and economic issues such as monetary policy normalization and the global economic outlook. Through these meetings, the Bank strove to reflect Korea's position during the policy coordination process of the international financial community. In particular, it participated in the BIS Board of Directors, which is essentially the top decision-making body of the BIS, contributing to determining the medium- and long-term strategy and pol-

icy direction of the BIS, and helped in quickly identifying economic and financial issues in major countries and strengthening policy co-operation and coordination.

In collaboration with the Korean government, the Bank also participated in G20 meetings of finance ministers and central bank governors (on four occasions) and those of deputy finance ministers and central bank deputy governors (on seven occasions). At those meetings, the Bank discussed issues such as responding to COVID-19, the recovery of the global economy, the Debt Service Suspension Initiative (DSSI), and the Common Framework for debt treatments beyond the DSSI. Furthermore, it actively participated in discussions about issues in the financial sector, such as enhancing cross-border payments, financial regulations and supervision, financial inclusion and stablecoins, principles to ensure quality infrastructure investment, international tax challenges caused by digitalization, and responses to climate change.

**Table II - 20. Main Themes of International Forums (2021)**

Forums	Main Themes
BIS Bimonthly meetings (January, March, May, June, September, November; video conferences)	Interaction between monetary and financial policies, monetary policy normalization, the involvement of Big Techs and Stablecoins in payment systems, supply chain bottlenecks, climate change, etc.
IMF and World Bank Group Meetings (April; video conferences, October; Washington, D.C.)	World economic outlook, global financial stability conditions, global policy challenges in responding to COVID-19, IMF's and WB's measures to support member countries, etc.
G20 Finance Ministers' and Central Bank Governors Meetings (February, April; video conferences, July; Venice, October; Washington D.C.)	Response to COVID-19 and global economic recovery, Debt Service Suspension Initiative (DSSI) and Common Framework for debt treatments beyond the DSSI, enhancing cross-border payments, financial regulations and supervision, financial inclusion, stablecoins, principles for quality infrastructure investment, international taxation, climate change, etc.

Source: Bank of Korea

### Strengthening Regional Financial Cooperation

The Bank of Korea actively participated in discussions of financial and economic issues at consultative bodies across the Asia-Pacific, including at the ASEAN+3, EMEAP and SEACEN meetings as well as various activities of their affiliated working groups, to strengthen financial cooperative relationships among regional member countries.

First of all, in collaboration with the government, the Bank served as a co-chair of financial cooperation meetings in 2021 to host a meeting of ASEAN+3 finance ministers and central bank governors (on one occasion),<sup>112)</sup> meetings of deputy finance ministers and central bank deputy governors (on two occasions), and working-level meetings (on five

112) The meeting was hosted via a video conference in 2021, following the 2020 meeting, due to the prolonged COVID-19 situation. The meeting is co-hosted each year by one country among the 10 ASEAN member countries and by one among Korea, China and Japan. Korea and Brunei were the co-chair countries of the meeting in 2021.

occasions). Through these meetings, the Bank contributed to the determination of the new reference rate for the Chiang Mai Initiative Multilateralization (CMIM) as a replacement for LIBOR and the revision of the operational guidelines for the formal establishment of funding support using local currencies, thereby enhancing the effectiveness of the regional financial safety net.

The Bank also participated in the EMEAP Governors' Meeting (on one occasion), and the Informal Meeting of EMEAP Governors and Heads of Supervisory Authorities (on one occasion), along with a meeting of SEACEN central bank governors (on one occasion), in order to discuss the latest financial and economic trends and to share the Bank's opinion on and experience with pending issues including climate change, supervision of financial risks, and the digitalization of financial systems. In addition, as a member institution of the Advisory Committee of the SEACEN Executive Committee,<sup>113)</sup> the Bank engaged in making decisions about major issues related to the operation of the SEACEN Center.

**Table II - 21. Main Themes of Asia-Pacific Regional Forums (2021)**

Forums	Main Themes
24th ASEAN+3 Finance Ministers' and Central Bank Governors' Meeting (May; video conferences)	Regional and global financial and economic trends and major risk factors, measures to enhance financial cooperation within the region, etc.
21st Trilateral Finance Ministers' and Central Bank Governors' Meeting (May; video conferences)	National and global financial and economic trends, financial cooperation within the region, etc.
26th EMEAP Governors' Meeting (August; video conferences)	Latest financial and economic trends, communication among central banks during the crisis and economic recovery period, etc.
10th Informal Meeting of EMEAP Governors and Heads of Supervisory Authorities (July; video conferences)	Credit supply in the banking sector, climate change and monitoring of financial risks, etc.
57th SEACEN Governors' Conference (December; video conferences)	Implications of financial system digitalization on central banks, etc.

Source: Bank of Korea

### Expanding the Sharing of Policy Experiences with Central Banks in Emerging Markets

The Bank of Korea passed on many of its policy experiences related to the responsibilities of a central bank, such as monetary policy, financial stability, and foreign exchange policy, in order to support financial development and to strengthen policy capabilities in emerging markets and developing economies.

First, despite constraints imposed on face-to-face exchanges owing to the COVID-19 crisis, the Bank's Knowledge Partnership Program (KPP)<sup>114)</sup> improved the effectiveness of advice and technical support through

113) With the aim to support the reform of the organization and the wage structure, and to deliberate on the recruitment of new personnel under the Executive Director of the SEACEN Centre, the committee is composed of the central banks from Korea, Indonesia, Malaysia, Papua New Guinea, the Philippines, Thailand, and Sri Lanka.

114) The BOK-KPP is a policy advisory and technical support program designed to share the Bank's business knowledge, policy implementation experiences, and Korea's experiences in developing its own financial system and infrastructure, with central banks from emerging markets and developing countries.

demand-tailored training, the activation of small-group video conferences, and policy dialogue with high-ranking officials from partner central banks. In addition, Eurasian countries such as Kazakhstan and Kyrgyzstan were added to the KPP to diversify the partner countries of the project, and the technical support was expanded to establish internal and external crisis response systems in developing countries.

**Table II- 22. BOK-Knowledge Partnership Program (KPP) (2021)**

Country	Main Topic
Vietnam	Strengthening the Capacity of Macroeconomic Analysis and Forecasting for Monetary Policy Implementation
Cambodia	Developing a Systemic Risk Monitoring Process
Mongolia	Prudential Corporate Governance
Nepal	Private Sector Credit Growth and its Impact upon Real Sector in the Nepalese Economy
Sri Lanka	FX Transaction Monitoring and Market Stabilization Measures
Uzbekistan	Financial stability in Uzbekistan
Kazakhstan	Improving the System of Analysis and Forecasting
Kyrgyzstan	Dynamic Stochastic General Equilibrium Model for Kyrgyz Republic

Source: Bank of Korea

Meanwhile, in order to discuss measures to enhance cooperation, the Bank hosted a conference for the central banks from five countries in the Eurasian region<sup>115)</sup> at the third International Forum for Northern Economic Cooperation in November 2021, which was organized by the Presidential Committee on Northern Economic Cooperation and discussed measures to enhance cooperation, thereby expanding channels for exchanges and cooperation with central banks in Eurasian countries.

In addition, the Central Banking Study Program (CBSP) was conducted in a non-face-to-face format in response to the COVID-19 situation. This program aims to share the Bank's experiences in four fields—foreign exchange reserves management, payments & settlements, internal audits & management, and, financial stability—with employees of central banks from developing countries. This year's attendees included 228 employees from 27 countries, signifying broader participation for the program.

**Table II- 23. Central Banking Study Program (CBSP) (2021)**

Issues and Dates	Numbers of Participants
1st CBSP (foreign exchange reserves management, March 22-23)	50 persons from 15 countries
2nd CBSP (payments and settlements, June 14-15)	51 persons from 13 countries
3rd CBSP (internal audits and management, Sept. 27-29)	66 persons from 13 countries
4th CBSP (financial stability, Oct. 18-20)	61 persons from 18 countries

Note: 1) Key issues and date in parentheses.

Source: Bank of Korea

### Expansion of Subscriptions to International Financial Institutions

During 2021, the Bank of Korea paid a total of 315.65 million dollars at the government's request for subscriptions to international financial institutions and consultative bodies in accordance with the Act on the Measures for the Admission to International Financial Institutions. Specifically, the reasons behind this increase in subscriptions in 2021 included a subscription to the 19th Replenishment of the International Development Association (IDA),

115) These include Mongolia, Uzbekistan, Kazakhstan, Kyrgyzstan, and Azerbaijan.

a subscription related to the new accession to the Central American Bank for Economic Integration (CABEI), and a subscription to the replenishment of the African Development Fund (AfDF). As a result, the Bank's subscriptions and contributions to international financial institutions totaled 17.5 billion dollars as of the end of 2021.

**Table II - 24. Subscriptions & Contributions to International Financial Institutions (as of year-end)**

	(million USD)		
	2020 (A)	2021 (B)	Change(B-A)
<b>Subscriptions</b>	<b>16,178</b>	<b>16,494</b>	<b>316</b>
IMF	11,861	11,861	0
IBRD	311	335	24
IDA	2,136	2,296	160
ADB	293	293	0
AfDB-AfDF	539	577	38
AIIB	748	748	0
CABEI	34	96	62
Other	256	288	32
<b>Contributions</b>	<b>1,005</b>	<b>1,005</b>	<b>0</b>
IMF	78	78	0
IBRD	34	34	0
ADB-ADF	671	671	0
IDB-MIF	161	161	0
IIC	40	40	0
Other	21	21	0
<b>Total</b>	<b>17,183</b>	<b>17,499</b>	<b>316</b>

Source: Bank of Korea

Meanwhile, as of year-end 2021, the Bank's total loans to the IMF amounted to 903.27 million SDRs. These loans included 78.65 million SDRs in lending through the New Arrangements to Borrow (NAB), and loans of 824.62 million SDRs through the borrow-

ing agreement of the Poverty Reduction and Growth Trust (PRGT).<sup>116)</sup> In 2021, the total amount of loans outstanding decreased by 66.71 million SDRs from the previous year, in line with the loan decrease of 64.71 million SDRs through the NAB and 2.00 million SDRs through the PRGT.

**Table II - 25. Loans to IMF (as of year-end)**

	(million SDR)				
	2020 (A)	In 2021		2021 (D=A+B-C)	Change (D-A)
		Loan (B)	Repayment (C)		
NAB	143	0	65	78	-65
PRGT	827	0	2	825	-2
<b>Total</b>	<b>970</b>	<b>0</b>	<b>67</b>	<b>903</b>	<b>-67</b>

Source: Bank of Korea

116) This is an agreement between the IMF and individual countries that is designed to arrange concessional financial support for Low Income Countries (LICs). Korea signed the agreement in 2011, and made its first loan to this fund in 2013.



## Box II-3.

### Bank of Korea's Online Review System for Foreign Exchange Transactions

As part of its digital innovation program, one of the goals set in the Bank of Korea's medium- and long-term development strategy, BOK 2030, is the Online Review System for Foreign Exchange Transactions, and it was introduced and implemented on Nov. 1, 2021.

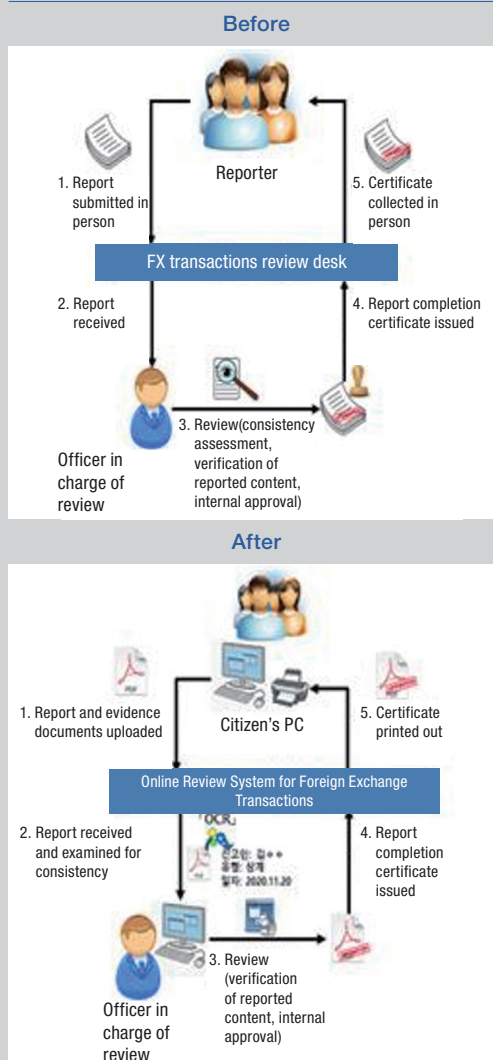
The Online Review System for Foreign Exchange Transactions refers to a system that allows the online processing of reporting procedures, from receiving a report and reviewing the report to issuing a certificate of completion for the report, when reporting foreign exchange transactions such as payments made through netting, third-party payments, and payments made in excess of a set period. It also allows the automation of certain tasks required in this process, such as consistency analysis between submitted reporting documents, provision of information on the progress of the review, and data input in the foreign exchange information system. With the introduction and operation of this system, the Bank of Korea is expected to greatly contribute to improving the quality of its public services and enhancing the efficiency of the foreign exchange transaction review process.

In order to use the Online Review System for Foreign Exchange Transactions, reporters have to receive an account ID, which requires them to visit the Bank in advance to submit the relevant application, a power of attorney, and a copy of a proof of identity. However, even after the introduction of this online system, it is still possible to visit the Bank's Head Office or regional branches in person as before to report foreign exchange transactions for payment or receipt

made through offsetting, third-party payments, and payment or receipt after the period set.

The Bank plans to continuously expand the types of foreign exchange transactions that can be reported on the online review system. In addition, it will further increase the efficiency of its foreign exchange transaction review service in the medium- to long-term by using AI technology based on the data accumulated through the system, thereby playing a leading role in digital innovation.

**Figure II - 21. Change in Foreign Exchange Transaction Review Following Introduction of Online System**



Source: Bank of Korea



## 7. Research and Statistics

### A. Research Activities

The Bank of Korea conducts extensive research to support the establishment and enforcement of effective monetary and credit policies. These efforts span across a wide range of topics covering all aspects of the domestic and international economy, including the global economic landscape, growth, inflation, and employment, while the findings of such research are published as various reports and papers.<sup>117)</sup>

#### (1) Head Office Research Activities

##### Analyzing Key Pending Issues in the Korean Economy

In 2021, the main focus of the Bank's research on economic issues was to analyze the impact of COVID-19 on the global economy and examine risk factors that may arise in the recovery process. First, the Bank analyzed the impact of the expansion of vaccine rollouts<sup>118)</sup> and the implementation of coexistence with COVID-19 policies<sup>119)</sup> on the global economy amid a persistent pandemic. In addition, the

Bank examined the background of the sharp rise in global commodity prices, assessed the possibility of prices entering an upward cycle, and estimated the subsequent potential impact on the Korean economy.<sup>120)</sup> It also examined the current status and impact of bottlenecks in global supply chains, focusing on three sectors with particularly noticeable supply disruptions: semiconductors, maritime logistics, and the labor market.<sup>121)</sup>

Furthermore, the Bank examined the impact of the COVID-19 pandemic on the Korean economy from multiple aspects. It analyzed the trade-offs between containment measures for COVID-19 and the economy arising in the process of responding to the pandemic, and suggested measures to minimize them.<sup>122)</sup> In addition, the Bank investigated the impact of the pandemic on consumption and the possibility of pent-up demand leading to a revival in consumption in the future.<sup>123)</sup> It also evaluated trends in export volumes and short-term conditions by examining changes in global demand and the status of the semiconductor industry after the outbreak of COVID-19.<sup>124)</sup>

The Bank intensively analyzed pending issues in the employment sector, given the significant impact of COVID-19 on employment. The Bank analyzed the impact of the worsening employment conditions driven by

117) Reports and papers in footnotes can be found in [Research Papers](#) on the Bank of Korea website.

118) Distribution of COVID-19 Vaccines and Direction of the Global Economic Recovery (Economic Outlook Report, February 2021).

119) Coexistence with COVID-19 Policies in Major Advanced Countries and Economic Impacts (International Economic Review, October 2021).

120) Examination of the Background of the Rise in Global Commodity Prices and the Impacts on the Korean Economy (BOK Issue Note, June 2021).

121) Current Status and Assessment of Global Supply Bottlenecks (Monetary Policy Report, September 2021).

122) Relationship Between Containment Measures for a Pandemic Crisis and Economic Costs (Monthly Statistical Bulletin, March 2021).

123) Examination of the Possibility of Future Pent-Up Demand (BOK Issue Note, April 2021).

124) Examination of the Trend of Export Volume by Item and Short-Term Conditions (Economic Outlook Report, November 2021).

the pandemic on young people who are newly entering the labor market.<sup>125)</sup> In addition, the Bank examined the employment status of the self-employed sector, which is one of the sectors most intensely impacted by the COVID-19 crisis, and assessed the possibility of continued sluggish employment in the sector.<sup>126)</sup>

Furthermore, the Bank reinforced its analysis of inflation, taking into account the fact that inflation fell after the outbreak of COVID-19 and rose sharply in 2021. The Bank examined inflationary pressure from the monetary perspective as well as the demand perspective, and expected inflation, in order to examine the background and cause of the sharp rise in the inflation rate.<sup>127)</sup> In addition, the Bank measured underlying inflation excluding the impacts of various confounding factors, such as the prices of agricultural, livestock, and petroleum products, and administered prices.<sup>128)</sup> It also analyzed the impact of supply bottlenecks arising in the recovery process from the pandemic on the nation's inflation.<sup>129)</sup>

Meanwhile, the Bank carried out an in-depth analysis of the impact of changes in the economic environment in the aftermath of the COVID-19 crisis. The Bank re-estimated the

potential growth rate of the Korean economy, reflecting changes in economic conditions driven by the COVID-19 shock, and suggested policy responses.<sup>130)</sup> It also investigated the impact of digital transformation on productivity and employment, in consideration of the rapid spread of the digital economy, including the increase in contact-free economic activities prompted by the pandemic.<sup>131)</sup> In addition, amid the acceleration of international discussions on climate change response due to the outbreak of the pandemic, the Bank analyzed the impact of climate change responses on the Korean economy<sup>132)</sup> as well as the impact of the introduction of carbon border taxes in major countries on the nation's exports.<sup>133)</sup>

Furthermore, the Bank investigated the impact of structural changes in Korea's economy that had been under way since before the outbreak of COVID-19. Amid rapid population ageing, the Bank assessed the impact of the nation's demographic changes on the unemployment rate and derived implications.<sup>134)</sup> In addition, after analyzing the structural factors of Korea's current account, which has maintained a surplus since 2000, the Bank forecast the nation's future current account trends from the medium- and long-term perspectives.<sup>135)</sup>

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125) Short- and Long-Term Impacts of Worsening Employment on New College Graduates (BOK Issue Note, March 2021).

126) Current Status and Assessment of Employment by Characteristics of Self-Employment in the Aftermath of the COVID-19 Crisis (BOK Issue Note, June 2021).

127) Examination of the Theoretical Background of the Recent Inflation Debate and the Possibility of Inflation in the Korean Economy (BOK Issue Note, July 2021).

128) Examination of Key Price Indicators (BOK Issue Note, August 2021).

129) The Impact of Supply Bottlenecks on Prices (BOK Issue Note, November 2021).

130) Re-Estimation of Korea's Potential Growth Rate in Consideration of COVID-19 (BOK Issue Note, September 2021).

131) The Impact of Digital Transformation on Productivity and Employment (International Economic Review, June 2021).

132) The Macroeconomic Impact of Climate Change Responses (BOK Issue Note, September 2021).

133) Effects of Major Countries' Climate Change Responses on Korea's Exports: Centering on Carbon Border Tax (Monthly Statistical Bulletin, July 2021).

134) Demographic Adjustment of Unemployment Rate (Monthly Statistical Bulletin, August 2021).

135) Analysis of Factors Behind Korea's Current Account Surplus (Monthly Statistical Bulletin, November 2021).

## Strengthening Research by the Economic Research Institute

The Economic Research Institute conducted in-depth research into pending economic issues at home and abroad, as well as medium- and long-term research and investigations.

The institution published the findings of its in-depth research into major economic issues, such as monetary policy<sup>136)</sup> and the labor market.<sup>137)</sup> It also provided policy references to improve the nation's economic structure in the medium- and long-term by actively conducting research into pending structural issues, including the productivity slowdown<sup>138)</sup> and changes in international trade conditions.<sup>139)</sup> In addition, the institution steadily published the results of its academic and theoretical research,<sup>140)</sup> while continuously carrying out research into North Korea's economy.<sup>141)</sup>

## Expanding the Global Research Network and Exchanges

The Bank of Korea devoted continuous efforts to strengthening its global research network using video conferencing amid the COVID-19 pandemic.

The Bank held the 2021 Annual Meeting of the CEBRA in July and the 2021 Annual International Journal of Central Banking Research Conference in August, and co-hosted the KAFA session at the 2021 FMA Annual Meeting with the Korea-America Finance Association in October. By hosting these meetings, the Bank provided opportunities for high-quality lectures and discussions about the latest economic theories, and strengthened its research and investigation capabilities through exchanges with research institutes at home and abroad. In December, the Bank hosted the BOK-BOJ Research Workshop,<sup>142)</sup> where presentations and discussions took place across a diverse range of topics, facilitating the sharing of research achievements and

136) The Effects of Monetary Policy on Consumption: Workers vs Retirees (BOK Working Paper, February 2021), A Parametric Estimation of the Policy Stance from the Central Bank Minutes (BOK Working Paper, October 2021), Monetary Non-Neutrality in a Multisector Economy: The Role of Risk-Sharing (BOK Working Paper, November 2021), International Transmission of Chinese Monetary Policy Shocks to Asian Countries (BOK Working Paper, November 2021).

137) The Effects of Job Training Programs on the Employment and Wages of Immigrants in Korea (Economic Analysis, June 2021), The Immigrant Wage Gap and Assimilation in Korea (BOK Working Paper, October 2021), The Long-Term Wage Effects of Graduating in a Recession (BOK Working Paper, December 2021), The Impact of Robots on Labor Demand: Evidence from Job Vacancy Data for South Korea (BOK Working Paper, December 2021).

138) Factors Behind the Productivity Slowdown in Korea and Ways for Improvement (BOK Issue Note, March 2021), Digital Innovation and Korea's Productivity Paradox (BOK Issue Note, August 2021).

139) The Causes of Decline in the Income Elasticity of Korea's Exports (BOK Working Paper, August 2021), Upstream Propagation of the U.S.-China Trade War (BOK Working Paper, December 2021).

140) Money Illusion: Evidence from Korea (BOK Working Paper, June 2021), Distribution-Dependent Value of Money: A Coalition-Proof Approach to Monetary Equilibrium (BOK Working Paper, September 2021).

141) Estimating Land Assets in North Korea: Framework Development & Exploratory Application (Economic Analysis, June 2021), A Study on North Korea's Economic System: Actual Conditions and Evaluation (BOK Working Paper, August 2021), Changes in North Korea's Financial System During the Kim Jong-un Era - Based on North Korean Literature (Economic Analysis, December 2021).

142) The Bank has held joint research workshops with the Institute for Monetary and Economic Studies at the Bank of Japan on an annual basis since 2017, alternating the role of host.

knowledge between the two central banks.

The Bank also actively conducted joint studies with renowned scholars at home and abroad on themes such as monetary policy, financial stability, and macro-prudence. Such joint research activities improved the Bank's research capacity to address domestic and international economic issues, and strengthened its global research network.

### **Boosting Internal Joint Research Activities**

In an attempt to adapt to the new financial economic environment, the Bank of Korea endeavored to improve its research and investigation performance system and efficiently conduct collaborative research involving outsourced research services and different departments within the organization. To this end, the Bank convened four Research Committee<sup>143)</sup> meetings during the year to coordinate its overall research activities, monitoring the progress of ongoing outsourced research activities, domestic and overseas joint research, and cross-departmental collaborative research, as well as actively exploring key research topics.

In particular, in order to effectively respond to the demand for research into urgent policy issues under the unfavorable policy conditions prompted by the COVID-19 pandemic, the Bank endeavored to establish organic links with its research capabilities. The Bank put forward policy measures to overcome the current crisis through cross-departmental cooperation, which facilitated the sharing of information about rapidly-changing economic conditions at home and abroad and in-depth

analysis of their impact on the domestic economy. In its continuous effort to elevate the quality of its research and investigation data, the Bank plans to further promote cross-departmental collaborative research within the organization.

### **(2) Research Activities by Regional Branches**

The functions of the Bank of Korea's regional branches include monitoring the condition of regional finance sectors and economies, compiling a diverse range of statistics, and analyzing key issues related to regional economies. In addition to helping regional economies achieve steady growth, all of these functions are required by the Head Office for the establishment of national monetary and credit policies, as well as the pursuit of financial stability. The regional branches also help their respective local communities to develop policy tasks and establish policy measures by co-hosting seminars and forums about current issues in the communities with relevant local organizations, universities, and local governments. In October 2021, a compilation of reports titled Regional Economies and COVID-19 was published, containing the findings of investigations and analyses conducted by the regional branches into the impact of COVID-19 on regional economies and their responses to the pandemic in terms of production, consumption, and employment.

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143) The Research Committee consists of the chairperson (the Deputy Governor of the BOK Economic Research Institute) and five committee members (Deputy Governors of the Bank of Korea and the Director General of the Economic Research Institute).

## Enhancing the Monitoring of Regional Economies

The Bank's regional branches conducted in-depth monitoring of regional economies through surveys of local businesses and relevant institutions, and contributed to publishing the quarterly Regional Economic Report that comprehensively analyzes the monitoring results, providing information necessary for the Head Office to identify regional economic trends and implement its monetary and credit policies. The branches also carried out regular or ad hoc monitoring of seven major manufacturing industries, consisting of semiconductors, automobiles, petrochemicals, steel, displays, ships, and smartphones, and reported the results to the relevant departments at the Head Office as a way to contribute to policy development. The analysis and monitoring results of other major issues related to regional economies were also included in the Issue Monitoring and Field Report sections of the Regional Economic Report and provided to local communities.

In addition, the branches regularly compiled and provided various statistics essential for identifying regional economic trends and developing local government policies, such as the Business Survey Index (BSI), the Consumer Survey Index (CSI), lending and deposit trends at financial institutions, and corporate financial statement analyses.

### Analyzing Major Issues in the Regional Economies

The Bank's regional branches faithfully per-

formed their duties as regional think tanks by analyzing the impact of changes in local economic conditions and suggesting policy measures for the sustainable and stable growth of the region through in-depth research into major issues within their region.

In 2021, each regional branch provided their respective local community with an analysis of the impact of the spread of COVID-19 on the regional economy, in addition to various in-depth analyses of new engines of economic growth in the regions, such as the bio industry, the auto parts industry, the rechargeable battery industry, and various knowledge industries.<sup>144)</sup>

In addition, in response to various local research demands, the regional branches produced various joint research reports with external experts<sup>145)</sup> and provided them as basic data for the development of related policies: An Analysis of the Value Chain Structure for Innovative and Balanced Growth in Seoul, Incheon, Gyeonggi, and Gangwon Regions; The Impact and Ripple Effects of an External Crisis on Tourism-Related Industries on Jeju-do; A Study of Growth Plans for Gangwon-do Through a Breakdown of Economic Growth Factors; A Study of the Development Strategy for Jeollabuk-do's Smart Logistics Industry; A Microstructural Analysis of Household Debt in Busan; and, Directions and Objectives for Eco-Friendly Economic Transition in Daegu and Gyeongbuk region.

### Strengthening Research Exchanges with Regional Communities

The Bank of Korea's regional branches

144) In 2021, the regional branches conducted 123 independent research projects, among which eight were joint research projects carried out through collaboration among different regional branches.

145) In 2021, the regional branches carried out 26 joint research projects with external experts.

actively participated in exchanges with pertinent institutions, universities, and local governments using various contact-free means of communication, despite constraints on face-to-face contact due to the prolonged COVID-19 pandemic.

With contact-free activities such as remote work and education becoming the norm due to the continued spread of COVID-19, the regional branches held seminars<sup>146)</sup> about various topics such as regional development plans for the post-COVID-19 era, measures to discover and nurture industries that would act as new engines of economic growth, and eco-friendly economic transformation, contributing to the development of strategies and policies for the sustainable growth of their respective regional economies. In addition, the branches hosted Regional Economy Forums<sup>147)</sup>, such as the impact of fintech on local finance, the current status of industries in the region and related development plans, and the impact of climate change on the local economy, to identify pressing regional economic issues and to revitalize the regional economy. These forums served as venues for sharing knowledge and information about pertinent topics and for improving communication with regional communities.

Moreover, the regional branches prepared policy reference materials about regional economic trends, which were provided for local government meetings in a timely manner, thereby contributing to the development of response measures.

Meanwhile, the regional branches operated a regional management system<sup>148)</sup> for areas with no regional branch or ones that face specific needs in terms of conducting research, monitoring, or exchanges and cooperation as an administrative or economic center, with the aim to develop policy measures tailored to such areas.

### **(3) Research Activities at Overseas Representative Offices**

The Bank of Korea's overseas representative offices conducted research and trend analyses<sup>149)</sup> on the economies of their respective jurisdictions, while endeavoring to promptly provide the Head Office with local information<sup>150)</sup> obtained through interviews with central banks and international organizations in their host countries as well as finance and economics experts.

In 2021, the overseas offices produced detailed analyses of the various policy responses from central banks and governments in their host countries regarding major global financial and economic issues, such as climate change and digital transformation, as well as the spread of COVID-19.

In addition, given the constraints on in-person communication, the offices maintained and expanded their local networks and collected information about major local issues by actively hosting and participating in webinars and video conferences.

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146) In 2021, the regional branches held 12 seminars on regional economies.

147) In 2021, the regional branches hosted 37 Regional Economy Forums.

148) As of the end of 2021, 12 regional branches were operating a regional management system for 15 areas.

149) In 2021, the overseas representative offices produced 100 research and trend analysis reports.

150) In 2021, the overseas representative offices produced 402 local information reports.

## B. Compilation of Statistics

As a key agency for the compilation of national statistics, the Bank of Korea generates 18 nationally-approved sets of statistics, including traditional monetary and financial statistics, such as currency, liquidity, interest rates on deposits and loans, and household credit. The approved statistics also include five main national accounts - Gross Domestic Product (GDP), Input-Output (I-O) Tables, National Balance Sheet (B/S), Flow of Funds, and Balance of Payments (BOP) – as well as other statistics, such as International Investment Position (IIP), Producer Price Index (PPI), Export and Import Price Indices (EPI and IPI), Financial Statement Analysis (FSA), Business Survey Index (BSI), and Consumer Survey Index (CSI).<sup>151)</sup>

In 2021, despite continued difficulties in the collection of base data and in the management of staff in charge of statistical compilation due to the spread of COVID-19, the Bank managed to publish official statistics on schedule and ensured their accuracy by smoothly responding to the pandemic. It also reinforced existing statistics while promoting the development of new statistics to fully reflect various social and economic phenomena in its statistics.

Despite various constraints imposed by the COVID-19 pandemic, the Bank actively pursued statistical cooperation with international organizations, academia, and the government, utilizing contact-free means of communication, while overhauling the Economic Statistics System (ECOS) in order to strengthen its statistical services for the public.

**Table II - 26. National Statistics Compiled by Bank of Korea**

Category	Description
National Accounts	Gross Domestic Product (GDP), Balance of Payments, Input-Output (I-O) Tables, Flow of Funds, National Balance Sheet (B/S) <sup>1)</sup> , International Investment Position (IIP), External Assets in Debt Instruments and Debt
Money and Finance	Monetary and Financial Statistics
Household and Micro Statistics	Survey of Household Finance and Living Conditions <sup>2)</sup>
Price index	Producer Price Index (PPI), Export and Import Price Indexes (EPI and IPI)
Corporation Statistics	Financial Statement Analysis
Economic Sentiment	Business Survey Index (BSI), Consumer Survey Index (CSI), Economic Sentiment Index (ESI)
Financial Stability	Loan Officer Survey on Financial Institution Lending
Payment and Settlement	Statistics on Payments and Settlements
Other	Survey of Financial Literacy Competencies <sup>3)</sup>

Notes: 1) Jointly with Statistics Korea.

2) Jointly with Statistics Korea and Financial Supervisory Service.

3) Jointly with Financial Supervisory Service.

Source: Bank of Korea

## Ensuring the Improvement and Expansion of Statistics

In order to ensure that its statistics fully reflect recent economic and social phenomena, such as changes in the industrial structure, advances in production technology, and the rapid expansion of the digital environment, the Bank of Korea developed short-term statistical indicators, expanded the scope of existing statistics, and carried out sample re-organization.

In response to the increasing demand for current statistics, the Bank released its weekly News Sentiment Index (NSI), real-time in-

151) Th Bank of Korea's Economic Statistics System (ECOS) (<https://ecos.bok.or.kr>)



tegrated economic indicators, and economic uncertainty index, and promoted the development of consumption and price indicators using credit card and POS scanner data. In particular, the NSI was verified through a trial release and eventually disclosed to the public as experimental statistics in February 2022.

The Bank responded to the demand for the development of policies for corporate loans and medium-sized enterprises by expanding the range of related indicators. It also reorganized the survey samples of the regional branches to better reflect actual conditions in the Business Survey Index (BSI). In addition, the Bank created a consolidated input-output table for 2015-2010 to enable time-series comparisons between base years. It is in the process of 2020 Benchmark Revision of the Korean National Accounts.

As part of the international efforts to expand economic statistics, the Bank worked on compiling quarterly production and income accounts for each institutional sector, Detailed Securities Statistics, Detailed Flow of Funds (From-Whom-to-Whom Tables), and Overseas Securities Investment Statistics (the Coordinated Portfolio Investment Survey) in order to reflect the recommendations of DGI-2 (Data Gaps Initiative-2),<sup>152)</sup> led by organizations such as the G20 and the IMF. The Bank plans to continue its cooperative efforts for the successful implementation of the newly-launched New DGI project.

## Strengthening of Domestic and International Statistical Cooperation

The Bank of Korea strengthened its statistical cooperation with academia and related institutions via virtual means of communication under circumstances where face-to-face interactions were restricted due to the continued spread of COVID-19.

In November, the Bank co-hosted the 2021 Korean Statistical Society-BOK Joint Forum as both an online and offline event in commemoration of the 50th anniversary of the Korean Statistical Society and the 71st anniversary of the Bank of Korea. The forum, held under the theme of “Speaking with Data: From the Past to the Future,” was attended by 130 statisticians from academia and related institutions. The participants examined changes in statistical analysis techniques along with the evolution of data, and discussed topics such as the development and objectives of economic statistics, in addition to efforts being made toward ensuring the diversity of data types and analysis.

In addition, the Bank continued to maintain its cooperative relationship with Statistics Korea by holding the Statistics Cooperation Meeting via virtual means, while participating in international meetings hosted by major international organizations, and discussing key issues related to the successful establishment and implementation of new international standards for statistics.

152) The Data Gaps Initiative, launched at the 2009 G20 summit in London, refers to an international statistics development and improvement project led by major international organizations, including the BIS and the ECB, as well as G20 members, under the leadership of the IMF and the FSB. The first phase of the Data Gap Initiative (DGI-1), concerning CDS, structuralization, and non-bank financial institutions' cross-border exposure, was carried out from 2010 to 2015. The second phase (DGI-2), covering derivative products, overseas direct investment, and the sharing of statistics, was conducted from 2016 to 2021.



## Improving Economic Statistics Services

Over the course of the year, the Bank of Korea provided a total of 75 “Lectures on Economic Statistics Indexes” at universities and public institutions in order to enhance public understanding of economic statistics. The lectures took place via various channels, including online lectures, in line with the phase-based guidelines for social distancing.

The Bank also enhanced user convenience by improving the e-mail inquiry function of the Economic Statistics System (ECOS). Meanwhile, in accordance with the progress being made on the Bank’s project to overhaul its Economic Statistics System, a newly revamped system came into operation first for the shared platform, which is the infrastructure for the compilation of statistics, and part of the Bank’s statistics operations. The

overhaul project, which includes the development of a statistics compilation system and an external user portal, is scheduled to be completed in the first half of 2022, with the aim of enhancing the productivity of statistics compilation and improving the quality of the statistical services provided to the public.

Figure II - 22. 2021 Joint Forum by the Korean Statistical Society and Bank of Korea (Nov. 4, 2021)



Source: Bank of Korea(<https://youtu.be/5K9SHdWWaDw>)

## QR BOX



### QR 1

Research Website



### QR 2

ECOS Website



### QR 3

Bank of Korea Statistics  
Forum

## 8. Treasury and Securities Business

### A. Treasury

The Bank of Korea, as the bank of the government, is tasked with the management of the receipt and disbursement of Treasury funds, and extends credit to the government. The Bank holds Treasury funds, such as national taxes, as Government Deposits, disburses funds from this account based on the government's needs, and provides temporary loans to the government when the government faces a fiscal shortage. In addition, these transactions are accounted in accordance with the government accounting system<sup>153)</sup> and verified against government data. In order to ensure the effective processing of Treasury funds, the Bank of Korea has also established and currently operates the Treasury Network.

#### Receipt and Disbursement of Treasury Funds

Receipts from taxes and other government revenues are processed by the Bank of Korea, treasury agencies, the Post Office, and other agencies<sup>154)</sup> designated for such purposes. Whereas treasury agencies deposit receipts from general taxpayers, the Bank deposits the government's idle funds operated by financial institutions and funds from the issuance of Treasury bonds. In 2021, national treasury receipts through all national treasury agencies

totaled 517 trillion won, while receipts directly deposited in the Bank amounted to 2,133 trillion won.

Most payments of Treasury funds are conducted via real-time electronic transfers. Upon receiving a request from a designated official to transfer Treasury funds, the Bank disburses them into the creditor's accounts through financial institutions on a real-time basis. The Bank also makes payments for the operation of idle funds and for the redemption of Treasury bonds from its current account. In 2021, the total disbursement of Treasury funds stood at 2,625 trillion won.

**Table II - 27. Receipts & Disbursements of Treasury Funds**

	(trillion won)			
	2019	2020(A)	2021(B)	Change(B-A)
Total Receipts	1,986	2,077	2,650	573
Receipts Through Treasury Agencies	444	448	517	69
Receipts Through Bank of Korea <sup>1)</sup>	1,542	1,629	2,133	504
Total Disbursement <sup>1)</sup>	1,981	2,071	2,625	554

Note: 1) Includes collection and operation of idle funds, issuance and redemption of Treasury bonds, and transfers between government accounts.

Source: Bank of Korea

#### Current Status of Treasury Agencies

To improve convenience for taxpayers, the Bank of Korea designates branches of financial institutions that meet certain requirements as treasury agencies to be entrusted with the business of receiving taxes and other government revenues. Depending on the type

153) In Korea, the government accounting system is divided into a cash basis, which records income and expenses according to cash flow under the National Finance Act, and an accrual accounting basis, which records transactions using double entry book-keeping as they occur under the National Accounting Act. The Bank of Korea handles cash basis accounting only.

154) Since 2008, the Korea Financial Telecommunications and Clearings Institute (KFTC) has been designated as an agency with the authority to receive Treasury funds through credit cards.

of contract, treasury agencies can be classified as Type A, which are designated directly by the Bank of Korea, and Type B, which are designated indirectly as agencies by their federations.<sup>155)</sup> As of the end of 2021, there were 16,832 treasury agencies, down by 166 from the previous year-end. National treasury receipts via treasury agencies totaled 492 trillion won, up by 64 trillion won.

**Table II- 28. Status of Treasury Agencies<sup>1)</sup> & Receipts Value**

		(number, trillion won)		
		2020(A)	2021(B)	Change(B-A)
Number	Treasury Agencies Type A	6,572(22)	6,292(22)	-280
	Treasury Agencies Type B	10,426( 6)	10,540( 7)	114
	Total	16,998(22)	16,832(23)	-166
Receipts Value	Treasury Agencies Type A	408	469	61
	Treasury Agencies Type B	19	23	4
	Total	427	492	64

Notes: 1) Figures in parentheses are numbers of institutions.

Source: Bank of Korea

### Operation of the Treasury Network

In order to carry out tasks related to Treasury funds, the Bank has established and operated the Treasury Network since 2003, which links the Bank of Korea's computer systems with the government's Digital Budget and Accounting System (dBrain), and the computer systems of financial institutions and the Korea Financial Telecommunications and Clearings Institute (KFTC). The Bank enhances the system's efficiency by making the majority of Treasury fund payments via real-time

electronic transfers through the Treasury Network, which facilitates the rapid operation of fiscal funds. This is further improved by handling a massive volume of data, for example, regarding the receipt of Treasury funds and national tax refunds, through a batch process at a fixed time once per day.

With the aim of heightening the stability of its treasury business operations managed through the Treasury Network, the Bank conducts annual simulation-based training programs. In particular, it examines whether organizations included in the Treasury Network are able to operate the treasury business through alternative means, such as via e-mail or the Disaster Recovery Center,<sup>156)</sup> in the event of a failure of their computer systems.

There were a total of 444,000 cases per day of receipts and disbursements of Treasury funds through the Treasury Network in 2021, amounting to a total of 21.8 trillion won in monetary value and increasing in the number of cases and value by 5.8 percent and 10.7 percent, respectively, over the previous year. This was primarily due to an increase in national tax revenues such as income tax and comprehensive real estate holding tax, as well as an expansion in fiscal expenditures such as support for small business owners amid the prolonged continuation of the COVID-19 pandemic.

155) Type A includes branches of banks while Type B applies to branches of mutual credits, credit unions, community credit cooperatives, mutual savings banks, and Kakao Bank.

156) This is a backup computer system to handle Treasury business operations in the event of emergencies that lead to failures in the main systems.

**Table II - 29. Treasury Network Transactions**  
(daily average)

		(thousand occurrences, trillion won, %)		
		2020	2021	Change (%)
Number	Real-time Electronic Transfers	49.6	48.2	-2.8
	File Transfers	369.7	395.3	6.9
	(Treasury Receipts)	312.9	327.2	4.6
	(National Tax refunds)	56.8	68.2	20.0
	Total	419.3	443.5	5.8
Value	Real-time Electronic Transfers	17.6	19.4	10.3
	File Transfers	2.1	2.4	13.6
	(Treasury Receipts)	1.8	2.1	14.9
	(National Tax Refunds)	0.3	0.3	6.5
	Total	19.7	21.8	10.7

Source: Bank of Korea

### Temporary Loans to the Government

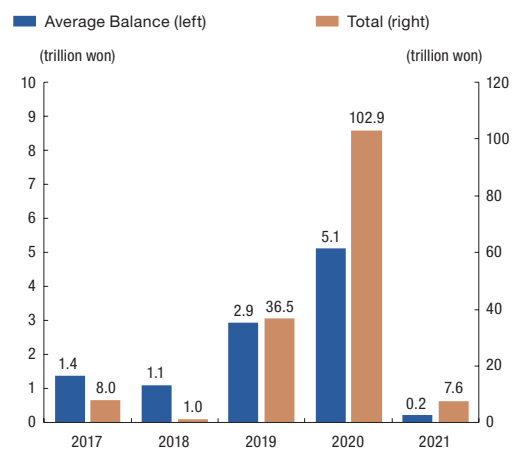
Based on resolutions of the Monetary Policy Board, the Bank of Korea sets and manages a ceiling on its credit extended to the government. The ceiling for 2021 was 50 trillion won, up 10 trillion won from the previous year.

**Table II - 30. Ceilings on Loans to Government**

		(billion won)	
		2020(A)	2021(B)
		Change (B-A)	
Treasury Single Account	30,000	40,000	10,000
Public Capital Management Fund	8,000	8,000	-
Special Account for Grain Management	2,000	2,000	-
Total	40,000	50,000	10,000

Source: Bank of Korea

In 2021, the Bank provided 0.2 trillion won in temporary loans to the government on an average balance basis, down 4.9 trillion won from 2020. On a cumulative basis, loans to the government decreased by 95.3 trillion won from 102.9 trillion won to 7.6 trillion won. This was attributable to a slowdown in the government's demand for temporary borrowings stemming from a rise in national tax revenues.

**Figure II - 23. Loans to Government**

Source: Bank of Korea

### B. Securities

To facilitate the effective operation of its monetary and credit policies, the Bank of Korea issues Monetary Stabilization Bonds and buys, sells, and lends government and public bonds. The Bank is also entrusted by the government with the authority to issue, redeem, and register Treasury bonds and bills.

In 2021, a total of 180.5 trillion won worth of Korea Treasury Bonds (KTBs)<sup>157)</sup> was issued through competitive auction, and 63.6 trillion won's worth was redeemed. As a result,

157) Korea Treasury Bonds (KTBs) are government bonds issued for the purpose of the receipt or disbursement of medium- and long-term government funds.

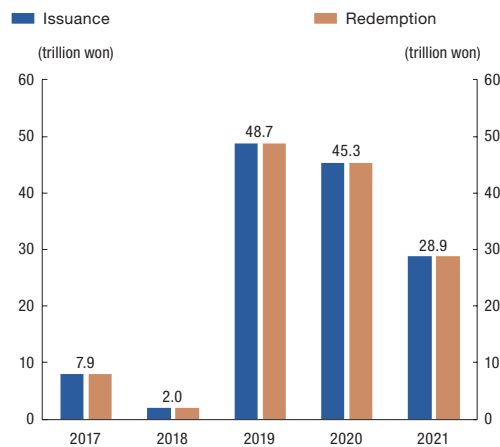
the value of KTBs in circulation totaled 843.7 trillion won as of year-end 2021. With regard to Korea Treasury Bills,<sup>158)</sup> a total value of 28.9 trillion won was issued through competitive bidding in 2021, the full amount of which was redeemed by the end of the year.

**Table II - 31. Issuance & Redemption of Korea Treasury Bonds**

	End of 2020 Outstanding	2021		End of 2021 Outstanding
		Issuance	Redemption	
Korea Treasury Bonds (KTBs)	726.8	180.5	63.6	843.7
2-year	-	12.5	-	12.5
3-year	62.7	36.1	16.5	82.3
5-year	109.1	31.8	23.2	117.7
10-year	249.4	37.8	22.6	264.6
20-year	136.7	9.8	1.2	145.3
30-year	158.1	47.8	0.1	205.9
50-year	10.8	4.6	-	15.4

Source: Bank of Korea

**Figure II - 24. Issuance & Redemption of Korea Treasury Bills**



Source: Bank of Korea

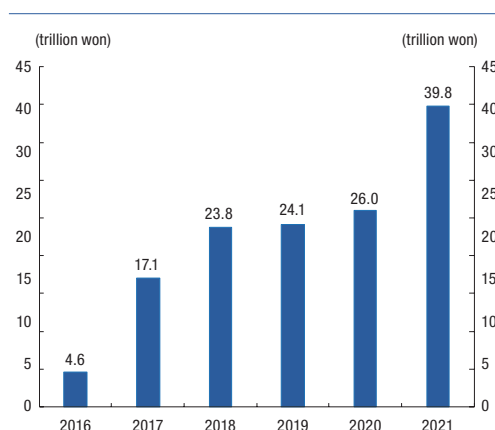
Meanwhile, like many central banks in major countries,<sup>159)</sup> the Bank of Korea provides securities custody services in order to support investment in Korean bonds by foreign central banks and international financial institutions. As of the end of 2021, the Bank had entered into securities custody agreements with six foreign central banks and one international financial institution for Treasury bonds and MSBs amounting to 39.8 trillion won. It provided services including the safekeeping and settlement of securities, receipt of principal and interest, and management of transactions.

In an effort to bolster international cooperation, it has also participated in international conferences<sup>160)</sup> for central banks that provide securities custody services.

158) Korea Treasury Bills are short-term bonds that the government issues to secure financing from the market and to compensate for temporary shortages caused by seasonal factors throughout the fiscal year.

159) Central banks that provide securities custody services for foreign central banks and international financial institutions include the U.S. Federal Reserve Bank of New York (FRB NY), the European Central Bank (ECB), the Bank of England (BOE), the Bank of Japan (BOJ), the People's Bank of China (PBOC), the Reserve Bank of Australia (RBA), the Banque de France (BDF), the Deutsche Bundesbank (DBB), the Bank of Canada (BOC), and De Nederlandsche Bank (DNB).

160) International forums for central banks in major countries that provide securities custody services and the Bank for International Settlement (BIS) have been held regularly every year since 2013.

**Figure II - 25. Investment Through BOK Securities Custody Services (end of year)**

Source: Bank of Korea

### C. Fund Management

Under the Bank of Korea Act and other related pieces of legislation, the Bank is entrusted by the government to operate and manage various funds, including the Public Capital Management Fund, the Fund for Repayment of Public Funds, and the Saving Bounty Fund for Lump-Sum Savings in Farming and Fishing Households.<sup>161)</sup>

The Omnibus Account of the Public Capital Management Fund raised 267.5 trillion won during 2021 through the issuance of Treasury bonds, receipts of principal and interest on deposits, which was paid out in redemptions of principal and interest on Treasury bonds and deposited into the General Account and the Foreign Exchange Stabilization Fund. The Treasury Loan Account raised 0.4 trillion won through the receipt of principal and interest on loans, which was used on loans for national projects and other purposes. The Loan Account redeemed all of its obligations on

foreign financing loans and provided services only for the collection of re-lending loans.

The Fund for Repayment of Public Funds raised 7.1 trillion won over the year, partly in transfers from Public Capital Management Fund deposits, and was used for the redemption of debts.

**Table II - 32. BOK's Government Fund Management Business**

Fund Name	Objective of Establishment and Major Features
Public Capital Management Fund	<p>Established in 1994 to integrate and manage surplus funds and to efficiently manage the issuance and redemption of Treasury Bonds. The Fund is comprised of the Omnibus Account, the Treasury Loan Account, and the Loan Account.</p> <ul style="list-style-type: none"> <li>• The Omnibus Account raises funds through the issuance of Treasury Bonds and utilizes them for the redemption of principal and interest on Treasury Bonds and for deposits in other accounts or funds, including the General Account.</li> <li>• The Treasury Loan Account manages the lending and collection of funds necessary for improving national welfare and supporting major industries.</li> <li>• The Loan Account manages the withdrawal and redemption of financing loans introduced under public agreements with international cooperation organizations, foreign governments, or foreign corporations.</li> </ul>
Fund for Repayment of Public Funds	<p>Founded in 2003 to facilitate the redemption of debts incurred during financial restructuring by the Korea Deposit Insurance Corporation and the Korea Asset Management Corporation.</p> <p>The fund contributed a total of 49 trillion won from 2003 to 2006, and, in this regard, it is scheduled to redeem all of its obligations by 2027 through funds transferred from the General Account and Net Budget surplus.</p>
Saving Bounty Fund for Lump-Sum Savings of Farming and Fishing Households	<p>Established in 1986 to provide a savings bounty to farm and fishery workers participating in the lump-sum savings program for farming and fishing households.</p> <p>The fund raises funds through annual contributions from the Bank of Korea and the government.</p>

Source: Bank of Korea

The Savings Bounty Fund for Lump-Sum Savings in Farming and Fishing Households raised a total of 68.2 billion won over the year, including 34.1 billion won from the govern-

161) Specifically, the Bank carries out the collection of revenues, payment of disbursements, and accounting related to these tasks.

ment and 34.1 billion won from the Bank. It was used to provide savings bounties to farmers and fishers officially registered as Lump-Sum Savings in Farming and Fishing Households.<sup>162)</sup> As of the end of 2021, the total number of subscribers was 254,000 households.

Meanwhile, in order to enhance returns of the three funds, the Bank invested temporary idle funds into short-term financial products, such as those in the Money Market Deposit Account (MMDA) and the RP.

**Table II- 33. Fund Management and Operation**

	(billion won)		
	2020(A)	2021(B)	Change (B-A)
Public Capital Management Fund			
Omnibus Account	268,085	267,466	-619
Treasury Loan Account	470	445	-25
Loan Account	219	344	125
Fund for Repayment of Public Funds	10,223	7,098	-3,125
Saving Bounty Fund for Lump-Sum Savings of Farming and Fishing Households	68	68	0

Source: Bank of Korea

162) The Savings Bounty Fund for Lump-Sum Savings in Farming and Fishing Households provides payments of additional interest at rates ranging from 0.9 to 1.5 percent per year (and 3.0 to 4.8 percent per year for low-income households) as a savings bounty to savers at maturity.



## 9. External Communications

The Bank of Korea has been strengthening its communications with the public by diversifying its communication channels so as to enhance public understanding of and trust for the Bank as the country's central bank. In 2021, the Bank endeavored to further expand opportunities to communicate with the public via virtual means of communication, such as social media and the online Money Museum, in consideration of the continued spread of COVID-19.

Furthermore, in order to fulfill its social responsibilities as the nation's central bank, the Bank of Korea actively participated in social contribution activities such as volunteer work, while operating various online and offline economic education programs to improve the financial literacy of the general public.

### A. Expansion of Public Communications

The Bank of Korea endeavored to actively communicate with the public by publishing and distributing research materials and by utilizing diverse communication channels, including various meetings and events, the Bank's official website and social media, and the Money Museum.

First, the Bank produced and distributed 450 periodicals and issued 346 press releases and other press reference materials, includ-

ing its Monthly Statistics Bulletins, BOK Working Papers, and Global Economy Focus reports. These publications covered the major responsibilities of the Bank of Korea, such as monetary policy and financial stability, and contained analysis and research findings on the latest issues, such as the economic impact of COVID-19 and inflation.

The Bank also worked steadily to solicit a wide range of opinions from the general public concerning its policies and operations. The Bank conducted its regular reputation survey<sup>163)</sup> among the general public and experts, and continued to collect opinions from external experts on its major reports, including the Annual Report and Monetary Policy Report, as well as its key policies, such as Base Rate adjustments, to reflect such opinions in developing policies and conducting operations.

In addition to these efforts, the Bank hosted various events as opportunities to communicate with the public. The Bank held the UCC Contest for Youth Economic Literacy to boost the interest and understanding of young people in the economy, utilizing it as an opportunity to communicate with the younger generation. A total of eight winners were selected out of 75 entries in the contest. It also held the Monetary Policy Challenge,<sup>164)</sup> where college students apply economic theories to analyzing economic scenarios and make a simulated decision as to the policy interest rate, in order to facilitate their understanding of monetary policy. Unlike past competitions, videos and real-time video conferencing were utilized

163) The survey is conducted annually by a polling organization, and the percentage of positive responses from the general public and experts as to the Bank's faithful performance of its role as a central bank in 2021 stood at 40.1 percent and 69.1 percent, respectively.

164) This competition has been held every year since 2003 in order to provide college students with a venue for experiencing a simulated monetary policy decision-making process, with the exception of 2020 to prevent the risk of spreading COVID-19. In 2021, a total of 264 college students on 66 teams from 37 universities nationwide participated in the competition.

for the judging process of this event so as to minimize the risk of COVID-19 infections. The Monetary Policy Workshop<sup>165)</sup> was held to examine the operating conditions of the Bank's monetary policy and to exchange opinions with academia about major financial and economic issues, such as challenges facing the Korean economy in the post-COVID-19 era, thereby enhancing public interest in and understanding of the Bank of Korea's policies and operations.

Meanwhile, the Bank of Korea dedicated its efforts to strengthening its communication with the public through its website and social media channels, in line with the increase in demand for contact-free communication driven by the COVID-19 pandemic. The Bank diversified the content on its integrated official website<sup>166)</sup> by launching the online Money

Museum and posting various self-produced social media content.

**Table II - 34. Visitors to BOK's Main Website**

	(thousand persons)			
	2018 <sup>1)</sup>	2019	2020	2021
Visitors	2,861	4,336	6,069	6,474

Note: 1) The integrated website launched on May 16, 2018.

Source: Bank of Korea

In addition to these efforts, the Bank strived to revitalize its social media presence in keeping with the changing media landscape. The Bank held various events, including "How to Identify Counterfeit Money and Prevent its Distribution" and "Commemoration of the 20th Anniversary of the Bank of Korea Money Museum" on its YouTube channel<sup>167)</sup> and oth-

**Figure II - 26. Monetary Policy Challenges (Aug. 13, 2021)**



Source: Bank of Korea

165) The workshop was held in the form of a hybrid meeting involving both in-person and virtual participants, which was attended by a total of 24 university professors (in-person 4; remotely 20).

166) <https://www.bok.or.kr/eng>

er social media platforms,<sup>168)</sup> to foster public interest in the work of the central bank. Also, in order to introduce its operations to the public in accessible formats, the Bank actively provided its major reports and press releases in videos, calligraphy pieces, infographics, and “card news”. In particular, to foster the general public's understanding of the Bank of Korea's operations and to enhance their financial literacy, the Bank provided various content via its social media, such as “BOK at N O’Clock,” “Term of the Day: Learn about the Economy,” and “BOKFLIX”, while developing and producing YouTube content, such as “Want to Learn More about the BOK?” based on public curiosity about the Bank of Korea and the metaverse-based “BOK Class”. As a result of the Bank's efforts to regularly upload viewer-friendly content tailored to the characteristics of each social media channel, the number of subscribers and followers on its social media significantly increased.

The Bank also endeavored to improve public access to information by providing YouTube livestreams of various press conferences, including the Governor's press conference on monetary policy directions.

**Table II - 35. Social Media Operated by BOK<sup>1)</sup>**

	YouTube	Facebook	Twitter	Kakao story	Instagram
Inception	Jul. 2013	Aug. 2014	Aug. 2014	Oct. 2014	Mar. 2021
Contents (number of posts)	1,061	2,141	1,840	1,674	121
Subscribers/Followers	41,517	29,960	2,623	10,715	5,506

Note: 1) As of year-end.

Source: Bank of Korea

In addition to its permanent exhibitions, the Bank's Money Museum held a retrospective titled “Special Exhibition for the 20th Anniversary of the Bank of Korea Money Museum” to look back on its history and to look ahead into its future as an institution that has served the public for 20 years since its opening in 2001. Also, the museum greatly improved the viewer experience with the reorganization of the Currency Gallery, its main exhibition hall. In order to compensate for the constraints on in-person services due to the prolonged COVID-19 pandemic, the museum expanded its contact-free services for the public. In particular, the museum provided a range of digital media experiences, including virtual reality (VR), an exhibition guide app, and various themed videos, in order to enhance public understanding of the Bank of Korea and currency, while conducting a total of 57 sessions of a remote education program for 2,029 students.

**Table II - 36. Visitors to BOK Money Museum<sup>1)</sup>**

	(thousand persons)		
	2019	2020	2021
Visitors	277	31	38

Note: 1) Includes currency exhibition rooms at regional branches.

Source: Bank of Korea

The Bank also dedicated its efforts to respond promptly and positively to inquiries and complaints from the public related to its operations, such as foreign exchange reviews, currency issuance, monetary policy, and economic statistics.

167) <https://www.youtube.com/theBankofKoreaKr>

168) Facebook (<https://www.facebook.com/bankofkoreahub>), Twitter ([https://twitter.com/bok\\_hub](https://twitter.com/bok_hub)), KakaoStory (<https://story.kakao.com/ch/bankofkorea>), Instagram (<https://www.instagram.com/thebankofkorea>).

Table II- 37. Number of Complaints Processed<sup>1)</sup>

	2019	2020	2021
Settlement	1,404	1,513	1,986

(occurrences)

Note: 1) Subject to change, due to ex-post registration of complaints on the complaint processing ledger.

Source: Bank of Korea

Furthermore, amid the increased difficulties faced by vulnerable groups due to the prolonged COVID-19 pandemic, the Bank of Korea committed itself to conducting social contribution activities to faithfully fulfill its social responsibilities as the nation's central bank. Given the constraints on in-person volunteer activities imposed by the current pandemic, the Bank expanded its fundraising efforts in support of children in separated families, seniors living alone, and social welfare organizations including facilities for the disabled, while engaging in various social contribution activities, such as donating rice and daily necessities, delivering monetary donations, and providing volunteer services to hunger relief organizations for the underprivileged as well as welfare centers for the elderly.

Figure II- 27. Bank of Korea's Social Contribution Activities



Source: Bank of Korea

## B. Strengthening Economic and Financial Education for the Public

In response to the changes in economic and financial conditions at home and abroad driven by the prolonged COVID-19 pandemic, the Bank of Korea provided economic education programs to foster rational decision-making capabilities among the public and to enhance public understanding of the Bank of Korea's major policies. In particular, in keeping with the trend of digital-based remote education, various efforts were made to promote education utilizing online media such as lecture videos and real-time online classes.

The Bank produced video clips titled “Bank of Korea Friday Lecture,” an advanced lecture series on economics for college students and the general public, and uploaded them to its website and YouTube channel. Meanwhile,

“Special Lectures on Management and Economics” and the “Economy of Technique Seminar” were established as regular courses during the academic year at Seoul National University of Science and Technology and conducted via video conferencing.

“Economic Lectures for Youth” were operated as live online classes with volunteers selected from the “Economics Education Volunteers Program”<sup>169)</sup> who taught lectures for teenagers. The Bank also provided real-time online classes as part of an indirect education program titled “Economy Training Courses for Teachers” for elementary, middle and high school teachers. These classes elicit positive responses from the participants for facilitating active communication between the lecturer and learners even in a contact-free context. Furthermore, in an effort to promote the financial inclusion<sup>170)</sup> of vulnerable social groups, the Bank participated in financial and economic education for multicultural families and economic education programs conducted by relevant institutions to support North Korean refugees in adapting to life in a market economy.

**Figure II-28. Winter Economy Training Course for Middle School Teachers via Video Conference**



Source: Bank of Korea

Despite the continued COVID-19 pandemic, the performance of the Bank's on-site economic education improved significantly in 2021 compared to the previous year, as it reinforced its contact-free education channels by actively utilizing real-time video lectures.

**Table II-38. On-site Economic Education Performance<sup>1)</sup>**

	(events, attendance)		
	2019	2020	2021 <sup>2)</sup>
Youths	773 (29,615)	45 (2,123)	197 (8,797)
General Public	710 (45,755)	139 (5,986)	233 (7,203)
Total	1,483 (75,370)	184 (8,109)	430 (16,000)

Notes: 1) Figures in parentheses are total number of people who have attended.

2) Including video lectures.

Source: Bank of Korea

169) The program has operated since its launch in April 2013 in response to the increasing social demand for economic education, with the aim of selecting qualified college students to serve as volunteer economic education instructors for elementary and middle school students.

170) This refers to all relevant activities aimed at improving financial literacy and access to financial services across all segments of society, including financially-underprivileged groups, such as multicultural families and North Korean refugees.



The Bank also produced high-quality online content and revised its economic education textbooks to promote economic education utilizing various media.

The Bank produced a video series titled "Unraveling the Economy", dealing with selected nine economic and financial topics which was able to foster learners' interest. In this series, two professors from the Office of Economic Education as panelists and a moderator covered various topics related to the Bank of Korea, including monetary policy, financial markets, financial statement analysis, balance of payments, exchange rates, and employment.

Figure II-29. "Unraveling the Economy," Ep. 1  
"What Is Monetary Policy?"



Source: Bank of Korea(<https://youtu.be/31TFuZ3P9SA>)

In order to support remote education at schools amid the prolonged COVID-19 pandemic, the Bank produced five video lectures titled "The Bank of Korea Economic Academy". Experts from various fields provided lectures on economic principles and phenomena, integrating such topics with other subjects including history and art to facilitate students' understanding. The lectures were provided

to teachers who participated in the Economy Training Courses for Teachers as reference material for school classes.

Figure II-30. Trailer for "Bank of Korea Economic Academy"



Source: Bank of Korea(<https://youtu.be/PAoHMoplmbI>)

Following the revision of its textbook for the general public titled "Bank of Korea's Basic Ideas of Economy" in 2020, the Bank also revised its "Bank of Korea's Basic Ideas of Economy for High School Students" in 2021. To ensure that the book is more accessible and enjoyable for high school students who are beginning to study economics, the revision of the book was carried out with an emphasis on explaining the concepts and principles that high school students need to know, such as inflation and interest rates. The book also contained articles and reading materials on timely topics for readers seeking in-depth knowledge of economics and finance.

Meanwhile, the Bank strengthened its external cooperation in order to carry out effective public economic education. The Bank participated in international discussions hosted by the OECD International Network on Financial Education (INFE),<sup>171)</sup> sharing the goals of economic education and directions of

171) Established in May 2008, the OECD International Network on Financial Education (INFE) is a specialized agency under the Organisation for Economic Co-operation and Development (OECD) for the purposes of exchanging information between countries and developing international standards and best practices related to financial and economic education.

the operation of educational programs with other participants. The Bank also took part in discussions on domestic economic education, and strengthened exchanges and cooperation with pertinent authorities such as the Ministry of Economy and Finance and the Financial Supervisory Service. This strengthening of cooperation with external institutions helped the Bank to identify trends in economic education at home and abroad and establish a direction for its economic education activities.

## Box II-4.

### Vitalization of Bank of Korea's Social Media Channels

In keeping with the changing media landscape and in response to the increased demand for contact-free communication prompted by the spread of COVID-19, the Bank of Korea devoted its efforts to strengthening its external communication by revitalizing its social media presence.

In 2021, the Bank began to produce various types of video and non-video content that introduced its operations and analyzed economic issues, providing such content on a regular basis via its YouTube channel and other social media platforms, such as Facebook, Twitter, and Instagram.

The Bank produced and provided its major reports and press releases in various forms of visualized content, including “card news”, infographics, and calligraphy pieces tailored to the characteristics of each social media channel. In addition, the Bank produced a variety of content to boost public familiarity with the central bank, including “BOK at N O’Clock”, which introduced the various departments of the Bank with snapshots of employees and their workplace environment, “BOKFLIX”, which provided economic knowledge through TV shows and movies, “Term of the Day: Learn About the Economy”, which provided a new economic term each day, and “Retro BOK” and “Virtual Travel Across Korea with BOK”.

Figure II-31. “BOK at N O’Clock” on Instagram



Source: Bank of Korea(<https://www.instagram.com/p/CMJJKkIEIzPU>)

Meanwhile, the Bank produced viewer-friendly videos to foster public understanding of its operations as well as financial and economic issues, and posted them on its YouTube channel on a regular basis. Specifically, the videos included “BOK Policy Briefing”, which introduced the major policies of the Bank of Korea, such as economic outlook and monetary and credit policies, “BOKonomy”, which provided in-depth analyses of current economic issues, and the metaverse-based “BOK Class”, which provided easy-to-understand explanations of currently relevant economic terms. In particular, viewers showed a favorable response to the “Want to Learn More About the Bank of Korea?” series, which was produced based on the public's questions about the operations and functions of the Bank of Korea and central banks that were collected through comments on the Bank's YouTube channel.



Figure II-32. "Want to Learn More about the BOK?" on YouTube



Source: Bank of Korea([https://youtu.be/A\\_sQqUBbkNM](https://youtu.be/A_sQqUBbkNM))

These efforts greatly increased the public's interest in the Bank of Korea's social media activities. The total number of subscribers to the Bank of Korea's YouTube channel and other social media surpassed 90,000 as of the end of 2021, a significant increase from 52,000 as of the end of 2020. The number of subscribers on the Bank's YouTube and Facebook accounts

grew rapidly from 25,000 to 42,000 and from 15,000 to 30,000, respectively, from the end of 2020 to the end of 2021, while the number of followers on the Bank's Instagram account, which was created in March 2021, reached 5,506 at the end of the year.

The Bank of Korea plans to continue providing various social media content in line with the needs of the public.

## QR BOX



### QR 1

BOK Website



### QR 2

BOK  
YouTube channel



### QR 3

BOK Facebook



### QR 4

BOK Twitter



### QR 5

BOK  
Kakaostory



### QR 6

BOK  
Instagram



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# III

## Management Status

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# Management Status in 2021

## Organizational Structure



Established an Organization for Research into Central Bank Digital Currencies  
Enhancement of research and analysis on digital currencies



Expanded the Organization for the Analysis of Internet-only Banks  
Enhancement of analysis for the management status of Internet-only banks



Established an Organization for the Management of IT Risks  
Establishment of an IT risk management organization

## Organization Management Methods



Improved Organization Culture and Innovated Management and Personnel  
Collection of employees' opinions through the Change Agent, consultation with external experts



Facilitated Digital Innovation  
Enactment of regulations on digital innovation, establishment of a data governance framework, improvement of the research platform, and development of a pilot system for AI-based economic forecasts



Improved and Expanded IT Systems  
Establishment of an information and digital strategic plan, promotion of a next-generation account and payment system, promotion of the digital workspace, expansion of the video conference system

## Financial Status



Assets



Net Income



Disposal of Net income

# 1. Organization Management

Throughout 2021, the Bank of Korea restructured its internal organizations to expand its analysis and research capability and to enhance its operational risk management in response to rapidly-changing internal and external environments. In addition, as the business scope of central banks continued to widen with the appearance of digital currencies and internet-only banks, the Bank tried to raise the effectiveness of its organizational management by reallocating its limited human resources as needed.

## A. Organizational Structure

### Strengthening of Research on Central Bank Digital Currencies (CBDC)

Recently, research and development into central bank digital currencies (CBDCs) has been actively conducted in major economies with the acceleration of related research and active discussions on regulations of crypto-assets. Since the volume of CBDC-related tasks has increased as a result, the Bank of Korea formed its Digital Currency Trends Analysis Section in the Payment & Settlement Systems Department. It is devoted to identifying domestic and international research trends at home and abroad, conducting research into changes in laws and institutions, and participating in medium- and long-term research projects. The Digital Currency Research Team, which was previously responsible for the above-mentioned tasks, now focuses on CBDC-related general affairs, policy tasks, internal and external cooperation and PR, and international cooperation, while the new-

ly-formed Digital Currency Trends Analysis Section will take charge of research into relevant trends to enhance the substantive quality of the Bank's CBDC-related research.

### Improvement of the Capacity for Analysis of Internet-only Banks

The Bank of Korea expanded and restructured its existing Internet Bank Section into the Internet Bank Team under the Office of Bank Examination to strengthen its capacity to analyze management conditions in the rapidly-growing field of internet-only banks. As it became possible to conduct joint examinations of internet-only banks with the Financial Supervisory Service starting in the second half of 2020, the Bank dedicated itself to tasks such as the examination of internet-only banks for sound business management and the analysis of effects on the rest of the banking industry, while also planning to strengthen examination activities into risks related to information and communication technology as domestic banks continue to adopt fintech.

### Reorganization to Enhance Operational Risk Management

The Bank of Korea expanded and enhanced relevant internal organizations to effectively control operational risks caused by changes in the IT work environment and the increasing complexity of trade instruments for foreign exchange reserves.

With the rapid changes in the IT work environment such as the spread of COVID-19 and the fully-fledged operation of the next-generation account and payment system (October 2020), the IT Risk Management Division was established as part of the Information Tech-

nology Department to systematically manage IT risks from a bank-wide perspective amid the rising outsourcing of IT infrastructure construction and systems operation. The IT Risk Management Division oversees the general management of computing incidents, natural disasters, and outsourcing-related risks that affect every team, with three teams operating under it: the IT Risk Management Team, the IT Security Team, and the IT Quality Management Team. Accordingly, the Smart Work Task Force was also set up to focus on creating a flexible and sustainable work environment in preparation for the long-term continuation of the pandemic.

Meanwhile, the Collateral Management Section was set up under the Reserve Management Group to handle collateral management affairs and mediate disputes in order to strengthen the management of risks with regard to trade counterparts for OTC derivatives that may arise in the overseas management of foreign exchange reserves.

## B. Organization Management Methods

### Improving Effectiveness of Organizational Management

The Bank of Korea abolished the Development Management Section and the ECOS Restructuring Section, whose original objectives were accomplished with the completion of the development project for the rational operation of the organization. Meanwhile, the management support organization was streamlined and simple tasks were either merged or abolished through the improvement of work

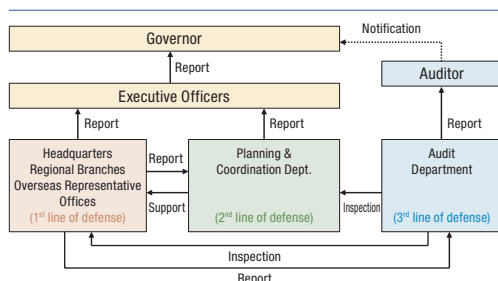
processes and the examination of human resource management methods. This allowed the Bank to operate effectively by reallocating its limited human resources into areas such as digital innovation and CBDCs that require new functions.

### Strengthening of Operational Risk Management

The Bank of Korea manages operational risks<sup>172)</sup> using the Three Lines of Defense (3LoD) model. Each department or branch, as the “first line of defense”, appoints as its operational risk manager a deputy director general under whose supervision risk management activities are carried out to identify and prevent potential risks in advance, and to ensure the capacity for a rapid response in case of an emergency. As the “second line of defense”, the centralized unit established in the Planning & Coordination Department handles bank-wide operational risk and business continuity management through monitoring, planning and coordinating all relevant operations. In addition, the Audit Department, as the “third line of defense”, performs the role of assuring the adequacy of risk management and internal controls at the levels of the first and second lines of defense through internal audits.

172) Operational risks are due to inadequate internal processes or systems, failures to properly manage employees, or external events that could hinder an organization's achievement of its goals, cause financial losses, or damage its reputation.

Figure III - 1. Operational Risk Management Structure of Bank of Korea



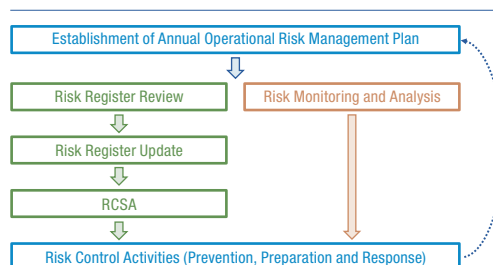
Source: Bank of Korea

Operational risk management is performed systematically based on the Risk Register.<sup>173)</sup> The Risk Register is a list that specifies control activities to preemptively identify and manage risks that could occur during the performance of operational tasks. It is updated annually to reflect changes in domestic and overseas working conditions and incidents within and outside of the Bank.

Every year, each department at the Bank of Korea implements a Risk and Control Self-Assessment (RCSA) based on the Risk Register, so as to identify and prevent various potential risks that could arise in their operational processes, while the Planning & Cooperation Department examines the relevant risks through the monitoring and analysis of incidents occurring within and outside the Bank.

The Bank also participated actively in the International Operational Risk Working Group (IORWG)<sup>174)</sup> to share experiences and best practices related to operational risks and business continuity management with central banks from various member countries.

Figure III - 2. Flow Chart of BOK's Operational Risk Management



Source: Bank of Korea

Meanwhile, the Bank of Korea established its Business Continuity Plans (BCP) to be able to effectively respond to various risk factors, such as cyberattacks, natural disasters, and the spread of infectious diseases, and frequently supplements the plans by, for example, conducting scenario-based simulation training.

Throughout 2021, the Bank of Korea frequently examined and supplemented its internal quarantine guidelines in response to the severity of the COVID-19 pandemic and changes in the government's quarantine measures. In addition, according to the business continuity plan against the COVID-19 pandemic, the Bank expanded the operation of a flexible working-hour system, such as working from home and distributed work, and actively utilized other contact-free operating methods such as video conferences.

173) Introduced in 2015 to systematically link the risk management and auditing tasks, the Risk Register specifies perceived risks with related departments, the anti-corruption index, evaluations of the likelihood and impact of risks, as well as other related control activities.

174) The IORWG has more than 100 member institutions, such as central banks, the BIS, and the IMF. The Bank of Korea joined the IORWG in December 2011.

### C. Improving Organizational Culture and Innovation of Management and Personnel

The Bank of Korea continued to improve its organizational culture as part of “Medium- and Long-Term Strategic Plan BOK 2030” and reform its management and personnel system in phases.

First, based on the outcomes of an assessment of its organizational culture, the Bank selected and conducted priority tasks among improvement projects such as improvement of joint research, work efficiency, and leadership capacity. The Bank established the Committee for Promoting Organizational Innovation to support the improvement process of the Bank’s organizational culture and help resolves major issues that have arisen over the course of that said process. The committee is comprised of management staff including the Senior Deputy Governor and Deputy Governors and the Change Agent<sup>175)</sup> as the representative of general employees. In particular, the Change Agent collected employees’ opinions on various issues and actively conveyed them to the committee, based on which the committee is striving to induce changes that are noticeable to employees.

In addition, the Bank of Korea undertook the reform of its management and personnel systems in the medium- and long-term to evolve into a dynamic organization with robust expertise. Based on recommendations by external experts, the Bank is currently preparing a management and personnel innovation plan. In particular, in the course of establishing the management and personnel

innovation plan, the Bank is striving to actively collect and reflect opinions from members of the organization by conducting interviews with management staff and employees, briefing sessions for employees, committee discussions, meetings of division directors, and employee surveys.

### D. Education and Training

#### Establishment of Training Programs for Better Organizational Culture and Digital Innovation

The Bank of Korea operated its education and training programs in 2021 with a focus on the preparation of training programs to enhance leadership capacity as an initiative for improving its organizational culture and support the active pursuit of digital innovation as one of the strategic objectives of BOK 2030 in response to changes in the training environment caused by the pandemic.

The Bank strove to devise a systematic course to enhance leadership capacity as one of its initiatives to improve its organizational culture in consideration of both common capabilities and position-specific core capabilities. To this end, the Bank opened and operated tailored and consumer-centered leadership programs such as emotional leadership and leadership for new team leaders as mandatory courses within its organizational development training program, while also establishing and operating a BOK communication course for all employees to improve their communication capacity at a time when smooth intergenerational communication and cooperation is

175) This position was created to form a consensus about organizational innovation and to induce employee participation. It mainly serves as a communication channel. The first Change Agent was composed of 22 members, weighted in consideration of job position.



becoming highlighted as more of Generation MZ are joining the organization.

In terms of capacity-building courses for each job position, lectures about management capacity and media relations were expanded in addition to programs on the themes of stress and health management, smooth intergenerational communication, and conflict management to nurture the capabilities required for each job position.

Courses related to data science including new digital technology and data analysis methods were strengthened to contribute to the active pursuit of digital innovation. To this end, the training demand for big data, block-chains, and artificial intelligence was identified specifically and the relevant programs were developed through cooperation with relevant departments. Statistics package courses for frequently-used software such as R and Python were reorganized to place a greater emphasis on big data analysis and utilization over skill learning.

### **Operation of Programs for Convergence Talent With the Capacity to Flexibly Respond to Changes**

The Bank of Korea developed and operated training programs to nurture convergence-type talented employees equipped with a capacity for creative and flexible thinking and insight who can devise effective responses to escalating uncertainties at home and abroad. Specifically, the Bank launched analysis courses for the asset market, an area of keen interest to the Bank's employees, and special lectures on current and future issues with significant implications for the nation's economy such as infectious diseases, climate and demographic changes, green industries,

and artificial intelligence. The Bank also continued its efforts to expand training programs for humanities and liberal art courses through external consignment.

The Bank adjusted some training programs to strengthen linkages between occupational training and work, as well as to satisfy the needs of training participants. In view of the opinions on and demand for the training courses, which were collected via a survey of all employees and "Curriculum Council," an internal advisory body composed of deputy directors general, case studies were included to the basic work-related tasks course for Grade 6 officials and administrative staff to ensure higher job relevance.

In addition, courses on leadership, insight cultivation, communication enhancement, coding and foreign languages using smart-phone apps were reorganized and added to external e-learning training programs, while training programs for retirement preparation were arranged to enhance employees' life planning and to strengthen social adaptability so that the program can provide practical help to prospective retirees after retirement.

### **Flexible Operation of Training Sessions in Response to the COVID-19 Pandemic**

Due to the difficulty of holding group training sessions as a conventional training method, the Bank of Korea increased the proportion of contact-free sessions in consideration of changes in employee demand for training methods. Programs with little need to be held in a group training format were operated online, while other programs that require the group training format were designed to be convertible into virtual programs if needed, so that the classes could take place flexibly either

online or in person.

As overseas travel became difficult due to heightened quarantine measures, the overseas training program was largely conducted online with a focus on highly job-relevant sessions. The Bank identified online programs related to the role of central banks as provided by the Bank of England and the Federal Reserve Bank of New York, and also provided its employees with timely information about various webinars hosted by other institutes including the IMF-Singapore Regional Training Institute (STI). Meanwhile, the Bank encouraged its employees to actively participate in the training sessions by establishing a participation standard for its online overseas training program to be undertaken by trainees at home and providing various incentives such as training credits and equipment rental services.

The Bank also established a facial recognition system for image tracking to ensure smooth communication among lecturers, trainees, and operators for online training and continued to improve the digital infrastructure related to employee training such as expanding online content in the Smart Learning System, an online education system for the Bank's employees.

## E. Human Resources Operation

The Bank of Korea continued its efforts to implement a fair recruitment process to secure outstanding talent with expertise and job competency, as well as basic capabilities, including a sense of duty as central bank employees and cohesion as members of an organization. It also strove to operate its human resources so as to respond to social expectations.

During 2021, the Bank of Korea recruited a total of 109 employees, including 50 new junior economists (G5), maintaining the number of new hires at more than 100 each year since 2016. This is mainly attributable to changes in medium- and long-term workforce supply and demand, such as the recent retirement of employees, while maintaining the fundamental structure of human resource operations.

**Table III - 1. Number of New Hires per Year<sup>1)</sup>**

	(persons, %)					
	2016	2017	2018	2019	2020	2021
Junior Economist	64	70	59	59	55	50
Assistant	30	30	19	17	20	32
Security	7	21	38	39	24	22
Others	3	8	13	11	11	5
Total	104	129	129	126	110	109
Male	50	69	95	53	53	53
Female	54	60	34	73	57	56
(%)	(51.9)	(46.5)	(26.4)	(57.9)	(51.8)	(51.4)

Note: 1) Based on recruitment year.

Source: Bank of Korea

The Bank also made continuous efforts to enhance fairness in its recruitment process. It continued to implement its blind hiring process, which removes information such as an applicant's sex, educational background, and alma mater from the application form, and expanded the participation of external committee members in the interview process.

The Bank devoted active efforts to increasing professionalism and openness in its human resources management. It also made efforts to recruit experienced experts by selecting 25 candidates with prior professional work experience when hiring administrative staff (C3). It hired a total of five external specialists, including Ph.D.-level researchers and specialists.

The Bank worked to recruit new employees with a focus on promoting social equity by hiring talented personnel from the provinces in accordance with its Provincial Talent Employment Quota, specialized vocational high school graduates through a separate screening process, and persons with disabilities through another separate screening process.

Meanwhile, the proportion of female managers at the Bank has continued to rise, and in particular the proportion of female managers above a G4 grade reached its highest-ever level, standing at 20.9 percent as of year-end 2021.

**Table III - 2. Number of Female Managers<sup>1)</sup> at Bank of Korea**

	(persons, %)					
	2000	2005	2010	2019	2020	2021
Female managers	35	76	90	230	251	270
Proportion <sup>2)</sup>	3.6	7.1	8.2	17.8	19.3	20.9

Notes: 1) Female staff of G4 grade or higher.

2) Proportion of female managers among total managers.

Source: Bank of Korea

## F. Expansion of Corruption Prevention and Culture of Integrity

To ensure a high level of integrity and credibility commensurate with the public's expectations, the Bank of Korea made stringent efforts to expand its organizational culture of integrity and anti-corruption by, for example, expanding the relevant infrastructure and strengthening the provision of education about integrity.

The Bank devised its medium- and long-term integrity policy system and initiatives<sup>176)</sup> to systematically implement internal measures for integrity and anti-corruption, starting with some actionable initiatives.

First, to raise awareness and accessibility with regard to the Improper Solicitation and Graft Act and the Employee Code of Conduct, the Bank expanded and reorganized its internal resources for solicitation and graft prevention. It also held an integrity pledge ceremony and Integrity Live Concerts to strengthen integrity-enhancing activities to induce participation and consensus. In addition, Integrity and Anti-Solicitation Day<sup>177)</sup> was improved with a focus on case studies intended to raise awareness of integrity. The Bank continued its efforts to spread the culture of integrity inside the organization in the midst of COVID-19, such as operating contact-free video learning courses on the Improper Solicitation and Graft Act.

As part of efforts to enhance the external transparency and credibility of its major projects, the Bank appointed three experienced independent, external specialists as Integrity Ombudspersons and actively reflected their advice and evaluations related to the "Bank of Korea Archive Project", etc.

Through these efforts, in the evaluation of the integrity of public institutions by the Anti-Corruption and Civil Rights Commission, the Bank was awarded a Grade 2 in the comprehensive integrity assessment, up from a Grade 3 last year, signifying that the Bank has maintained its status as one of the top public

176) The four key tasks consist of consolidating the foundation to facilitate the Bank's integrity policy, raising the effectiveness of anti-corruption efforts, promoting integrity-enhancing activities for greater participation and consensus, and expanding the practical impact of integrity culture.

177) The first business day every month has been designated as a day when integrity and anti-corruption materials are posted to the Bank's intranet or inside the elevators for guidance.

service organizations in terms of integrity.

The Bank of Korea will continue to make every effort to maintain its integrity as a central bank by satisfying the public's high expectations of integrity and credibility.

### G. Strengthening of Job Expertise and Effectiveness through Digital Innovation

Throughout 2021, the Bank of Korea enhanced its expertise and capacity in response to the transition to a digital economy, while pursuing digital innovation to raise its work efficiency by utilizing digital technologies. The Bank strove to lay the institutional and technological foundation to promptly implement digital innovation and advance the digital capacity under the leadership of the Office of Digital Innovation, which was created in the second half of 2020.

First, the Bank established a governance structure to promptly pursue digital innovation in response to rapidly-changing economic circumstances. The enactment of the Regulations on Digital Innovation led to an inter-department cooperation system under the leadership of the Chief Digital Strategy Officer (CDSO) to pursue both agile innovation and stable system operation simultaneously.

Second, the Bank of Korea established a data governance framework<sup>178)</sup> to facilitate more effective management and utilization of data as the core organizational asset in the era of digital economies, and pursued a project to advance its technological foundation to support it. As for the institutional aspects, data

management and utilization were elevated to a bank-wide strategy and a bank-wide data collaboration system was created through the enactment of the Regulation for Data Governance. As for the technological aspects, the Bank established a plan to construct an integrated data platform in phases to support effective data management and advanced analyses and to respond to the demand for new types of data such as big data and unstructured data.

Third, the Bank of Korea advanced its internal data analysis platform, BOK Research Innovation Technology (BReiT), to increase efficiency and productivity of data-related tasks, and continually expanded data stored in the platform in response to the increased data demand. In addition, a user-customized data analysis service, automated data-related tasks, and a visualized dashboard were developed to improve productivity and efficiency of data handling. The Bank continued its efforts to create an environment for advanced data analysis that enables high performance operations and to strengthen the staff's data literacy through training programs on big data and data analysis.

Fourth, the Bank dedicated efforts to enhance policy-making, research capabilities by utilizing new digital technologies and improve overall work efficiency. In this regard, a prototype system for quarterly GDP nowcasting using AI technology was developed. In addition, an STT (speech-to-text) system was developed to convert audio files from meetings into text files, which led to an increase in business productivity. The Online Review

178) This refers to an action and implementation system of planning, implementation, and examination by allocating personnel, processes, and technology so that the data can be properly collected, stored, processed, analyzed, and used as an asset for the organization to effectively perform its tasks.

System for Foreign Exchange Transactions,<sup>179)</sup> which customers use to process the reviews and reports of foreign exchange transactions online, was set up to improve convenience for customers and the efficiency of reviewing foreign exchange transactions.

## H. Improvement and Expansion of IT Systems

In 2021, the Bank of Korea expanded the scope of its IT systems to support effective contact-free work and established a long-term strategic plan for the IT and relevant departments in response to an era of digital transformation, while ensuring the stable operation of all IT systems.

First, the Bank built a digital collaboration platform referred to as DigiWorks (which stands for Digital Workspace) to systematically accumulate and promote the sharing of business information and to foster collaboration among employees, and conducted trial operations of the platform in eight departments, including the Communications and IT Departments. In addition, the Bank carried out projects including constructing the DigiWorks portal, creating websites for departments and expanding the related infrastructure to allow all departments to adopt the system.

Second, along with the continued need to support 'work-from-home' and contact-free meetings, the video conference server was replicated and the remote access system was enhanced to expand simultaneous access.

Third, the Bank adopted a cloud-based e-mail service not only to improve service quality, such as increased e-mail memory size

per person and mobility enhancing features, but also to incorporate "app functions" following recent trends in collaborative work which includes calendars, cloud storage, messenger, and video conference functions on a single platform.




Fourth, the Bank of Korea improved its IT infrastructure and strengthened its Cybersecurity System to ensure the stable operation of overall IT systems. Outdated servers and network devices were replaced with new ones, and security control was enhanced to effectively respond to cyber threats. In addition, the Bank examined the status of personal information management to prevent personal data leakage, and provided relevant education on an ongoing basis.

Finally, the Bank established the 10th Digitalization and Digital Strategic Plan, focusing on five objectives and 15 tasks to be systematically and effectively implemented in the IT and related departments over the next five years (2022-2026) in response to rapid changes in the digital climate.

179) For more information, please refer to Box II-3. Bank of Korea's Online Review System for Foreign Exchange Transactions.

**Table III-3. Objectives and Tasks of the 10th ISP  
(Information and Digital Strategic Plan)**

**BOK 2030 : Active Pursuit of Digital Innovation**

Objective	Tasks
 Digital Transformation	① Improving the Office Working Environment
	② Improving the Employee Self Service Portal(DigiWorks, BOIS)
	③ Renewing the Management Information System
	④ Innovating payment and settlement systems
	⑤ Upgrading the forex and bond market information systems
 Advancement of Data Analytics Foundation	⑥ Establishing a bank-wide data governance framework
	⑦ Building an integrated data platform
 Business Innovation with Novel Digital Technologies	⑧ Utilizing new technologies to improve work efficiency
	⑨ Enhancing the quality of research and analyses with novel digital technologies
	⑩ Expanding the use of cloud computing
 Enhancement of IT Infra Stability	⑪ Establishing a new IT Center
	⑫ Revamping the cybersecurity framework in response to new technologies
 Strengthening of Digital Capacity	⑬ Enhancing the expertise of IT personnel
	⑭ Consolidating IT outsourcing contracts
	⑮ Streamlining IT operations

Source: Bank of Korea

## I. Construction of an Integrated Annex

The Bank of Korea is currently proceeding with the construction of an integrated annex to reinforce the safety and security of its Head Office<sup>180)</sup> as an institution of national importance. The project commenced on Dec. 5, 2019, and includes the demolishment of the first annex, the construction of an integrated annex (16 aboveground levels, four underground levels), and the renovation of the main building and the second annex.

The framework of the aboveground construction took place in 2021. The core of the main building under renovation was relocated

from the center to the north of the building, and its framework was significantly reinforced. The integrated annex under construction to the west of the main building also began to take shape as its framework was constructed and curtain walls were installed. Construction has proceeded smoothly on the smart walkway that links the main building to the upper part of the integrated annex, and on the newly-built podium to expand its lower area.

The mock-up room was installed and operated on the sixth floor to outline the office space plan in preparation for the actual relocation into the space in the second half of the year and to improve the quality of construction. In the mock-up room, the office layout, lighting, and office automation rooms were recreated as they would be built in the actual completed layout, with new IT equipment and office furniture designed to improve work efficiency arranged accordingly. Administration teams from each department and the Change Agent were invited on a tour and improvements were gathered from their feedback to be reflected in the construction.

In 2022, the remaining construction on the framework will be completed, and, subsequently, external and internal finishing work will proceed as planned. The Bank of Korea will place safety above all else with regard to managing the construction process, while paying close attention to external and internal risks. The construction of the integrated annex will be completed in the second half of 2022.

180) The Bank of Korea Head Office consists of five buildings: the original building (completed in 1912), the main building (1987), the first annex (1964), the second annex (1932), and the Sogong Annex (1965).

Figure III-3. Aerial View of Bank of Korea's Integrated Annex



Source: Bank of Korea

Figure III-4. Construction Site of Bank of Korea's Integrated Annex (as of Dec. 2021)



Source: Bank of Korea



## 2. Financial Status

The Bank of Korea, in principle, issues banknotes and coins based on its currency-issuing authority, and manages the issued currency through loans to financial institutions and the government, as well as through purchases of government bonds. Given the significant increase in foreign currency inflows, the Bank absorbs liquidity by issuing Monetary Stabilization Bonds (MSBs) and holds foreign exchange reserves in order to maintain market liquidity at an appropriate level. Accordingly, the Bank's assets are largely made up of foreign currency securities and deposits from banks, while its liabilities are mainly composed of currency issued, MSBs issued, and deposits.

Consequently, the profits and losses of the Bank of Korea are significantly influenced by the difference between the coupon rate for MSBs and the rate of return on foreign assets, as well as by foreign exchange rates.

The Bank's capital consists of legal and voluntary reserves, as well as undivided earned surplus for term. Meanwhile, in accordance with Article 99 of the Bank of Korea Act, 30 percent of the net profits of the Bank are allocated to the legal reserve,<sup>181)</sup> and some of the residual net profits can be set aside for the voluntary reserve for specific purposes, with the approval of the government. After the allocation, the remaining net profits are paid to the General Revenue Account of the Government.

### Assets

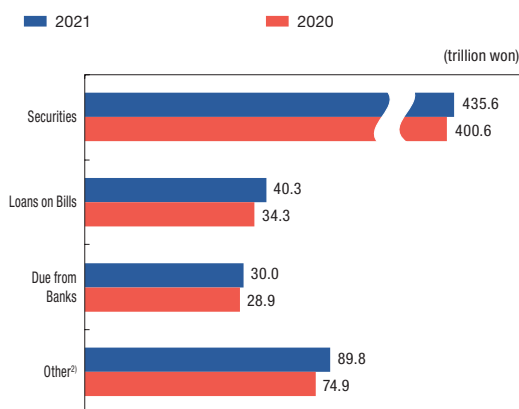
As of the end of 2021, the total assets of the Bank of Korea stood at 595,643.7 billion won, an increase of 56,913.3 billion won from the previous year-end level of 538,730.4 billion won. The growth in total assets is attributable to the rise in the won-dominated appraised value of a foreign asset due to increased USD/KRW exchange rate, along with an increase in securities and loans on bills following the rise in Treasury bond purchases and loans for the Bank Intermediated Lending Support Facility and a special purpose vehicle (SPV) for purchasing domestic corporate bonds and commercial paper due to the Bank of Korea's policy measures against the spread of COVID-19.

By type of asset, securities were worth 435,584.2 billion won, increasing by 34,936.2 billion won from the previous year-end, while loans on bills and due from banks were worth 40,279.8 billion won and 29,964.4 billion won, respectively, increasing by 6,007.5 billion won and 1,092.3 billion won from the previous year-end figures.

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181) With the revision of the Bank of Korea Act in 2011, the amount to be allocated to the legal reserve was adjusted from 10 percent to 30 percent of net profits.



Figure III-5. Assets<sup>1)</sup> (main item) (as of year-end)

Notes: 1) Total assets amounted to 596 trillion won, an increase of 57 trillion won from the previous year-end level of 539 trillion won.

2) Holdings of Special Drawing Rights and other current assets increased by 14.6 trillion won and 12.7 trillion won, respectively, while the exchange revaluation adjustment account decreased by 17.4 trillion won. Thus, total amount increased by 14.9 trillion won.

Source: Bank of Korea

### Liabilities and Capital

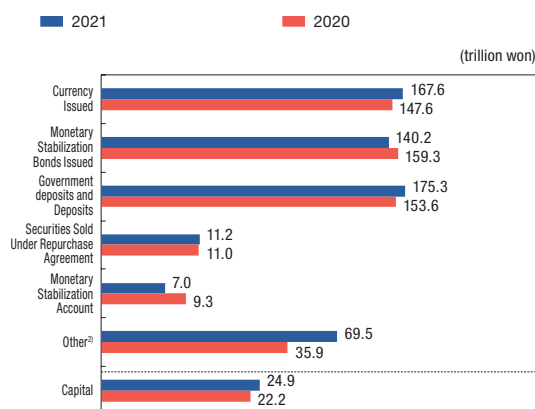
The total liabilities of the Bank of Korea at the end of 2021 amounted to 570,764.6 billion won, an increase of 54,205.5 billion won from the previous year-end level of 516,559.1 billion won. The increase in total liabilities is attributable to the rise in currency issued due to a decrease in the currency return rate influenced by the COVID-19 pandemic, along with an increase in government deposits and deposits of financial institutions.

By type of liability, currency issued, government deposits, and deposit balances of financial institutions stood at 167,571.9 billion won, 22,765.0 billion won, and 152,559.0 billion won, respectively, increasing by 20,015.0 billion won, 16,551.4 billion won, and 5,213.1 billion won from the previous year-end, while Money Stabilization Bond issuance stood at

140,218.5 billion won, down by 19,038.5 billion won from the end of 2020.

As of the end of 2021, the total capital of the Bank increased by 2,707.7 billion won from the previous year-end level of 22,171.3 billion won to 24,879.0 billion won.

By type of capital, the reserve increased by 2,209.8 billion won, and the undivided earned surplus (net income) increased by 498.0 billion won.

Figure III-6. Liabilities and Capital<sup>1)</sup> (main item) (as of year-end)

Notes: 1) Total liabilities amounted to 571 trillion won, an increase of 54 trillion won from the previous year-end level of 517 trillion won.

2) Exchange revaluation adjustment account, allocations of Special Drawing Rights and other current liabilities increased by 7.4 trillion won, 13.9 trillion won, 12.5 trillion won, respectively. Thus total amount increased by 33.6 trillion won.

Source: Bank of Korea

### Income and Expenses

In 2021, the Bank's net income increased by 498.0 billion won from the previous year-end level of 7,365.9 billion won, to 7,863.8 billion won. It was mainly because a decrease in total revenue caused by a decrease in the interest of foreign exchange reserves management was less than the decrease in total expenses due to

a dramatic decrease in losses on sales of securities and interest on MSBs.

Operating revenue decreased by 780.8 billion won from the previous year to 19,038.4 billion won as the interest on securities and the profit on sales of foreign currencies decreased by 496.3 billion won and by 328.1 billion won, respectively.

Operating expenses decreased by 1,379.1 billion won from the previous year to 8,272.9 billion won as the interest on MSBs and losses on sales of securities decreased by 781.6 billion won and 605.3 billion won, respectively.

ed to the legal reserve, 26.6 billion won was voluntarily reserved as a contribution to the Bounty Fund for Raising Lump-Sum Savings of Farming and Fishing Households, and the remaining 5,478.1 billion won was transferred to the General Revenue Account of the Government.

**Table III- 4. Income and Expenses**

(billion won)

Subject	2020 (A)	2021 (B)	Change (B-A)
Total revenue	19,865.4	19,083.2	-782.2
Operating revenue	19,819.2	19,038.4	-780.8
(Interest on Securities)	(7,174.9)	(6,678.7)	(-496.3)
(Profit on foreign exchange transaction)	(342.5)	(14.4)	(-328.1)
(Profit on Sales of Securities)	(9,897.8)	(10,256.7)	(358.9)
Non-Operating Income	46.1	44.8	-1.4
Total Expenses	9,676.4	8,341.8	-1,334.6
Operating Expenses	9,652.0	8,272.9	-1,379.1
(Interest on Monetary Stabilization Bonds)	(2,245.1)	(1,463.5)	(-781.6)
(Loss on Sales of Securities)	(3,372.8)	(2,767.4)	(-605.3)
Non-Operating Expenses	24.4	68.9	44.4
Income Before Income Taxes	10,189.0	10,741.4	552.5
Income Taxes(-)	2,823.1	2,877.6	54.5
Net Income	7,365.9	7,863.8	498.0

Source: Bank of Korea

## Disposal of Net Profits

Regarding the disposal of the net profits, which totaled 7,863.8 billion won in the 2021 fiscal year, 2,359.2 billion won was allocat-

# Financial Statements

Table III - 5. Balance Sheets (as of Dec. 31, 2021, and Dec. 31, 2020)

(million won)

	2021	2020
<b>Assets</b>		
I. Current assets	574,136,194	517,448,550
1. Cash	-	-
2. Gold and silver bullions	5,684,186	5,216,697
3. Holdings of special drawing rights	18,220,372	3,667,368
4. Securities(Note 2)	435,584,182	400,648,018
a. National bonds	28,959,293	25,939,881
b. Government guaranteed securities and other	-	-
c. Foreign securities	406,624,889	374,708,136
5. Due from banks(Note 3)	29,964,400	28,872,071
a. Due from banks current	23,983,588	22,145,299
b. Due from banks on time	5,980,812	6,726,772
6. Overdraft	-	-
7. Liquidity adjustment loans	-	-
8. Bills discounted	-	-
9. Loans on bills(Note 4)	40,279,849	34,272,315
10. Loans on securities(Note 4)	-	-
11. Securities bought under resale agreement(Note 5)	4,282,478	-
12. Loans on government(Note 4)	-	213,000
13. Loans on international financial organizations(Note 4)	1,498,708	1,519,959
14. Foreign exchange	65,099	65,309
15. Agencies	2,496,004	2,186,814
16. Inter-office account	-	-
17. Other assets	36,060,916	40,786,999
(Exchange revaluation adjustment account)	(-)	(17,379,820)
II. Non-current assets	21,507,459	21,281,839
1. Investment assets	20,848,794	20,676,073
a. Investments(Note 6)	13,068,652	12,938,554
b. Securities on investment	7,772,761	7,728,607
c. Telecommunication usage rights	19	48
d. Miscellaneous subscription rights	7,363	8,864
2. Tangible assets	597,907	530,585
3. Intangible assets	60,758	75,182
<b>Total assets</b>	<b>595,643,654</b>	<b>538,730,389</b>

	2021	2020
<b>Liabilities</b>		
I. Current liabilities	562,787,446	508,628,706
1. Currency issued	167,571,891	147,556,869
2. Monetary stabilization bonds issued(Note 7)	140,218,466	159,256,957
3. Monetary stabilization account	7,000,000	9,250,000
4. Government deposits	22,764,952	6,213,551
5. Deposits	152,559,014	147,345,917
a. Checking deposits	81,351,667	74,042,782
b. Liquidity adjustment deposits	22,000	60,000
c. Temporary deposits	2,760,650	3,696,211
d. Due to banks on demand	68,424,697	69,546,924
e. Other foreign deposits	-	-
6. Securities sold under repurchase agreement(Note 8)	11,153,400	11,000,000
7. Allocations of special drawing rights	17,638,360	3,767,790
8. Inter-office account	-	-
9. Other liabilities	43,881,363	24,237,622
(Exchange revaluation adjustment account)	(7,389,912)	(-)
II. Non-current liabilities	7,977,162	7,930,384
1. Borrowings	-	-
2. Reserves for retirement allowances	204,401	201,778
3. Liabilities to international monetary institute	7,772,761	7,728,607
<b>Total liabilities</b>	<b>570,764,608</b>	<b>516,559,090</b>
<b>Capital</b>		
I. Surplus	24,879,046	22,171,299
1. Earned surplus	24,879,046	22,171,299
a. Legal reserves	13,577,432	11,367,675
b. Voluntary reserves	3,437,768	3,437,768
c. Undivided earned surplus for term	7,863,846	7,365,855
<b>Total capital</b>	<b>24,879,046</b>	<b>22,171,299</b>
<b>Total liabilities and capital</b>	<b>595,643,654</b>	<b>538,730,389</b>

Table III - 6. Statements of Income (for the years ended Dec. 31, 2021, and Dec. 31, 2020)

(million won)

	2021	2020
I. Operating Revenue	19,038,390	19,819,233
1. Interest Received and Discount Fees	8,621,125	9,438,237
(1) Interest on Securities(Note 9)	6,678,666	7,174,936
(2) Interest on deposits	27,412	94,424
(3) Interest on overdraft	435	107
(4) Discount fees on domestic bills	-	-
(5) Interest on loans on bills	109,273	77,760
(6) Interest on loans on securities	-	32,770
(7) Interest on liquidity adjustment loans	16	17
(8) Interest on securities bought under resale agreement	1,612	45,927
(9) Interest on loans on government	884	47,177
(10) Interest on loans on international finance organization	830	1,928
(11) Miscellaneous interest received	1,801,997	1,963,191
2. Commissions received	137,804	140,686
3. Profit on sales of securities	10,256,699	9,897,804
4. Gain on redemption of monetary stabilization bonds	8,348	-
5. Profit on foreign exchange transaction	14,414	342,506
6. Profit on gold and silver bullions	-	-
II. Operating expenses	8,272,908	9,651,962
1. Interest expense and discount fees	4,629,718	5,345,908
(1) Interest on deposits	1,504,219	1,177,922
(2) Interest on monetary stabilization account	54,624	65,247
(3) Interest on monetary stabilization bonds issued	1,463,502	2,245,058
(4) Interest on securities sold under repurchase agreement (Note 10)	108,496	98,083
(5) Interest on borrowings	-	-
(6) Miscellaneous interest paid	1,498,877	1,759,598
2. Commissions paid	173,837	165,341
3. Loss on sales of securities	2,767,437	3,372,767
4. Loss on redemption of monetary stabilization bonds	54,457	114,691

	2021	2020
5. Loss on foreign exchange transaction	2,000	11,519
6. Loss on gold and silver bullions	-	-
7. International financial institutions contribution	-	31,704
8. Bank-note and coin manufacturing expenses	128,388	111,446
9. Provision for severance pay	30,940	35,326
10. Depreciation expense	28,665	26,549
11. Amortization of intangible assets	19,752	4,842
12. General and administrative expenses	437,714	431,869
III. Operating income	10,765,483	10,167,271
IV. Non-operating income	44,787	46,139
1. Income from disposal of assets	4,541	10,401
2. Miscellaneous profits	40,246	35,738
V. Non-operating expense	68,854	24,447
1. Donation	65,000	10,000
2. Loss from disposal of assets	3,005	13,390
3. Miscellaneous loss	849	1,057
VI. Income before income taxes	10,741,415	10,188,964
VII. Income taxes	2,877,570	2,823,108
VIII. Net income	7,863,846	7,365,855

Table III- 7. Statements of Changes in Equity (For the years ended Dec. 31, 2021, and Dec. 31, 2020)

(million won)

	Capital	Earned Surplus	Total
I. Balance as at Jan. 1, 2020	-	18,524,609	18,524,609
II. Payments to general revenue account of the government		-3,685,294	-3,685,294
III. Contributions to fund for farming and fishing households		-33,872	-33,872
IV. Net income		7,365,855	7,365,855
V. Balance as at Dec. 31, 2020	-	22,171,299	22,171,299
VI. Balance as at Jan. 1, 2021	-	22,171,299	22,171,299
VII. Payments to general revenue account of the government		-5,121,987	-5,121,987
VIII. Contributions to fund for farming and fishing households		-34,112	-34,112
IX. Net income		7,863,846	7,863,846
X. Balance as at Dec. 31, 2021	-	24,879,046	24,879,046

Table III- 8. Statements of Appropriation of Earned Surplus (for the years ended Dec. 31, 2021, and Dec. 31, 2020)

(million won)

	2021	2020
I. Undivided Earned Surplus	7,863,846	7,365,855
1. Balance at beginning of year	-	-
2. Net income	7,863,846	7,365,855
II. Appropriation of earned surplus	7,863,846	7,365,855
1. Legal reserve	2,359,154	2,209,757
2. Voluntary reserve	26,615	34,112
a. Contribution to fund for farming and fishing households	(26,615)	(34,112)
b. Reserve for specific purposes	(-)	(-)
3. Payment to general revenue account of the government	5,478,077	5,121,987
III. Undivided earned surplus to be carried over to subsequent year	-	-

# Notes to the Financial Statements

## 1. Significant accounting policies

### A. Basis of preparation

Except in the case specifically articulated by related laws and regulations, the presented financial statements have been prepared in accordance with the Accounting Regulations enacted under Article 8 of Bank of Korea Act and Article 33 of the Bank's Articles of Incorporation. The generally accepted accounting principles shall apply upon matters not determined by the Accounting Regulations of the Bank. Meanwhile, considering the insignificance of cash flow information to the functions of the Bank as a central bank, statements of cash flow have not been prepared. In addition, the statements of appropriation of earned surplus have been separated from the notes and reported as separate financial statements in consideration of their significance.

### B. Recognition and measurement of assets and liabilities

Assets are recognized at the date of acquisitions and liabilities are recognized when obligated. Assets are not assessed at the fair values but recorded at the acquisition cost or the amortized cost in the balance sheet.

#### (1) Securities

Debt securities are measured at the amortized cost while equity securities are measured at the acquisition cost. The Bank applies the specific identification method to debt securities and the moving average method to equity securities when calculating the acquisition cost to recognize the realized gains or losses on sales of the securities.

#### (2) Investment assets

Investment assets are measured at the acquisition cost.

### C. Recognition of revenues and expenses

Revenues and expenses are recognized on the accrual basis.

### D. Foreign exchange translation and recognition of profits and losses on foreign exchange transactions



### **(1) Foreign exchange translation**

Assets and liabilities denominated in foreign currencies are translated into Korean won applying the exchange rate or the arbitrage rate at the end of the reporting period. The gains and losses on the translation are not recognized in profit or loss but as a foreign exchange revaluation adjustment account which is a deferred account. Revenues and expenses denominated in foreign currencies are translated into Korean won applying the exchange rate at the date of the transaction.

### **(2) Recognition of profits and losses on foreign exchange transactions**

Profits and losses on foreign exchange transactions are determined by the difference between the Korean won equivalent received from the sales of foreign currency and the equivalent value of purchase cost of the foreign currency.

## **E. Transactions under resale and repurchase agreement**

Transactions under resale and repurchase agreement are loan and borrowing transactions secured by securities. Purchasing securities under resale agreement is accounted for as securities bought under resale agreement and selling securities under repurchase agreement is accounted for as securities sold under repurchase agreement on the Balance Sheet.

## **F. Depreciation of tangible assets and amortization of intangible assets**

### **(1) Tangible assets**

Buildings are depreciated using the straight-line method, while other tangible assets are depreciated on the declining balance method. Tangible assets are presented on the Balance Sheet at the acquisition cost less accumulated depreciation.

### **(2) Intangible assets**

Development costs are amortized based on straight-line method whereas software is amortized using declining balance method and presented on the Balance Sheet at the acquisition cost less accumulated amortization.

## **G. Reserve for retirement allowances**

Reserve for retirement allowances of the Bank under the retirement policy shows an accrued estimation for retirement at the end of the reporting period. Under the National Pension Act, the

Bank transferred a certain portion of retirement allowances for employees to the national pension fund. The amount transferred to the national pension fund and the plan assets for the retirement pension which is under the Act on the Guarantee of Employees' Retirement Benefits is reflected in the financial statements as a reduction of the reserve for retirement allowances.

## H. Income taxes

Income taxes comprise the current tax expense calculated for the periods in accordance with statutory corporate tax regulations, taxes added to the corporate income tax and the local income tax.

## 2. Securities

Details of securities as of December 31, 2021 and 2020 are as follows

(won)

Description		2021	2020
Subject	Type		
National bonds	Korean Treasury Bonds	28,959,292,668,944	25,939,881,384,189
Government guaranteed securities and others	-	-	-
Foreign securities	Foreign government bonds and others	406,624,889,085,299	374,708,136,406,076
Total		435,584,181,754,243	400,648,017,790,265

## 3. Due from Banks

Details of due from banks as of December 31, 2021 and 2020 are as follows

(won)

Description		2021	2020
Subject	Institutions		
Due from banks current	Foreign financial institutions	23,983,588,411,678	22,145,298,688,106
Due from banks on time	Foreign financial institutions	5,980,811,783,193	6,726,772,026,721
Total		29,964,400,194,871	28,872,070,714,827

## 4. Loans

Details of loans as of December 31, 2021 and 2020 are as follows

(won)

Description		2021	2020
Subject	Debtors		
Loans on bills	Local financial institutions and others	40,279,849,000,000	34,272,315,000,000
Loans on government	Ministry of Economy and Finance	-	213,000,000,000
Loans on international finance organization	IMF	1,498,707,598,241	1,519,959,119,142
Loans on securities	Local financial institutions	-	-
Total		41,778,556,598,241	36,005,274,119,142

## 5. Securities Bought Under Resale Agreement

Details of securities bought under resale agreement as of December 31, 2021 and 2020 are as follows

(won)

Description		2021	2020
Subject	Counterparty		
Securities bought under resale agreement (in won)	Local financial institutions	4,000,000,000,000	-
Securities bought under resale agreement (in foreign currency)	Foreign financial institutions	282,477,773,377	-
Total		4,282,477,773,377	-

## 6. Investments

Details of investments as of December 31, 2021 and 2020 are as follows

(won)

Description		2021	2020
Subject	Investee		
Local investment	The Export-Import Bank of Korea	1,165,000,000,000	1,165,000,000,000
	Korea Housing Finance Corporation	645,000,000,000	645,000,000,000
	Subtotal	1,810,000,000,000	1,810,000,000,000
Off-Shore investment	International financial organizations	11,258,651,742,502	11,128,553,904,998
Total		13,068,651,742,502	12,938,553,904,998

## 7. Monetary Stabilization Bonds Issued

Details of monetary stabilization bonds issued as of December 31, 2021 and 2020 are as follows

(won)

Description	2021	2020
Coupon Bonds	130,128,466,439,291	146,786,957,302,301
Discount Bonds	10,090,000,000,000	12,470,000,000,000
Total	140,218,466,439,291	159,256,957,302,301

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## 8. Securities Sold Under Repurchase Agreement

Details of securities sold under repurchase agreement as of December 31, 2021 and 2020 are as follows

(won)

Description		2021	2020
Subject	Counterparty		
Securities sold under repurchase agreement (in won)	Local financial institutions	11,000,000,000,000	11,000,000,000,000
Securities sold under repurchase agreement (in foreign currency)	Foreign financial institutions	153,399,662,052	-
Total		11,153,399,662,052	11,000,000,000,000

## 9. Interest on Securities

Details of interest on securities for the years ended December 31, 2021 and 2020 are as follows

(won)

Description	2021	2020
Interest on securities (in won)	550,386,532,126	455,327,562,843
Interest on foreign securities	6,128,279,624,783	6,719,608,758,641
Total	6,678,666,156,909	7,174,936,321,484

## 10. Interest Expenses on Securities Sold Under Repurchase Agreement

Details of interest expenses on securities sold under repurchase agreement for the years ended December 31, 2021 and 2020 are as follows

(won)

Description	2021	2020
Interest expenses on securities sold under repurchase agreement (in won)	108,496,217,256	90,533,166,001
Interest expenses on securities sold under repurchase agreement (in foreign currency)	-	7,549,736,031
Total	108,496,217,256	98,082,902,032

## Independent Auditor's Report

The Governor,  
Bank of Korea

### Opinion

We have audited the financial statements of Bank of Korea (the Bank), which comprise the balance sheets as of December 31, 2021 and 2020, and the statements of income, statements of changes in equity and statements of appropriation of earned surplus for the years then ended, and notes to the financial statements, including a summary of significant accounting policies and other explanatory information.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Bank as of December 31, 2021 and 2020, and its financial performance and its changes in equity and earned surplus for the years then ended in accordance with the Accounting Regulations enacted under Article 8 of Bank of Korea Act and Article 33 of the Bank's Articles of Incorporation (the Accounting Regulations of the Bank).

### Basis for opinion

We conducted our audit in accordance with Korean Standards on Auditing. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial statements* section of our report. We are independent of the Bank in accordance with the ethical requirements that are relevant to our audit of the financial statements in the Republic of Korea and have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Emphasis of matter

Without qualifying our opinion, we draw attention to Note 1 to the financial statements, which states that the financial statements of the Bank have been prepared in accordance with the Accounting Regulations of the Bank and generally accepted accounting principles and practices that apply to matters not specified in the Accounting Regulations of the Bank.

### Responsibilities of management and those charged with governance for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with the Accounting Regulations of the Bank, and for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Bank's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Bank or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Bank's financial reporting process.

### Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Korean Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Korean Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Bank's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Bank's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Bank to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

*Nekia Samduk*

February 21, 2022

This audit report is effective as of February 21, 2022, the independent auditor's report date. Accordingly, certain material subsequent events or circumstances may have occurred during the period from the date of the independent auditor's report to the time this report is used. Such events and circumstances could significantly affect the accompanying financial statements and may result in modifications to this report.





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# Appendix

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3. Contributing Departments & Authors by Section	148



# 1. Overview of Bank of Korea

## (1) History and Mission

The Bank of Korea was established on June 12, 1950, following the passage of the Bank of Korea Act on May 5 of that year, to serve as the central bank of Korea with the purposes of stabilizing the value of the national currency, promoting the soundness of the banking and credit systems, and developing the Korean economy. This took place against a backdrop of hyperinflation and economic turmoil in the years immediately after Korea's liberation from Japan. The Bank began initially as a government-invested organization with paid-in capital of 1.5 billion won, but was later reorganized in 1962 as a non-capital special organization in accordance with the first revision of

the Bank of Korea Act.

At the time of its enactment, the Bank of Korea Act specified the Bank's role as the central bank in devising and implementing monetary, credit and foreign exchange policies. In 1962, however, the Act was revised in a direction that enabled the Bank to actively support the government-led economic growth initiatives. Its top decision-making body, the Monetary Policy Board, was accordingly renamed the Monetary Board of Korea, while the number of its government-nominated members increased significantly. In addition, most of its functions related to the formulation of foreign exchange policy and management of the foreign exchange reserves were transferred to the government.

From the late 1980s, in line with the promotion of financial liberalization, there were active discussions regarding the expansion of

Figure Appendix- 1. The First Monetary Policy Board Meeting (June 5, 1950)



Source: Bank of Korea

the central bank's role in maintaining price stability as well as its independence, leading to amendments of the Bank of Korea Act in 1997 and 2003. The reforms in the 1997 amendment included the introduction of an inflation targeting regime and the restoration of the name Monetary Policy Board, while all Board members were given the position of standing member. In addition, the position of Board chair was transferred from the Minister of Finance and Economy to the Governor of the Bank. This change served to enhance the neutrality and autonomy of the Bank. However, the authority to supervise banks moved from the Bank to a newly-established joint financial supervisory institution. The 2003 revision of the Act meanwhile stipulated the operation of inflation targeting from a medium-term perspective, while the Bank was delegated the additional functions of oversight and monitoring of the payment and settlement systems. In addition, the Senior Deputy Governor of the Bank was given the position of ex-officio member of the Monetary Policy Board, and

the portion of the budget subject to prior government approval was narrowed from encompassing all expenditures to covering only expenditures classified as salary.

The global financial crisis provided an impetus for accelerated discussions of legislative amendments to strengthen the Bank's function of financial stabilization, so as to establish conditions to facilitate the prevention of financial instability and the implementation of swift countermeasures in response to financial crises. This led to another revision of the Bank of Korea Act in 2011. The revised Act stipulates the purpose of the Bank as the promotion of price stability through the formulation and implementation of effective monetary policy, with a focus on financial stability in the process. The Act thus states that the Bank, being in charge of monetary policy, has a mandate for financial stability alongside its primary objective of price stability. Under the revision of the Act in 2012, it was then stipulated that candidates for the post of Governor of the Bank must pass through a Na-

Figure Appendix- 2. Monetary Policy Board Meeting (Oct. 12, 2021)



Source: Bank of Korea

tional Assembly confirmation hearing process prior to appointment. In addition, the Act was revised in 2018 for the purpose of introducing a system of staggered terms,<sup>182)</sup> which ensures service terms of varying lengths for members of the Monetary Policy Board by adjusting the term lengths of some members, and adding local governments to the list of entities that are subject to the collection of data for the Bank's statistics and economic survey activities.

## (2) Organization

The Bank of Korea's leadership consists of the following: the Monetary Policy Board, which deliberates and decides on matters related to monetary policy and the operations of the Bank; the executive body, comprising the Governor, the Senior Deputy Governor, the Deputy Governors, the head office divisions, domestic branches, etc.; and the Auditor, whose role is to regularly audit the Bank's business operations.

### A. Monetary Policy Board

The Monetary Policy Board serves as the Bank of Korea's top decision-making body, and maintains the authority to deliberate and decide on matters of monetary policy and the operations of the Bank. The Board is composed of seven members, including the Governor and the Senior Deputy Governor of the Bank as ex-officio members, as well as five appointed members. The five appointed members are individuals with substantial experience or outstanding expertise concerning finance, economics or industry who are appointed by the President of Korea on the recommendation of pertinent organizations<sup>183)</sup> to serve as standing members on the Board.<sup>184)</sup> Board members serve four-year terms,<sup>185)</sup><sup>186)</sup> with the exception of the Senior Deputy Governor whose term is three years, and are eligible for reappointment.<sup>187)</sup> The Governor also serves as the Chair of the Board. The Chair represents the Monetary Policy Board and presides over Board meetings. If the Chair is unable to conduct their duties owing to unavoidable circumstances, a member appointed in advance by the Board serves as acting Chair.

182) In accordance with the revision of the Act, the term of members, which is initially recommended by the Governor of Bank of Korea and the Chairperson of the Financial Services Commission, was adjusted to three years from four years (stipulated in Addenda) and the term of a member who is not appointed immediately after the expiration of the predecessor's term shall be deemed to have commenced immediately after the expiration of the predecessor's term so as to maintain the staggered term structure.

183) Recommendations are put forward by the Minister of Economy and Finance, the Governor of the Bank of Korea, the Chairman of the Financial Services Commission, the Chairman of the Korea Chamber of Commerce and Industry or the Chairman of the Korea Federation of Banks.

184) Following the revision of the Bank of Korea Act on Dec. 31, 1997 (enforced on April 1, 1998), all appointed members were given the position of standing member, in contrast to their previously temporary roles, so as to enhance their accountability for and expertise on monetary policy.

185) In accordance with the introduction of staggered terms for the Monetary Policy Board in March 2018, the service term of three years is applicable only to prospective members who were appointed on the recommendation of the Governor of the Bank of Korea and the Chairperson of the Financial Services Commission.

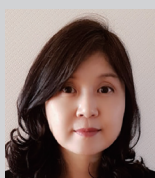
186) Park Ki Young, who began his term as a member of the Monetary Policy Board on Oct. 6, 2021, will serve the remaining term (of the three-year term) in place of former board member Koh Seungbeom.

187) The Governor and the Senior Deputy Governor of the Bank of Korea may be reappointed only once each to serve a consecutive term.

**Figure Appendix- 3. Members of the Monetary Policy Board  
(as of Dec. 31, 2021)**



**Lee, Juyeol**  
Governor of Bank of Korea, since April 1, 2014  
Major Work Experience  
Senior Deputy Governor, BOK  
Deputy Governor, BOK  
Director General, Monetary Policy Dept., BOK



**Lim, Jiwon**  
Recommended by the Chairman of the Korea Federation of Banks, since May 17, 2018  
Major Work Experience  
Managing Director and Chief Korea Economist, J.P. Morgan  
Member, National Economic Advisory Council  
Chief Researcher, Samsung Economic Research Institute



**Cho, Yoon-Je**  
Recommended by the Minister of Economy and Finance, since April 21, 2020  
Major Work Experience  
Dean, Graduate School of International Studies, Sogang Univ.  
Advisor to the President on Economics Policy  
Chief Economist, IMF/WB



**Suh, Young Kyung**  
Recommended by the Chairman of the Korea Chamber of Commerce and Industry, since April 21, 2020  
Major Work Experience  
Director general, SGI, Korea Chamber of Commerce and Industry  
Deputy Governor, BOK  
Director, Financial Markets Dept., BOK



**Joo, Sangyong**  
Recommended by the Chairman of Finance Services Commission, since April 21, 2020  
Major Work Experience  
Professor, Konkuk Univ.  
Member, National Economic Advisory Council  
Research Fellow, KIEP



**Lee, Seungheon**  
Senior Deputy Governor of Bank of Korea, since Aug. 21, 2020  
Major Work Experience  
Deputy Governor, BOK  
Director General, International Dept., BOK  
Press Officer, BOK



**Park, Ki Young**  
Recommended by the Governor of Bank of Korea, since Oct. 6, 2021  
Major Work Experience  
Professor, Yonsei Univ.  
Member, National Economic Advisory Council  
Asst. Professor, University of Maryland, Baltimore County

Source: Bank of Korea

The Board reviews and resolves decisions regarding the Base Rate, the issuance of Bank of Korea notes, loan and deposit policies, open market operations, payments and settlements, and inspections of financial institutions. It also deliberates and decides on general issues concerning the management of the Bank, including its budget, settlement of accounts, organizational framework, staff remuneration policy, etc. Except in special cases, resolutions are adopted through simple majority votes among members present at meetings, requiring the attendance of at least five members as a quorum.

Board plenary meetings are divided into regular meetings, normally scheduled on the Thursdays of the second and fourth weeks of every month, and ad hoc meetings convened by the Chair if deemed necessary by the Chair or at the request of at least two members.

In 2021, the Board held 26 plenary meetings, consisting of 24 regular meetings and two ad hoc meetings. In addition, it held 89 consultation meetings for purposes such as exchanges of opinions among members on financial and economic conditions, discussions of major current issues and preliminary deliberations on items to be proposed in the plenary meetings, as well as 14 meetings for deliberations on the Bank's budget and settlement of accounts.

**Table Appendix- 1. Number of Monetary Policy Board Meetings**

Year	Plenary			Consultations	Deliberations	Total
		Regular	Ad-hoc			
2019	25	24	1	78	16	119
2020	28	24	4	87	16	131
2021	26	24	2	89	14	129

Source: Bank of Korea



The Board announces the dates of its plenary meetings in advance for the following year. The plenary meetings are held a total of 24 times throughout the year, including eight sessions for the determination of the monetary policy direction and four sessions devoted to Financial Stability Meetings. The minutes of each Board plenary meeting are recorded and stored in written form. In addition, in order to strengthen the transparency and accountability of the Bank's monetary policy, the minutes of the meetings to determine its monetary policy decisions are publicly disclosed on the first Tuesday following two weeks after a meeting.

## B. Executive Officers and Auditor

The executive officers of the Bank of Korea include the Governor, the Senior Deputy Governor, and five Deputy Governors. The Governor is appointed to a four-year term by the President of Korea following deliberation by the Cabinet and a National Assembly confirmation hearing,<sup>188)</sup> and may be reappointed once to serve a consecutive term. The Senior Deputy Governor is chosen by the President for a three-year term upon the Governor's recommendation, and may also be reappointed once to a consecutive term. As Chair of the Monetary Policy Board, the Governor participates in the Board's decision-making process and executes the monetary policy as set by the Board, while exercising the authority granted to them by the Bank of Korea Act and other legislation as head of the Bank. The Governor is also obligated to notify the Board of matters requiring its attention, and to provide it with

data and opinions necessary for its deliberation and decision-making processes. The current Governor, Lee Juyeol, was appointed on April 1, 2014, and was reappointed to serve a consecutive term on April 1, 2018.

The Senior Deputy Governor, as a member of the Monetary Policy Board, participates in the process of decision-making by the Board, alongside the Governor, and assists the Governor in all matters concerning the Bank. If the Governor is unable to conduct their duties owing to unavoidable circumstances, the Senior Deputy Governor serves as acting Governor.

The Deputy Governors are chosen by the Governor, and serve three-year terms to assist the Governor and the Senior Deputy Governor.

The Bank employs one Auditor who is appointed by the President upon the recommendation of the Minister of Economy and Finance, and who also serves a three-year term. The Auditor regularly monitors the Bank's operations and reports all findings to the Monetary Policy Board.

## C. Departmental Organization and Responsibilities

As of the end of 2021, the Bank of Korea has 17 departments and 11 sub-department offices at its head office, with a subordinate structure of 20 divisions and 148 teams. There are 16 domestic branches of the Bank across Korea, supported by seven regional economy research divisions and 54 teams. There are also five overseas representative offices in operation. As of the end of 2021, the number of

188) Required since April 22, 2012, pursuant to the ninth revision of the Bank of Korea Act, a National Assembly confirmation hearing was held for Lee Juyeol, the first Governor of the Bank to be appointed after the revised Act entered into effect.

Bank employees stood at 2,417.<sup>189)</sup>

The functions of the individual departments, branches, etc., are as follows.

### Planning & Coordination Department

Develops and promotes management strategies, manages operational risk, manages the organization and its human resources, formulates the budget and settles accounts, coordinates functions among departments, coordinates and integrates activities of the domestic branches and overseas representative offices, and conducts research into regional economies. It also oversees the management of the minutes of the Monetary Policy Board meetings, of the review of laws and regulations, and of digital innovation.

### Communications Department

Coordinates and takes overall charge of communication activities, including the collection of internal and external opinions, performs PR activities, including operating the Bank of Korea Money Museum, manages informational material, prepares the Annual Report and provides economic education to the public.

### Information Technology Department

Provides information technology services, including the development and operation of the Bank's information systems and infrastructure.

**Figure Appendix- 4. Executive Officers and Auditor**  
(as of December 31, 2021)



Governor  
**Lee, Juyeol**  
(since April 1, 2014)



Senior Deputy Governor  
**Lee, Seungheon**  
(since Aug. 21, 2020)



Deputy Governor  
**Park, Jongseok**  
(since July 25, 2019)



Deputy Governor  
**Lee, Hwanseok**  
(since March 9, 2020)



Deputy Governor  
**Bae, Joonsuk**  
(since Nov. 24, 2020)



Deputy Governor  
**Min, Jwa Hong**  
(since May 17, 2021)



Deputy Governor  
**Lee, Sang Hyeong**  
(since July 22, 2021)



Auditor  
**Kang, Sungjun**  
(since Sept. 10, 2021)

Source: Bank of Korea

189) This figure excludes 13 persons, including the Governor, the members of the Monetary Policy Board, including the Senior Deputy Governor, the Executive Officers and the Auditor.



### **Human Resources & Administration Department**

Administers the management of human resources, the delivery of wages and welfare benefits, the Bank's real estate and facilities management, security, etc.

### **Bank of Korea Academy**

Provides professional education and training for the Bank's employees.

### **Research Department**

Conducts analyses of macroeconomic trends and prospects, analyses of industrial trends and research on industrial policies, and analyses of employment and related prospects; suggests the inflation target and performs related research; and develops and analyzes econometric models. It also handles work related to the analysis and forecasting of overseas economic trends.

### **Economic Statistics Department**

Organizes, analyzes, and produces economic statistics on the national income, money and finance, the balance of payments, prices, flow of funds charts, input-output tables, national balance sheet, and business management analyses. It also evaluates the quality of the Bank's statistics and operates the Economic Statistics System (ECOS).

### **Financial Stability Department**

Carries out the analysis and comprehensive evaluation of financial stability conditions; measures, analyzes and develops models

related to systemic risks; analyzes macroprudential policy instruments and their transmission mechanisms; conducts research on banks and non-bank financial institutions; performs research on the overall financial system; and prepares the Financial Stability Report. It also conducts management analysis and inspections of financial institutions.

### **Monetary Policy Department**

Drafts the Bank's monetary policy; plans and implements specific policy measures; analyzes the conditions for and effects of monetary policy; conducts research and studies on pending issues related to monetary and credit policy; and prepares the Monetary Policy Report.

### **Financial Markets Department**

Implements monetary policy through open-market operations; analyzes and forecasts monetary conditions and interest rates; and analyzes financial market and corporate finance trends.

### **Payment & Settlement Systems Department**

Supervises the operation, management, and monitoring of the payment and settlement systems; carries out research and studies into payment and settlement systems; conducts planning and research for electronic finance; promotes financial informatization; and oversees tasks related to loans and deposits, operation of the national treasury, securities, and funds.

**Currency Department**

Carries out the issuance, distribution, and control of currency, as well as research and investigation into currency and banknote issuance systems. It also handles matters related to the mechanization of the banknote issuance process.

**International Department**

In charge of planning, research, and analysis in connection with foreign exchange and international finance. It provides services related to the foreign exchange markets and exchange rates; manages foreign reserves and foreign debt; reports on foreign exchange transactions and provides the relevant follow-up management; monitors and examines foreign exchange transactions; and operates the foreign exchange computer network.

**International Affairs Department**

Carries out planning and research related to international cooperation; handles exchanges with international financial institutions and central banks; and engages in cooperative efforts on financial information.

**Reserve Management Group**

Conducts planning for the Bank’s foreign currency asset management; manages the overseas operations and risks of its foreign currency assets; and analyzes their management performances.

**Economic Research Institute**

Oversees medium- to long-term research

on currency and finance, financial systems, international banking, international trade, macroeconomics, industry, labor, and the North Korean economy, while engaging in research exchanges with other countries.

**Audit Department**

Audits the operations of the Bank of Korea.

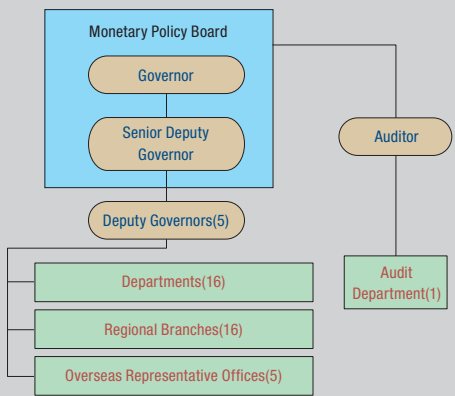
**Regional Branches**

Conduct research on the regional economies, as well as business related to currency supply and demand, the receipt of Treasury funds, and securities management.

**Overseas Representative Offices**

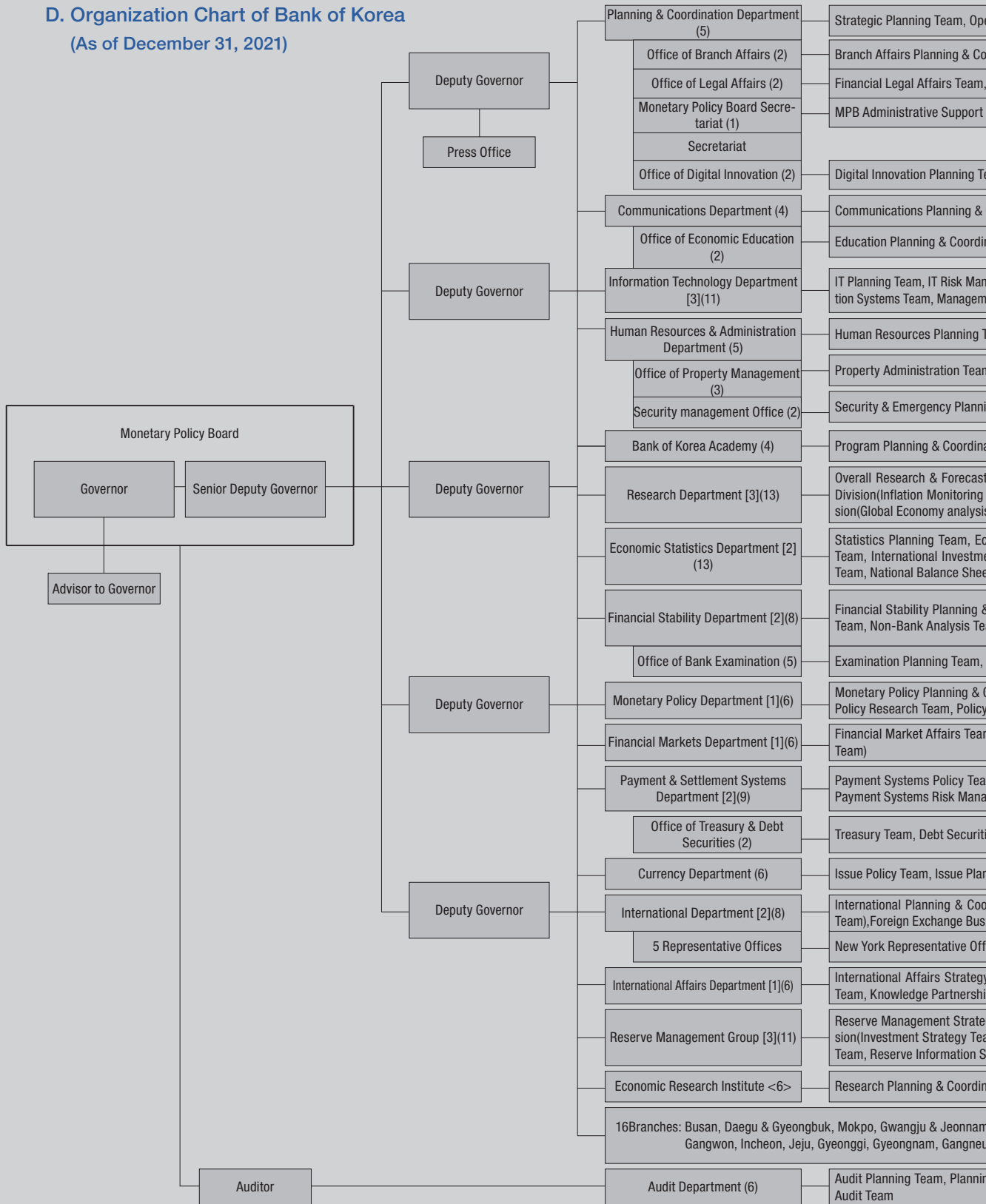
Undertake research on finance and the economies of their host countries and neighboring regions of interest; information gathering; and overseas management of the foreign currency assets of the Bank of Korea.

Figure Appendix- 5. Organization



Source: Bank of Korea

## D. Organization Chart of Bank of Korea (As of December 31, 2021)



Notes : 1) Busan, Daegu & Gyeongbuk, Gwangju & Jeonnam, Jeonbuk, Daejeon & Chungnam, Gangwon, Incheon, Jeju, Gyeonggi, Gyeongnam, Gangnam 2) Busan, Daegu & Gyeongbuk, Gwangju & Jeonnam, Daejeon & Chungnam, Incheon \* [ ] Divisions, ( ) Teams, < > Teams in Economic Research Institute

Operational Risk Team, External Affairs Team, Organization Team, Budget & Accounting Team	
Coordination Team, Regional Economies Team	
General Legal Affairs Team	
Team	
Team, Data Service Team	
Coordination Team, Communications Management Team, New Media Team, BOK Money Museum Team	
Education Team, Education Team	
Management Division(IT Risk Management Team, IT Security Team, IT Quality Management Team),Information Systems Division(Accounting Information Systems Team, Settlement Information Systems Team,Policy Information Systems Team), IT Infrastructure Division(Accounting & Settlement Server Team,General Server Team,Network & Data Center Team)	
Team,Human Resources Management Team, Payroll & Welfare Team,Labor Relations Team,Expense Accounting Team	
Team, Facilities Administration Team, Procurement Service Team	
Planning Team, Security Administration Team	
Education Team, Program Design & Management Team, Administration & Support Team, Faculty Team	
Planning Team, Economic Activities Analysis Team, Macroeconomic & Fiscal Research Team, International Trade Research Team, Labor Market Research Team, Inflation Research & Forecasting Team, Inflation Analysis Team), Macroeconomic Modeling Division(Model Forecasting Team, Macroeconomic Model Study Team),Global Economy Research Division(U.S. & Europe Economies Team, Asia-Pacific Economies Team, China Economies Team)	
Economic Survey Team, Statistics Information Team, Monetary & Financial Statistics Division(Monetary & Financial Statistics Team, Flow of Funds Team, Balance of Payments Team, U.S. & Europe Economies Team, Corporate Statistics Team), National Accounts Division(National Accounts Coordination Team, National Expenditure Statistics Team, Input-Output Statistics Team, Price Statistics Team)	
Policy & Coordination Team, Systemic Risk Analysis Team, Financial Stability Analysis Team, International Financial Regulation Team, Financial System Analysis Division(Bank Analysis Team), Financial Stability Research Division(Financial Stability Research Team, Financial System Research Team)	
Commercial Bank Team I, Commercial Bank Team II, Specialized Bank Team, Internet Bank Team	
Coordination Team, Credit & Reserves Policy Team, Monetary Policy Analysis Team, Monetary Policy Communication Team, Monetary Policy Research Division(Monetary & Credit Policy Framework Research Team)	
Team, Market Operations Team, Money Markets Team,Financial Markets Research Team, Capital Markets Division(Fixed Income Markets Team, Equity Markets & Corporate Finance	
Team, Payment Systems Research Team, Payment Systems Management Team, Loans & Settlements Team, Payment Systems Oversight Division(Payment Systems Stability Team, Management Team), e-Finance Division(e-Finance Planning Team, e-Finance Research Team, Digital Currency Research Team	
Services Team	
Planning Team, Cash Services Team, Cash Processing Team I, Cash Processing Team II, Currency Research Team	
Coordination Team,Foreign Exchange Accounting Team,Foreign Exchange Market Team,International Finance Division(Capital Flows Analysis Team,International Finance Research Division(Foreign Exchange Review Team, Foreign Exchange Investigation Team,Foreign Exchange Information Management Team)	
Office, Frankfurt Representative Office, Tokyo Representative Office, London Representative Office, Beijing Representative Office	
Policy & Coordination Team, International Organizations Team, Regional Organizations Team, Financial Cooperation Team, International Cooperation Division(International Relations Support Program Team)	
Policy Division(Reserve Management Planning Team, Risk Management Team, External Fund Management Team I, External Fund Management Team II), Reserve Investment Division, Treasuries Portfolio Team I, Treasuries Portfolio Team II, Credit Portfolio Team, Asset-Backed Securities Portfolio Team), Reserve Management Support Division(Settlement System Team)	
Education Team, Financial & Monetary Economics Team, International Economics Team, Macroeconomics Team, Micro & Institutional Economics Team, North Korean Economy Team	
Seoul, Jeonbuk, Daejeon & Chungnam, Chungbuk, Gyeonggi, Ulsan, Pohang, Gangnam	General Administration Team <sup>1)</sup> , Regional Economy Research Division(Planning & Financial Research Team, Economic Research Team) <sup>2)</sup> , Regional Economic Research Team <sup>3)</sup> , Credit, Reserves & Administration Team, Cash Processing Team <sup>4)</sup>
Planning & Administration Audit Team, Policy Making & Operation Audit Team, Foreign Reserve Management & International Business Audit Team, Research & Statistics Audit Team, IT	

1) Gyeongbuk, Gwangju & Jeonnam, Daejeon & Chungnam, Gangwon, Jeju, Gyeonggi 3) Mokpo, Jeonbuk, Chungbuk, Incheon, Gyeongnam, Gangneung, Ulsan, Pohang 4) Busan,

## 2. Minutes of the Monetary Policy Board Meeting

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### QR BOX



#### QR 1

Minutes of the Monetary  
Policy Board Meeting  
(January 2021)



#### QR 2

Minutes of the Monetary  
Policy Board Meeting  
(February 2021)



#### QR 3

Minutes of the Monetary  
Policy Board Meeting  
(April 2021)



#### QR 4

Minutes of the Monetary  
Policy Board Meeting  
(May 2021)



#### QR 5

Minutes of the Monetary  
Policy Board Meeting  
(July 2021)



#### QR 6

Minutes of the Monetary  
Policy Board Meeting  
(August 2021)



#### QR 7

Minutes of the Monetary  
Policy Board Meeting  
(October 2021)



#### QR 8

Minutes of the Monetary  
Policy Board Meeting  
(November 2021)

### 3. Contributing Departments & Authors by Section

Section	Author	
I. Economic Trends		
1. Real Economy		
A. Global Economy	Research Dept.	Park, Kwangyong
B. Domestic Economy	Research Dept.	Park, Sang Woo Lee, Eun Song Song, Sang Yoon Lee, Jaejin Shin, Dong Su Ju Wuk Min, Eunji Lee, Jae Min
	Office of Branch Affairs	
2. Financial and Foreign Exchange Markets		
A. International Financial Markets	International Dept.	Kwon, Na Eun
B. Domestic Financial Markets	Financial Markets Dept. International Dept.	Oh, Kyungheon Lee Jae Young Shin, Jun Sik
II. Bank of Korea's Conduct of Its Business		
1. Medium-term Strategies	Planning & Coordination Dept.	Kim Bu Kyoung
2. Monetary Policy		Choi, Jong Yoon
A. Inflation Target	Research Dept. Monetary Policy Dept.	Kim, Chanwoo Park, Jongik
B. Base Rate	Monetary Policy Dept.	Park, Jongik
C. Lending and Deposit Facilities	Monetary Policy Dept. Payment & Settlement Dept.	Lee, Eun Kook Jeong, Na Ri Jeong, Sang Woon Jung Young Suk Han, Jung Hee
D. Open Market Operations	Financial Markets Dept.	Park Seon Uk
E. Monetary Policy Communication	Monetary Policy Dept. Monetary Policy Board Secretariat Communication Dept.	Park, Jongik Ahn, Huihun Han Sang Woo Lee, Chaehyeon
3. Financial Stability		
A. Analysis and Assessment of Macroprudential Stability	Financial Stability Dept.	Jung Chun Soo
B. Foreign Exchange Market Stabilization Measures	International Dept.	Kwon, Na Eun
C. Expansion of Multilayered Financial Safety Nets	International Affairs Dept.	Kim Min Young
D. Operation of an Emergency Response System in Anticipation of Financial Instability Factors	Financial Markets Dept.	Oh, Kyungheon

Section	Author	
4. Currency Issuance		
A. Issuance	Currency Dept.	Lee, Tae Gum Lee, Ga Young Yoon, Hyo Jin
B. Circulation	Currency Dept.	Lee, Ga Young Yoon, Hyo Jin
C. External Cooperation	Currency Dept.	Lee, Ga Young
5. Payment and Settlement Business		
A. Operation of BOK-Wire+	Payment & Settlement Systems Dept.	Kim, Duckhyung
B. Oversight and Risk Management	Payment & Settlement Systems Dept.	Kim, Duckhyung
C. Improvement of Payment and Settlement Systems	Payment & Settlement Systems Dept.	Kim, Duckhyung
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A. Foreign Exchange	International Dept.	Kwon, Na Eun Lee Jae Young Shin, Jun Sik Cho, Ji Eun
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C. International Cooperation	International Affairs Dept.	Kim Min Young
7. Research and Statistics		
A. Research Activities	Research Dept. Economic Research Institute Office of Branch Affairs	Lee, Gyuhan Lee, Kyeongtae Park, Jong Pil
B. Compilation of Statistics	Economic Statistics Dept.	Lee, Jisun Lee, Yelim
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B. Securities	Office of Treasury & Debt Securities	Lee Jiseon
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9. External Communications		
A. Expansion of Public Communication	Communications Dept.	Han Sang Woo Lee, Chaehyeon Seol, Bumyoung Ryu, Hyon Jeong
B. Strengthening Economic and Financial Education	Planning & Coordination Dept. Office of Economic Education	Kim, Kwang Ryong Seo, Ha Na

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