ISSN 2005-2707

Monetary Policy Report

2020. 9

BANK OF KOREA

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

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

BANK OF KOREA

Monetary Policy Report

2020. 9

The Bank of Korea sets and implements its monetary and credit policies in order to contribute to the sound development of the national economy by pursuing price stability, and in the process pays attention to financial stability as well.

The Bank of Korea Act stipulates that the Bank of Korea, to fulfill its accountability corresponding to these mandates, should compile at least twice each year a report on the implementation of its monetary and credit policies.

In line with this the Bank of Korea prepares the Monetary Policy Report, containing the details of and backgrounds to its monetary policy decisions, the future monetary policy directions, etc., four times per year, and submits it to the National Assembly.

This September 2020 Monetary Policy Report has been drawn up to cover the time period from after the Monetary Policy Board meeting for monetary policy decision-making in May 2020 through the date of the Monetary Policy Board meeting for monetary policy decision-making in August 2020.

We sincerely hope that this Monetary Policy Report will be of help in ensuring that the public well understands the Bank of Korea's monetary policy operations, and forms rational expectations concerning the future policy directions.

<Bank of Korea Act>

Article 96 (Reporting to National Assembly)

(1) The Bank of Korea shall prepare an assessment report on progress in implementing monetary and credit policies and macro-financial stability conditions at least twice every year and submit it to the National Assembly.

(2) The Governor shall attend a meeting and answer questions, when the National Assembly or any of its committees requests him/her to attend the meeting in connection with the report submitted pursuant to paragraph (1).

This Monetary Policy Report is published in accordance with the provision of Article 96 of the Bank of Korea Act, and upon the resolution of the Monetary Policy Board.

September 2020

Juyeol Lee

Lee, Juyeol

Governor

Bank of Korea

Monetary Policy Board

Chairman	Lee, Juyeol
Member	Koh, Seung Beom
Member	Lim, Jiwon
Member	Cho, Yoon-Je
Member	Suh, Young Kyung
Member	Joo, Sangyong
Member	Lee, Seungheon

General Principles of Monetary Policy Operation

The Bank of Korea Act stipulates the goal of monetary policy as follows: "The Bank shall contribute to the sound development of the national economy through ensuring price stability, while giving due consideration to financial stability in carrying out its monetary policy." In order to enhance transparency, predictability and effectiveness of monetary policy, the Bank will carry out its task by setting specific targets and objectives in accordance with this goal.

☐ **(Inflation targeting)** The Bank of Korea maintains a flexible inflation targeting system to effectively achieve price stability, which is the primary objective of monetary policy. The inflation target is currently set at 2.0% in terms of consumer price inflation (year-on-year).

- **(Medium-term horizon)** The inflation target is meant to be achieved over a medium-term horizon, since consumer price inflation is affected not only by monetary policy but also by various other factors at home and abroad, which entail transitory and irregular impacts and the lag in monetary policy transmission.
- **(Forward-looking operation)** The Bank conducts its monetary policy in a forward-looking manner, while considering symmetrically the risks of inflation remaining persistently above or below the target.
    - The path of convergence of inflation toward the target is assessed on overall inflation and growth outlooks as well as their uncertainties and risks, and on financial stability conditions.
- **(Flexible operation)** The Bank conducts its monetary policy to support real economic growth to the extent that this does not hinder attaining the inflation target over the medium-term.

☐ **(Consideration of financial stability)** In ensuring price stability over the medium-term, the Bank pays careful attention to the impact of monetary policy on financial stability.

- **(Relationship with inflation targeting)** As persistent financial imbalance could undermine macroeconomic stability, paying due attention to financial stability in conducting monetary policy is consistent with the rationale behind flexible inflation targeting.
- **(Examination of financial stability)** The Bank examines, assesses and announces financial stability conditions on a regular basis, to prevent excessive buildup of financial imbalances that may be brought about by monetary policy implementation.
- **(Harmonization with macroprudential policy)** Since there are limits to maintaining financial stability solely by monetary policy that indiscretely affects the whole economy, monetary policy needs to be complemented by macroprudential policies to prevent accumulation of financial imbalance.

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Executive Summary

[Monetary Policy Operating Conditions]

1 A look at financial and economic conditions in Korea and abroad between May and August 2020 finds the following. Global economic growth contracted sharply, and then the sluggishness eased somewhat, thanks to partial economic reopening. In the US and the euro area, consumption and industrial production rebounded and sentiment indices improved after May. Meanwhile, China saw its growth rate for the second quarter turning positive due to a rapid normalization in production activities and increased investments in infrastructure and housing construction.

Economic growth in major economies[1)]

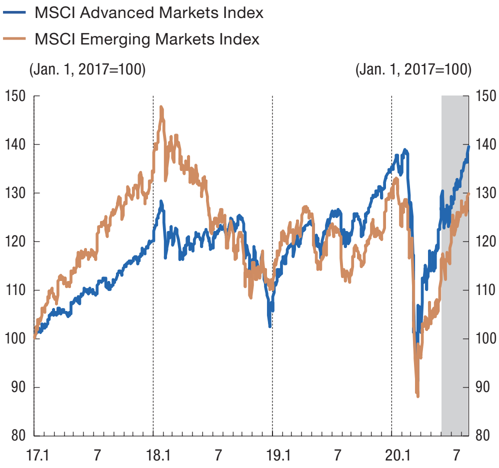
(%)

	2017	2018	2019				2020	
	Year	Year	Year	Q2	Q3	Q4	Q1	Q2
US	2.3	3.0	2.2	-0.4	0.6	0.6	-1.3	-9.1
Euro area	2.6	1.9	1.3	0.2	0.3	0.0	-3.6	-12.1
Japan	2.2	0.3	0.7	0.4	0.0	-1.8	-0.6	-7.8
China	6.9	6.7	6.1	6.2	6.0	6.0	-6.8	3.2

Note: 1) The quarterly rates of growth are quarter-on-quarter (seasonally adjusted) for the US, Japan and the euro area, and year-on-year for China.
Sources: Individual countries' published statistics.

The international financial market saw generally stable movements on continuing hopes for economic recovery, stemming from the continued accommodative monetary policy by the US Federal Reserve, more-favorable-than-expected economic indices, etc. Global stock prices remained on the rise in both advanced and emerging economies, owing primarily to the announcements of stronger-than-expected corporate performances, despite the resurgence of COVID-19 in major economies. The US dollar weakened against the euro and the yen, affected for instance by expectations of continued accommodative monetary policy by the US Federal Reserve and eased risk aversion.

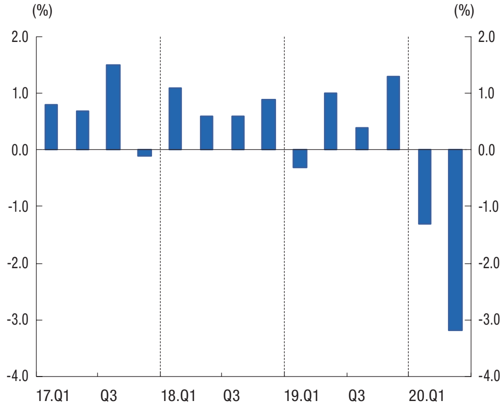
Share price indices of advanced and emerging markets



Source: Bloomberg.

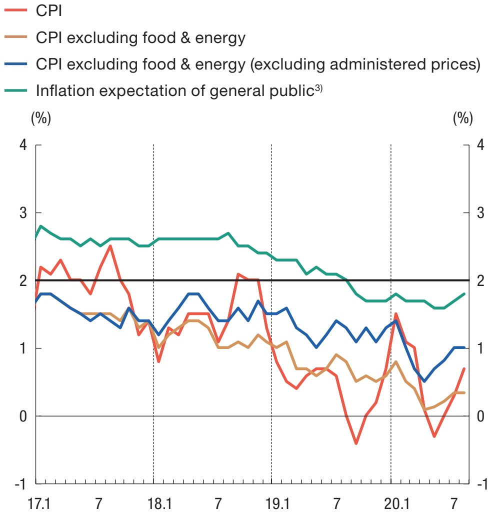
2 In the Korean economy, growth shrank considerably. Real GDP in the second quarter declined by 3.2% compared to the quarter before. Specifically, exports fell considerably and constraints on the recovery of investment remained as a result of the global spread of COVID-19, while the consumption recovery remained weak. Meanwhile, sluggish employment conditions continued, with a steep decline in the number of persons employed continuing, particularly in services industries which are heavily dependent upon face-to-face work.

Real GDP growth[1)]



Note: 1) Quarter-on-quarter (seasonally adjusted).
Source: Bank of Korea.

Inflation[1)2)]

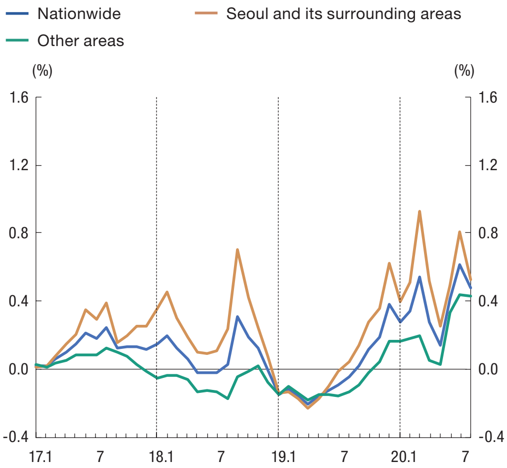


Notes: 1) The bold line indicates the inflation target.
2) Year-on-year.
3) Expectations for the CPI inflation rate one year in the future.
Sources: Bank of Korea, Statistics Korea.

3 Consumer price inflation slowed rapidly after the spread of COVID-19 and fluctuated at around 0% in the second quarter. It then ran in the mid-0% range between July and August, affected by a recent rebound in international oil prices, and limited supply of vegetables and fruits resulting from heavy rains. Core inflation excluding food and energy prices rose to the mid-0% level, and the inflation rate expected by the general public also rose slightly.

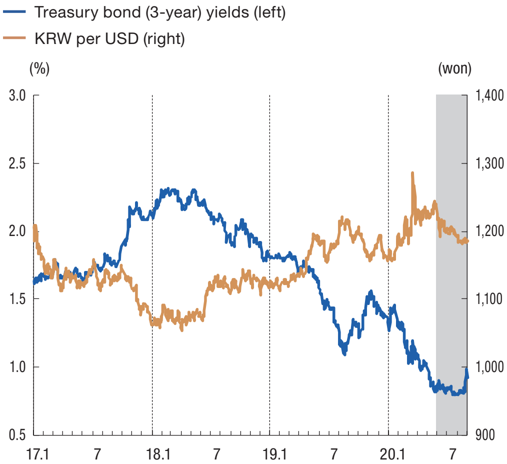
The upward trend of housing sales prices accelerated in Seoul and its surrounding areas after June due to heightened expectations of higher housing prices. The rate of increase then narrowed in August, due in part to the government's housing market stabilization measures. Leasehold (*jeonse*) deposit prices rose at a faster pace.

Housing sales price growth rate[1)]



Note: 1) Month-on-month.
Source: Korea Appraisal Board.

Korean Treasury bond yield and exchange rate (KRW per USD)

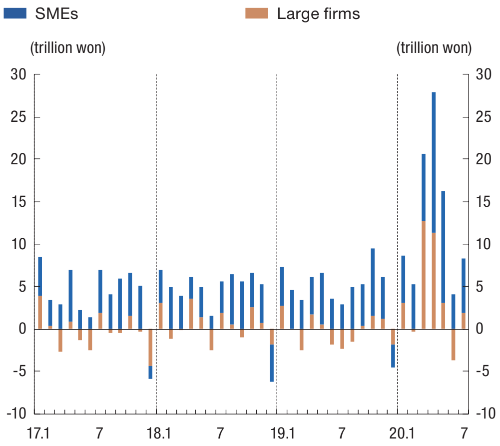


Sources: Bank of Korea, KOFIA.

4 In the domestic financial markets, long-term market interest rates fluctuated within a narrow range, influenced for instance by the development of the COVID-19 pandemic and details of the announcements of domestic and international economic indices, and then rose slightly in late August, due in part to large net sales of Treasury bond futures by foreigners. Stock prices remained on the rise, on stronger-than-expected corporate performances at home and abroad, and expectations of additional economic stimulus packages in major economies. The extent of the rise then slowed partially after mid-August, as concerns about the domestic resurgence of the COVID-19 emerged. The Korean won/US dollar exchange rate showed a declining trend on the global weakening of the US dollar and the extension of the bilateral currency swap agreement between the Bank of Korea and the US Federal Reserve.

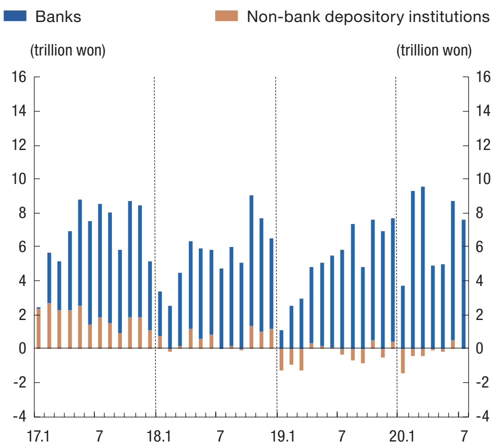
5 Corporate lending, after showing record-high increases between March and May, continued to grow by a large amount after June as well, on increased demand for working capital following the COVID-19 pandemic, and ongoing support by the government, the Bank of Korea and financial institutions. The pace of growth in household lending slowed in April and May, and then increased significantly after June, due mainly to increased demand for funds related to housing sales and leasehold transactions.

Changes in corporate loans[1)2)]



Notes: 1) Month-on-month.
2) Based on banks.
Source: Bank of Korea.

Changes in household loans[1)2)3)]

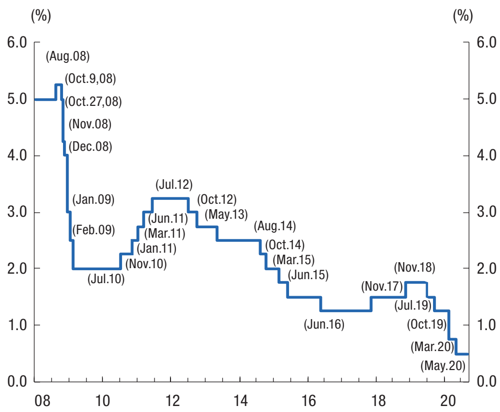


Notes: 1) Month-on-month.
2) Including mortgage transfers.
3) Figures for July 2020 are based on the Bank of Korea advance estimate for banks and have not been released for non-bank depository institutions.
Source: Bank of Korea.

[Conduct of Monetary Policy]

6 The Bank of Korea maintained its accommodative policy stance to support the recovery of growth and to help inflation stabilize at the 2.0% target over a medium-term horizon. In this process it closely examined risk factors such as the development of the COVID-19 pandemic, its financial and economic impacts at home and abroad, and changes in financial stability conditions. Under this policy stance, the Bank maintained the Base Rate at 0.50% per annum.

Bank of Korea Base Rate[1)]



Note: 1) Figures in parentheses refer to the months of Base Rate adjustments.
Source: Bank of Korea.

7 A detailed look at the Base Rate decisions during this period, and the backgrounds behind them, are as follows:

At the July meeting, the Board decided to leave the Base Rate unchanged at 0.50% considering that it was necessary to monitor the effects of the multi-faceted monetary and fiscal measures taken so far on real economic activities and the financial markets amid high uncertainties surrounding the growth path depending upon the development of COVID-19. The domestic economy remained sluggish, as exports continued to decline, the adjustment in construction investment continued, and the recovery in facilities investment was delayed, although consumption had rebounded with the relaxation of some pandemic-related restrictions on economic activity and the government's stimulus package. Looking ahead, the Board saw the domestic economy as likely to improve gradually in the second half of the year, but the trend of improvement as likely to be affected largely by the development of the pandemic. Specifically, it was expected that the trend of recovery would be weaker than expected as improvement in exports, which are closely associated with the global economy, was delayed. Consumer price inflation fluctuated at around 0%, held down by a (year-on-year) decline in the prices of petroleum products and public services. It was forecast that consumer price inflation would run at the lower-0% level for some time, reflecting prolonged effects from the low global oil prices and weak inflationary pressures. On the financial stability side, housing prices accelerated and the increase in household loans expanded.

At the August meeting, the Board left the Base Rate unchanged at 0.50%, based on a judgment that it was necessary to keep an eye on the future development of COVID-19 and the effects of the expansionary monetary and fiscal policies that had been actively undertaken to deal with it, although the domestic resurgence of COVID-19 would likely delay economic recovery. Looking at the domestic economy, although the decline in exports had moderated a bit, the improvement in private consumption had weakened, the recovery in facilities investment was subdued, and the adjustment in construction investment continued. Going forward, it was forecast that the improvement in private consumption would be limited due to the domestic resurgence of COVID-19. Accordingly, GDP growth for this year was expected to fall to slightly below -1%, considerably lower than the May forecast of -0.2%. Consumer price inflation had risen to 0.3% in July, due to a larger increase in the prices of agricultural, livestock, and fishery products, and to a reduced decline in petroleum product prices. The Board expected consumer price inflation for this year to be slightly above the May forecast of 0.3%. However, the pace of increase in consumer price inflation was expected to slow, as structural factors, such as increased non-face-to-face online transactions, would put downward pressures on inflation, amid moderate economic recovery. Meanwhile, housing prices had continued to increase in all parts of the country, and the rate of household loan growth had risen. The Board thus saw the need to thoroughly examine the effects of the government's recent policy measures to stabilize the real estate market, and the consequent changes in financial stability conditions.

8 The Bank of Korea promoted stability and smooth credit flows in the financial and FX markets by actively using various policy instruments.

The Bank increased the total ceiling on the Bank Intermediated Lending Support Facility by 10 trillion won (5 trillion won each in March and May) to provide support to companies affected by COVID-19.

Programs under the Bank Intermediated Lending Support Facility

(trillion won, %)

Program	Ceiling	Interest rate
Support Program for Trade Financing	2.5	0.25
Support Program for New Growth Engine Development and Job Creation[1]	11.0	0.25
Program for Stabilization of SME Lending[2]	5.5	0.25
Support Program for Regional Enterprises	5.9	0.25
Support for SMEs Affected by COVID-19	10.0	0.25
Total	35.0[3]	-

Notes: 1) The Support Program for High-tech and Other Start-up SMEs was expanded and reorganized as the Support Program for New Growth Engine Development and Job Creation (September 2017).
2) Includes the support that had been formerly provided under the Support Program for Facilities Investment.
3) Includes reserves of 0.1 trillion won.
Source: Bank of Korea.

In addition, the Bank of Korea extended the period of a regular RP purchase facility through which an unlimited amount of liquidity is supplied, by one month to the end of July to alleviate the market shock that could arise from full redemption of RPs at maturity in July. When selecting institutions eligible for open market operations for the next one year, the Bank broadened the range of financial institutions eligible for RP transactions in consideration of the need for a swift and broad liquidity provision in response to COVID-19.

To stabilize the bond market, the Bank of Korea conducted outright purchases of Treasury bonds in July and August following those in March and April (1.5 trillion won each month). In addition, the Bank extended its Corporate Bond-Backed Lending Facility by three months to November 3, in consideration of continued uncertainties in financial and economic conditions at home and abroad. The Bank of Korea and the government completed preparations for and activated an SPV which would manage purchases of corporate bonds and commercial paper, including lower-rated ones, to stabilize the credit securities market. The SPV was set up on July 14, after the Bank of Korea, the government and a state-run financial institution (Korea Development Bank) consulted on how it would be operated and funded. The Bank of Korea held an unscheduled MPB meeting on July 17, at which members decided on the loan ceiling and conditions and carried out the first lending amounting to 1.78 trillion won.

The Bank of Korea extended the 60 billion dollar bilateral currency swap arrangement with the US Federal Reserve, originally set to expire on September 30 this year, by six months to March 31, 2021, judging that uncertainties surrounding COVID-19 still persisted, even though global dollar and domestic FX markets remained stable. However, the Bank suspended new US dollar loans using funds from the swap line after mid-May, considering stable US dollar funding conditions at home and abroad, and sequentially called in all loans implemented from March to May this year. In the meantime, as part of its efforts to secure new policy instruments for FX market stability, the Bank of Korea has been pursuing the introduction of a new foreign currency liquidity supply facility through transactions of foreign currency bond repurchase agreement carried out by competitive auctions. Under the facility, the Bank will provide US dollar funds by purchasing US Treasury bonds held by domestic financial institutions on conditions of repurchasing them, and this is expected to contribute to stability in the swap market by absorbing some structural demand for foreign funds by non-bank financial institutions during times of crisis.

⑨ The Bank of Korea activated an emergency monitoring mechanism in cases of heightened market volatility and closely monitored developments of COVID-19 and their possible impacts on the domestic and foreign financial sectors and economies, as well as changes in financial and FX market conditions after the Bank's market stabilization measures.

The Bank of Korea strengthened preemptive identification of and early warning activities related to potential risk factors within the financial system, which could be brought about by the contraction of the real economy and expanded volatility in the financial and FX markets in line with the spread of COVID-19. In the June Financial Stability Meeting, the Bank projected financial stability conditions in line with COVID-19 developments, and examined risk factors in stress situations such as the resurgence of COVID-19 and additional shocks to the real economy.

[Future Monetary Policy Directions]

⑩ The current outlook is based on the assumption that the global spread of COVID-19 will unfold differently from country to country only to subside gradually after mid-next year, and that the recent domestic resurgence will last for a period similar to the outbreak seen early this year, with local outbreaks occurring sporadically thereafter. Looking at the economic outlook based on this assumption, it is forecast that GDP will decline at a 1.3% rate in 2020 and increase by 2.8% in 2021. With fiscal policy set on an expansionary course, the slump in exports will be eased, but the recovery of private consumption will be limited due to the recent domestic resurgence of COVID-19. There is a high level of uncertainty surrounding the growth path. The upside risks to growth include an early development and supply of a vaccine and treatments for COVID-19, faster growth of the Chinese economy, and government policy to stimulate the economy. Among the downside risks are a global and domestic second wave of COVID-19, a delay in the semiconductor industry's recovery, and increasing tensions between the US and China.

Economic growth outlook[1)2)]

(%)

	2019	2020			2021e		
	Year	H1[3)]	H2e	Yeare	H1	H2	Year
GDP	2.0	-0.7	-1.8	-1.3	2.3	3.2	2.8
Private consumption	1.7	-4.4	-3.4	-3.9	4.0	3.6	3.8
Facilities investment	-7.5	5.6	0.9	2.6	4.5	7.8	6.2
Intellectual property products investment	3.0	3.3	3.0	2.9	3.0	4.0	3.5
Construction investment	-2.5	1.7	-3.1	-0.7	-2.6	1.7	-0.4
Goods exports	0.5	-2.9	-5.6	-4.5	5.4	4.2	4.8
Goods imports	-0.8	-0.9	-2.5	-1.8	6.3	5.6	5.9

Notes: 1) Year-on-year.
2) Figures are the forecast as of August 2020.
3) Reflects second quarter preliminary figures (released on September 1).
Source: Bank of Korea.

Consumer price inflation is forecast to record 0.4% this year, the same as last year. The recent rise of international oil prices and the supply disruptions for some agricultural products due to torrential rains are exerting upward pressures. However, international oil prices have remained far lower than those seen last year, and demand-side inflationary pressures have remained weak. Consumer price inflation is expected to pick up next year, albeit at a moderate pace, as economic conditions gradually improve and the impacts of (year-on-year) declines in international oil prices dissipate. Core inflation excluding food and energy prices is forecast to record 0.4% this year and 0.8% next year. Upside risks to prices include an accelerated rise in agricultural, livestock and fishery product prices due to worsening weather conditions, and stronger economic improvements due to an expansionary macroeconomic policy. Among the downside risks are an aggravated economic slowdown with a prolonged pandemic, and declines in international oil prices owing to delayed recovery of global oil demand.

Inflation outlook[1)2)]

(%)

		2019	2020			2021e		
		Year	H1	H2e	Yeare	H1	H2	Year
CPI inflation		0.4	0.6	0.3	0.4	0.7	1.3	1.0
Core inflation	CPI excluding food & energy	0.7	0.4	0.4	0.4	0.6	1.1	0.8
	CPI excluding agricultural products & oils	0.9	0.6	0.7	0.7	0.8	1.2	1.0

Notes: 1) Year-on-year.
2) Figures are the forecast as of August 2020.
Source: Bank of Korea.

11 In the future as well, the Bank of Korea will conduct its monetary policy in order to support the economy and stabilize consumer price inflation at the target level (2.0%) over a medium-term horizon, while paying attention to financial stability.

The Bank will maintain its accommodative monetary policy stance as domestic economy growth is forecast to be sluggish, influenced by the spread of COVID-19, and as demand-side inflationary pressures are expected to remain weak. In this process, it will thoroughly assess the severity of the COVID-19 resurgence and its impact on the economy and financial sector, changes in financial stability conditions, and the effects of the policy measures taken in response to the pandemic.

I

Monetary Policy Operating Conditions

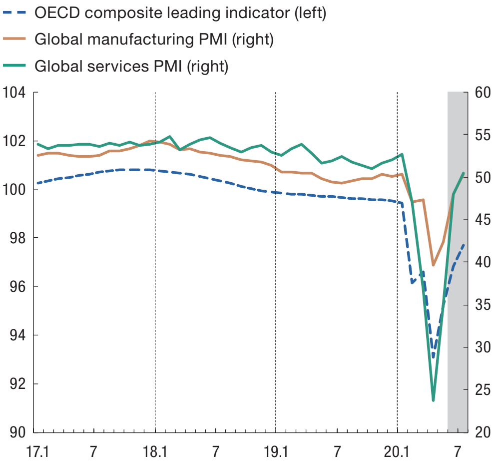
1. Global Economy

Global economic slump eases modestly

After a sharp contraction in global economic growth, the slump eased somewhat with partial economic reopening from May. The OECD composite leading indicator, showing the fluctuation of global economic activity, and global PMIs[1] began to rise in May. From June, however, uncertainties over the global economy heightened as the number of COVID-19 cases increased after economic activity was partially resumed.

In the US and the euro area, GDP declined by 9.1% and 12.1% (quarter-on-quarter), respectively, in the second quarter, each representing the largest negative growth rate since statistics were first compiled. After May, however, their consumption[2] and industrial production[3] rebounded considerably and sentiment indices improved. Japan's GDP dropped in the second quarter, the third consecutive quarter of negative growth since the fourth quarter of 2019. The Japanese economy has recently been recovering gradually, at a slower pace compared to other advanced economies.[4] In China, the growth rate reversed to positive in the second quarter as a result of a rapid normalization of production and increased investment in infrastructure and housing construction. The momentum of recovery continued in July, with exports growing at a higher pace.[5] The ASEAN-5 countries saw their export slump ease slightly, but some countries where COVID-19 continued to spread were still experiencing a delay in consumption recovery. In India and Brazil, consumption continued to be sluggish due to the ongoing spread of COVID-19.

Figure I-1. Composite leading indicator[1] and global PMIs



Note: 1) The composite leading indicator includes OECD member countries and six emerging countries (China, Brazil, India, Russia, Indonesia, and South Africa).
Sources: OECD, Bloomberg.

1) Global manufacturing and services PMIs in July stood at 50.3 and 50.5, respectively, exceeding the benchmark (50).
2) Retail sales in the US grew at 18.3% in May, 8.4% in June, and 1.2% in July (month-on-month), while those in the euro area grew at 20.3% in May and 5.7% in June.
3) Industrial production in the US grew at 0.9% in May, 5.7% in June, and 3.0% in July (month-on-month), while that in the euro area recorded growth of 12.3% in May and 9.1% in June.
4) Japan's industrial production rose 1.9% in June month-on-month, after continuing to decline up until May.
5) China's exports increased by 0.5% in June year-on-year, and by 7.2% in July.

Table I-1. Economic growth in major economies[1)2)]

(%)

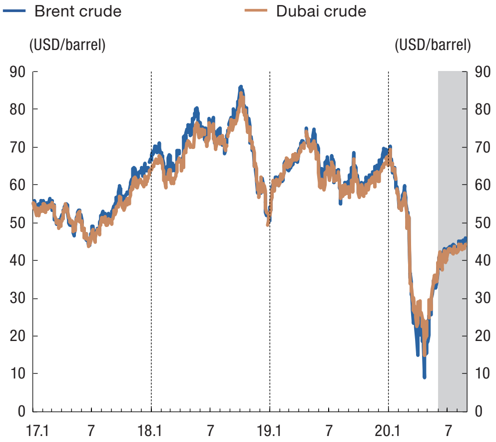
	2017	2018	2019				2020	
	Year	Year	Year	Q2	Q3	Q4	Q1	Q2
World	3.8	3.6	2.9	-	-	-	-	-
Advanced economies	2.5	2.2	1.7	-	-	-	-	-
US	2.3	3.0	2.2	-0.4	0.6	0.6	-1.3	-9.1
Euro area	2.6	1.9	1.3	0.2	0.3	0.0	-3.6	-12.1
Japan	2.2	0.3	0.7	0.4	0.0	-1.8	-0.6	-7.8
Emerging market and developing economies	4.8	4.5	3.7	-	-	-	-	-
China	6.9	6.7	6.1	6.2	6.0	6.0	-6.8	3.2
India[3)]	7.0	6.1	4.2	5.2	4.4	4.1	3.1	-
ASEAN-5[4)]	5.3	5.3	4.9	4.8	5.0	4.7	1.5	-8.7
Brazil	1.3	1.3	1.1	1.1	1.2	1.7	-0.3	-
Russia	1.8	2.5	1.3	1.1	1.5	2.1	1.6	-8.5

Notes: 1) Based on IMF statistics, except in the cases of individual countries, the euro area and ASEAN-5 which are based on their own published statistics.
2) The quarterly rates of growth are quarter-on-quarter (seasonally adjusted) for advanced economies, and year-on-year for the others.
3) The annual growth rates are based on the fiscal year (April of the current year to March of the next year).
4) Indonesia, Thailand, Malaysia, the Philippines, and Vietnam.
Sources: IMF, individual countries' published statistics.

International oil prices move sideways after rebounding

International oil prices (Dubai crude) fell sharply to the range of 10 dollars per barrel in late April, but fluctuated in the lower- and mid-40 dollar range in late August, after rebounding rapidly in May. The recent recovery of global oil prices was mainly due to the gradual recovery in oil demand in line with the economic reopenings in major economies and to the reduced concerns about a mismatch in oil supply and demand following smooth implementation[6)] of production cuts agreed by oil-producing countries.

Figure I-2. International oil prices



Sources: Bloomberg, Reuters.

International financial market generally stable

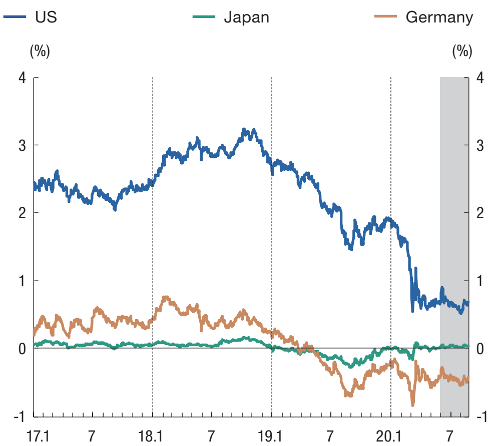
In the international financial markets, interest rates and stock prices showed greater volatility temporarily in June, due to concerns about a resurgence in COVID-19 in major economies and the continued conflict between the United States and China. The markets showed generally stable movements afterwards[7)] on continuing hopes for economic recovery, stemming from the continued accommodative monetary policy by the US Federal Reserve and stronger-than-expected economic indices and corporate earnings.

6) On April 12, OPEC+ (13 OPEC members and 10 non-OPEC countries) agreed to cut production by a maximum of 9.7 million barrels a day for the next two years starting in May 2020. They maintained very high implementation rates at 107% and 97% of the agreed cuts respectively in June and July.

7) The TED spread (the difference between the three-month LIBOR based in US dollars and the three-month US Treasury bill) and the credit spread for US corporate bonds (the difference in yield between speculation-grade corporate bonds and 10-year US Treasury bonds) continued on a downward stabilizing trend (TED spread (average, basis points): 101.1 in April → 29.8 in May → 16.6 in June → 15.1 in July → 16.2 in August; credit spread for US corporate bonds (average, percentage points): 7.9 in April → 7.0 in May → 5.8 in June → 5.5 in July → 4.8 in August).

The US Treasury bond yield rose in early June, driven by improvement in labor market indicators, but later fell to a record-low level,[8] affected by continued expectations of monetary accommodation in addition to concerns about a resurgence of COVID-19 in the United States. It then rose again, recovering some of the earlier drop, thanks to the stronger-than-expected economic indicators.[9] Government bond yields in Japan and Germany showed similar fluctuations to that in the United States.

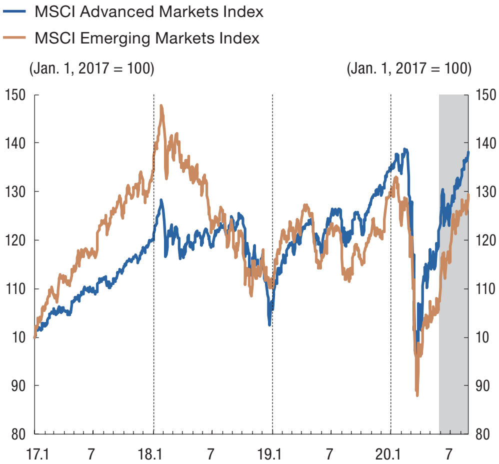
Figure I-3. Long-term market interest rates[1] in major economies



Note: 1) Treasury bond (10-year) yields.
Source: Bloomberg.

Stock prices in advanced economies rose on continued expectations of economic recovery, but the rally slowed temporarily after mid-June due to concerns about a resurgence of COVID-19 in the United States and the US-China trade conflict. The bull markets resumed in July, driven by expectations of advances in the development of COVID-19 vaccines and by the announcement of stronger-than-expected corporate performances.[10] Stock prices in emerging market economies also showed similar upward patterns.

Figure I-4. Share price indices of advanced and emerging markets



Source: Bloomberg.

Stock price volatility continued to decline due to the easing of risk aversion, and interest rate volatility shrank rapidly, remaining below the pre-pandemic level.

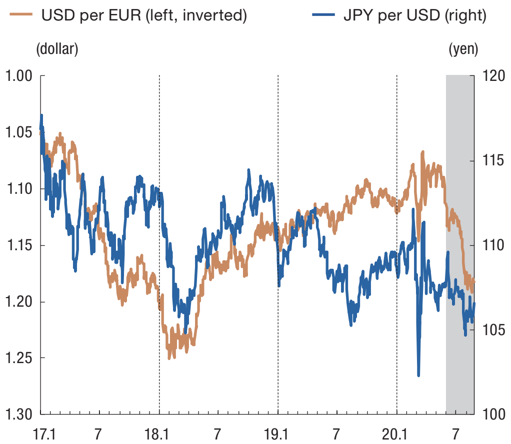
8) The 10-year US Treasury bond yield recorded a historic low (closing price basis) of 0.51% on August 4, 2020.
9) US nonfarm payrolls: 4.8 million added in June → 1.8 million added in July (market expectations: 1.5 million).
CPI (year-on-year): +0.6% in June → +1.0% in July (market expectations: 0.7%).
10) About 83% of the S&P500 companies which announced second-quarter net incomes posted higher incomes than market expectations.

Figure I-5. Volatility Index (VIX) and Merrill Lynch Option Volatility Estimate (MOVE) Index[1)]

Note: 1) Volatility indices for US equity and Treasury bond prices.
Source: Bloomberg.

The US dollar weakened against the euro and the yen on expectations of continued accommodative monetary policy by the US Federal Reserve. It weakened significantly against the euro in particular, affected by the agreement on the EU economic recovery fund,[11)] and by reduced risk aversion.

Figure I-6. Major exchange rates[1)]



Note: 1) Based on the New York market rate at 16:30.
Source: Reuters.

11) EU leaders decided to set up a recovery fund worth 750 billion euros (390 billion euros in subsidies and 360 billion euros in loans) in response to COVID-19 (July 21).

2. Real Economy

Domestic growth contracts sharply

Korea's economic growth contracted significantly, as the consumption recovery remained weak even after a rebound, with exports falling steeply and the recovery of investment remaining subdued, affected by the COVID-19 pandemic. In the second quarter, real GDP declined by 3.2% quarter-on-quarter (-2.7% year-on-year).

Private consumption turned to an increase in the second quarter, rising by 1.5% quarter-on-quarter, driven by government support measures and the slowing spread of COVID-19. Services consumption recorded a decrease due to social distancing measures, while goods consumption increased sharply mainly in durable goods including automobiles and home appliances, driven by government measures.[12] This momentum of improvement, however, weakened after July, affected by heavy rains and the resurgence of COVID-19. Government consumption continued to grow in the second quarter, up 1.1% quarter-on-quarter. Government expenditures related to personnel and material expenses rose[13] due to the increased fiscal spending in response to COVID-19, despite a drop in health insurance payouts.[14] Facilities investment showed a slow recovery, declining by 0.5% quarter-on-quarter in the second quarter as a rise in machinery investment driven by increased purchases of semiconductor manufacturing equipment was offset by a fall in transportation equipment investment. Construction investment dropped 1.5% quarter-on-quarter in the second quarter as building construction remained weak, despite the increase in civil engineering in line with the increased government budget implementation.

Table I-2. Major economic growth indicators[1)]

(%)

	2017	2018	2019	2019	2019	2019	2020	2020
	Year	Year	Year	Q2	Q3	Q4	Q1	Q2
Real GDP	3.2	2.9	2.0	1.0 (2.1)	0.4 (2.0)	1.3 (2.3)	-1.3 (1.4)	-3.2 (-2.7)
(Private consumption)	2.8	3.2	1.7	0.7 (1.8)	0.4 (1.6)	0.7 (1.9)	-6.5 (-4.8)	1.5 (-4.0)
(Government consumption)	3.9	5.3	6.6	1.7 (7.2)	1.7 (6.9)	1.8 (6.5)	1.4 (6.8)	1.1 (6.1)
(Facilities investment)	16.5	-2.3	-7.5	2.6 (-7.0)	1.7 (-2.3)	2.6 (-2.0)	0.2 (7.3)	-0.5 (4.1)
(Construction investment)	7.3	-4.6	-2.5	2.9 (-3.0)	-6.4 (-2.7)	8.0 (2.6)	0.5 (4.2)	-1.5 (-0.1)
(Goods exports)	4.4	3.3	0.5	1.1 (-0.5)	5.2 (-0.1)	1.0 (3.4)	-1.0 (6.3)	-15.9 (-11.5)
(Goods imports)	8.8	2.0	-0.8	3.1 (-0.6)	1.6 (2.2)	0.7 (1.3)	-2.3 (3.1)	-4.8 (-4.8)

Note: 1) Quarter-on-quarter (seasonally adjusted); figures in parentheses are non-seasonally adjusted year-on-year rates.
Source: Bank of Korea.

Labor market conditions remain weak

In the labor market, the number of persons employed continued to decline steeply. The decline continued mainly in services requiring face-to-face interactions (e.g. food & accommodation, wholesale & retail, and

12) In order to relieve the consumption slump caused by COVID-19, the government cut the consumption tax on passenger car purchases until the end of this year (from 5% to 1.5% between March and June and to 3.5% between July and December), and implemented a 10% refund for purchases of home appliances with high energy efficiency ratios.
13) The central government's personnel and material expenses rose 10.3% year-on-year during the second quarter.
14) Health insurance payouts declined 4.4% in the second quarter, due to reduced hospital visits.

educational services), due to social distancing measures implemented since March to prevent the spread of the virus. The decrease in the number of persons employed accelerated to 476,000 year-on-year in April, but slowed slightly since May (to 277,000 in July) as the spread of the virus slowed. The seasonally adjusted unemployment rate rose sharply to 4.2% in the second quarter and in July, from 3.7% in the first quarter.

Table I-3. Major employment-related indicators

(ten thousand persons, %)

	2018	2019				2020		
	Year	Year	Q2	Q3	Q4	Q1	Q2	Jul.
Economically active population (Rate of change)[1]	0.5	1.0	1.1	0.9	1.3	0.8	-1.3	-0.8
Number of employed persons (Changes)[1]	9.7	30.1	23.7	36.6	42.2	28.8	-40.7	-27.7
Labor force participation rate[2]	63.1	63.3	63.3	63.2	63.5	63.4	62.1	62.5
Employment-to-population ratio[2]	60.7	60.9	60.8	60.9	61.2	61.1	59.5	59.8
Unemployment rate[2]	3.8	3.8	4.0	3.5	3.6	3.7	4.2	4.2

Notes: 1) Year-on-year.
2) Seasonally adjusted.
Source: Statistics Korea.

Current account surplus widens after narrowing

The current account surplus narrowed year-on-year in the second quarter. Despite the improvement in services,[15] primary income and secondary income, the current account surplus narrowed due to a large decrease in the goods account surplus resulting from reduced exports amid the COVID-19 pandemic. In July, however, the surplus widened[16] as in June, as the goods account surplus expanded and the services account deficit narrowed year-on-year.

Exports (customs clearance basis, year-on-year) declined at a faster pace[17] in the second quarter, led mainly by sluggish exports in non-IT sectors (automobiles, petroleum, etc.) induced by work stoppages, weak global demand, and oil prices that were considerably lower than the year before. The fall decelerated[18] slightly in July, however, on the back of reopenings in major economies and an increase in semiconductor exports.

Imports (customs clearance basis, year-on-year) dropped at a higher rate. Imports of commodities and consumer goods declined, driven respectively by crude oil and home appliances & clothing. Capital goods imports

15) The services account deficit narrowed as payments decreased more than income receipts for travel and transportation, which also dropped due to overseas travel and shipping constraints from COVID-19.

16) The current account surplus, which stood at 2.3 billion dollars in May 2020, narrowed compared to the 5.2 billion dollars seen during the same month of 2019, but widened year-on-year in June and July, recording 6.9 billion and 7.5 billion dollars, respectively (5.7 billion in June 2019 and 6.6 billion dollars in July 2019).

17) The growth rate of exports (customs clearance basis, year-on-year) recorded -11.3% in the first half, with -1.8% in the first quarter and -20.3% in the second quarter 2020. The gap with GDP's goods exports statistics in real terms (-2.9% in the first half of 2020, year-on-year) is attributable to the difference between the real and nominal terms.

18) Growth rate of exports (year-on-year): -10.8% (-18.4%, daily average) in June → -7.1% (-7.1%) in July → -9.9% (-3.8%) in August

19) Growth rate of imports (year-on-year): -11.2% (-18.8%, daily average) in June → -11.6% (-11.6%) in July → -16.3% (-10.6%) in August

shifted to a decrease led by semiconductor equipment. Imports continued to decline in July and onward.[19)]

Table I-4. Current account

(billion dollars, %)

	2018	2019				2020		
	Year	Year	Q2	Q3	Q4	Q1	Q2	Jul.
Current account	77.5	60.0	10.4	19.2	18.1	13.3	5.8	7.5
Goods	110.1	76.9	17.4	19.5	20.4	15.0	9.0	7.0
Exports[1)]	604.9	542.2	138.5	134.7	136.4	130.2	110.4	42.8
(Rate of change)[2)]	5.4	-10.4	-8.7	-12.3	-11.8	-1.8	-20.3	-7.1
Imports[1)]	535.2	503.3	128.8	125.0	125.8	121.9	108.0	38.7
(Rate of change)[2)]	11.9	-6.0	-3.3	-4.1	-9.7	-1.6	-16.1	-11.6
Services	-29.4	-23.0	-4.4	-5.4	-6.1	-5.2	-3.2	-1.1
Credit	103.7	107.6	27.7	27.0	27.3	23.9	19.9	6.9
Debit	133.0	130.7	32.0	32.3	33.4	29.1	23.1	8.0
Primary income	4.9	12.2	-0.8	6.0	5.5	3.9	0.0	2.0
Secondary income	-8.2	-6.1	-1.8	-1.0	-1.7	-0.3	0.0	-0.4

Notes: 1) Customs-clearance basis. Customs clearance statistics are aggregated based on the customs line, whereas current account (goods) statistics are compiled based on the transfer of economic ownership. Therefore, differences between the two statistics may occur in processing trade or intermediary trade.
2) Year-on-year.

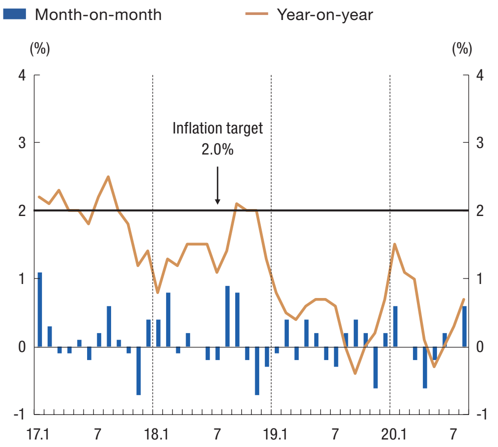
Sources: Bank of Korea, Korea Customs Service.

3. Prices

Consumer price inflation at mid-0% level

Consumer price inflation slowed rapidly after the spread of COVID-19, fluctuating at around 0% in the second quarter and then running in the mid-0% range in July and August. A recent rise in international oil prices, and limited supply of vegetables and fruits resulting from heavy rains, worked as factors pushing inflation up, despite the continuation of low demand-side inflationary pressures and downward pressures from government policies such as expanded free education.

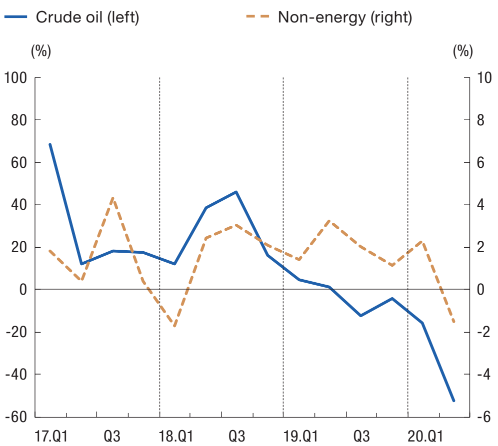
Figure I-7. CPI inflation



Sources: Bank of Korea, Statistics Korea.

With regard to the overseas factors affecting prices, the decelerated drop in crude oil import prices[20] reflecting the recent rise in international oil prices[21] lessened downward inflationary pressures to some extent. Prices of non-energy imports, which affect domestic industrial product prices indirectly, shifted to negative growth,[22] led by a decline in import prices of some products,[23] and a slower rise in the Korean won/US dollar exchange rate.[24]

Figure I-8. Import prices (Korean-won basis)[1)]



Note: 1) Year-on-year.
Source: Bank of Korea.

As for domestic factors influencing prices, inflationary pressures weakened on the demand side compared to last year, affected by the decline in private consumption. On the cost side, the rate of wage growth slowed substantially

20) The rate of decline in crude oil import prices (Korean won basis, year-on-year) accelerated from 15.7% in the first quarter of this year to 52.6% in the second quarter, and slowed to 30.2% in July.

21) The rate of decline in international oil prices (Dubai crude oil basis, year-on-year) accelerated from 20.4% in the first quarter of this year to 52.7% in the second quarter, and slowed to 29.3% in July and August.

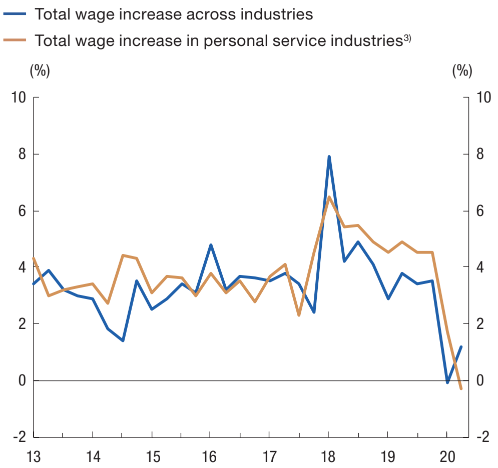
22) The rate of increase in non-energy import prices (Korean won basis, year-on-year) reversed to a negative from 2.3% in the first quarter to -1.5% in the second quarter, and further to -2.0% in July.

23) The rate of increase in chemical product import prices (Korean won basis, year-on-year) turned to negative from 2.4% in the first quarter to -3.7% in the second quarter, and fell further to -6.4% in July. The increase rate of basic metal import prices reversed to negative from 0.6% in the first quarter to -4.0% in the second quarter. The decline continued in July, although at a slower pace of -2.7%.

24) The extent of increase in the Korean won/US dollar exchange rate (year-on-year) fell from 6.1% in the first quarter of this year to 4.6% in the second quarter and to 0.0% in July and August.

from last year due to the economic downturn resulting from the prolonged COVID-19 pandemic.

Figure I-9. Rate of wage increase (per employee)[1)2)]



Notes: 1) Based on the firms with one or more permanent employees.
2) Year-on-year
3) Simple average of the wage increase in the industries related to personal services such as the accommodation and food service industries.
Source: Ministry of Employment and Labor.

A look at other factors affecting inflation finds that the prices of agricultural, livestock & fishery products contributed to a rise in consumer price inflation, while the strengthening of government social-welfare policies related to education worked as a factor pushing inflation down. The rate of increase in the prices of agricultural, livestock & fishery products picked up, owing to a high rise in livestock product prices and a hike in agricultural product prices following poor weather conditions during July and August. In terms of government policy, the reduced cut in the consumption tax on passenger cars[25)] pushed up inflation, but the early implementation of free high school education[26)] and the cut in gas fees[27)] were factors driving inflation down. Housing rental fees reversed to an increase after the second quarter, affected by the recent rises in leasehold *(jeonse)* deposits and monthly rents (new contract basis).[28)]

Looking at the second-quarter changes in CPI inflation in the individual product categories, prices of agricultural, livestock & fishery products increased at a higher rate, while the rate of price increase in petroleum products recorded a large negative figure. As for services, the decline in public service charges accelerated, while private service charges increased at a slower pace. In July and August, agricultural product prices rose at a steep rate due to heavy rainfalls, and the drop in petroleum product prices decelerated reflecting the rise in international oil prices.

25) The government extended the cut in the consumption tax (5%) for passenger car purchases until December this year, but reduced the cut from 3.5 percentage points (5% → 1.5%) between March and June to 1.5 percentage points (5% → 3.5%) between July and December.
26) Free high school education, scheduled to be introduced for first-year high school students in March 2021, was implemented earlier than scheduled, during this year, in some areas (Gangwon, Gyeongbuk, etc.).
27) The government cut gas fees (residential, wholesale price) by 11.2% from July, reflecting the drop in international oil prices since the COVID-19 outbreak.
28) The rate of increase in leasehold *(jeonse)* deposits and monthly rents (Korea Appraisal Board, relative to the last month of the preceding year) recorded -1.1% in 2019 and 1.4% from January to August this year.

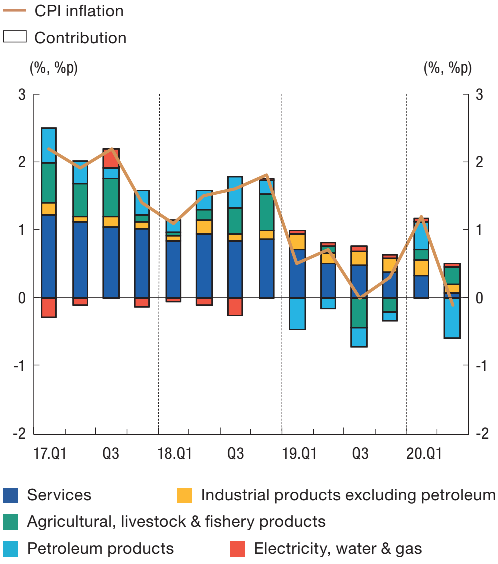
Table I-5. CPI inflation[1)]

(%)

	2018	2019				2020			
	Year	Year	Q2	Q3	Q4	Q1	Q2	Jul.	Aug.
Consumer price index	1.5	0.4	0.7	0.0	0.3	1.2	-0.1	0.3	0.7
Agricultural, livestock & fishery products	3.7	-1.7	1.2	-5.4	-2.5	2.0	3.2	6.4	10.6
(Agricultural products)	8.1	-3.0	1.6	-8.7	-5.8	-0.5	-0.3	4.9	12.1
(Livestock products)	-3.5	0.0	1.7	-2.0	1.8	4.2	7.1	9.5	10.2
Industrial products	1.3	-0.2	0.0	-0.2	0.2	2.0	-1.4	-0.4	-0.4
(Petroleum products)	6.8	-5.7	-3.5	-6.0	-3.1	10.5	-13.7	-10.2	-10.0
(Industrial products excluding petroleum)	0.5	0.7	0.6	0.8	0.7	0.8	0.5	1.0	1.0
Electricity, water & gas	-2.9	1.5	1.3	1.9	1.5	1.5	1.3	-4.5	-4.4
Services	1.6	0.9	0.9	0.9	0.7	0.6	0.1	0.2	0.3
(Rentals for housing)	0.6	-0.1	-0.1	-0.2	-0.2	-0.1	0.1	0.2	0.3
(Public service charges)	0.2	-0.5	-0.2	-0.4	-1.0	-0.6	-1.8	-1.9	-1.8
(Private service charges)	2.5	1.9	1.7	1.7	1.6	1.3	1.0	1.1	1.1
CPI for living necessities	1.6	0.2	0.7	-0.3	0.3	1.9	-0.2	0.0	0.5
CPI excluding food & energy	1.2	0.7	0.6	0.7	0.6	0.6	0.1	0.4	0.4
CPI excluding agricultural products & oils	1.2	0.9	0.9	0.8	0.7	0.8	0.5	0.7	0.8

Note: 1) Year-on-year.
Sources: Statistics Korea.

Figure I-10. Contributions to CPI inflation[1)]



Note: 1) Year-on-year.
Sources: Bank of Korea, Statistics Korea.

Underlying inflation remains low

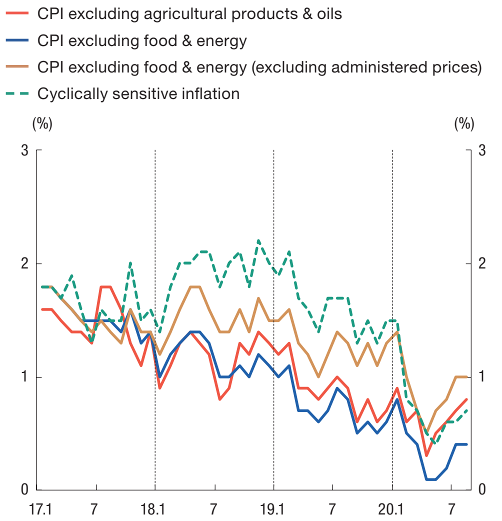
Core inflation excluding food and energy prices recently rose slightly, recording the mid-0% level, but still remains low. A look at core inflation excluding administered prices,[29)] given that it has been greatly influenced by the government's education- and medical-related social-welfare policies,[30)] shows that it has been up slightly to around 1%. Meanwhile, cyclically sensitive inflation[31)] was low in the mid- and upper-0% range.

29) The core inflation index (excluding food and energy prices) with administered prices excluded is calculated by excluding the prices of public services, electricity, water, gas and school meals, which are greatly affected directly and indirectly by the government.

30) The government’s recent social-welfare policy stance including expanded free school education and increased coverage in health insurance has exerted downward pressures on inflation.

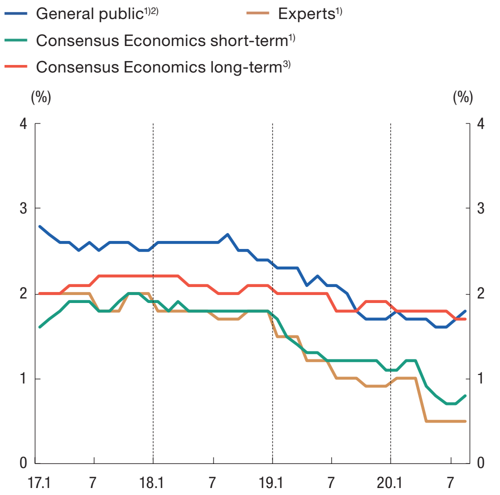
31) Cyclically sensitive inflation was calculated based on the items from among the group of products comprising the core inflation index (excluding food and energy prices) that react sensitively to the percentage GDP gap.

Figure I-11. Underlying inflation rates[1]



Note: 1) Year-on-year.
Sources: Bank of Korea, Statistics Korea.

Figure I-12. Inflation expectations



Notes: 1) Expected CPI inflation rates for the next 12 months.
2) Based on new samples since September 2018.
3) Expected CPI inflation rates after 5 years.
Sources: Bank of Korea, Consensus Economics.

The short-term (one-year) inflation expectations of a group of experts[32)] recently stood at the mid- and upper-0% levels, while the short-term expectations of the general public and the long-term expectations of experts fluctuated at around the mid- and upper-1% levels.

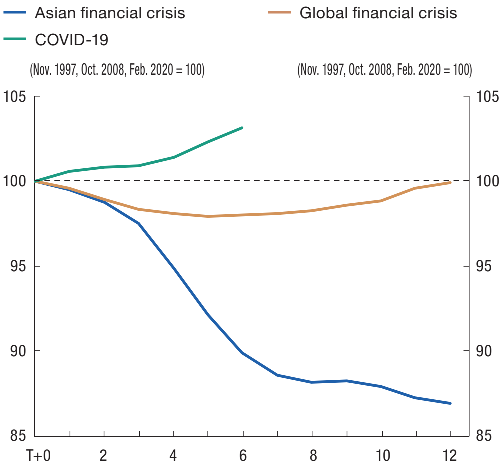
Housing sales prices continue to rise

Nationwide housing sales prices rose at a slower pace in April, affected by sluggish economic activity and the government's housing market stabilization measures. The pace of increase picked up[33)] mainly in Seoul and its surrounding areas from June, driven by concerns regarding housing supply and demand and heightened expectations of higher housing prices under the accommodative financial conditions. Entering August, however, the increase in housing sales prices decelerated owing to the government measures to stabilize the housing market.[34)] Housing prices have continued on a high uptrend recently, even amid the severe contraction of economic

32) These figures are the results of surveys of domestic and foreign investment banks, securities companies, and market research institutions conducted by Consensus Economics, Inc.
33) Nationwide housing sales prices rose by 0.3% in April, 0.1% in May, and 0.4% in June.
34) In response to the house price increase from June, the government announced measures to curb demand (on June 17 and July 10) and increase supply (on August 4).

activity, which is unlike the price movements seen during past crises.

Figure I-13. House prices during past crises



Source: Kookmin Bank.

Nationwide leasehold *(jeonse)* deposit prices rose at a faster pace since June, both in Seoul and its surrounding areas and in the rest of the country.[35]

Table I-6. Rates of increase in housing sales and leasehold *(jeonse)* deposit prices[1)]

(%)

	2018	2019			2020			
	Year	Year	Q3	Q4	Q1	Q2	Jul.	Aug.
Housing sales prices	1.1	-0.4	-0.1	0.7	1.2	0.8	0.6	0.5
Seoul and its surrounding areas	3.3	0.5	0.2	1.3	1.8	1.3	0.8	0.5
(Seoul)	6.2	1.2	0.4	1.8	0.6	0.0	0.7	0.4
Other areas	-0.9	-1.1	-0.4	0.2	0.5	0.4	0.4	0.4
Sales prices of apartments for reconstruction	17.4	11.5	3.7	6.4	1.3	0.8	0.9	0.5
Leasehold (*jeonse*) deposit prices	-1.8	-1.3	-0.3	0.4	0.7	0.5	0.3	0.4
Seoul and its surrounding areas	-1.5	-0.8	0.0	0.9	1.0	0.7	0.4	0.5
(Seoul)	0.3	-0.4	0.2	0.9	0.7	0.3	0.3	0.4
Other areas	-2.1	-1.7	-0.6	0.0	0.4	0.3	0.2	0.3

Note: 1) Compared with the last survey dates of the previous period.
Sources: Korea Appraisal Board, Real Estate 114.

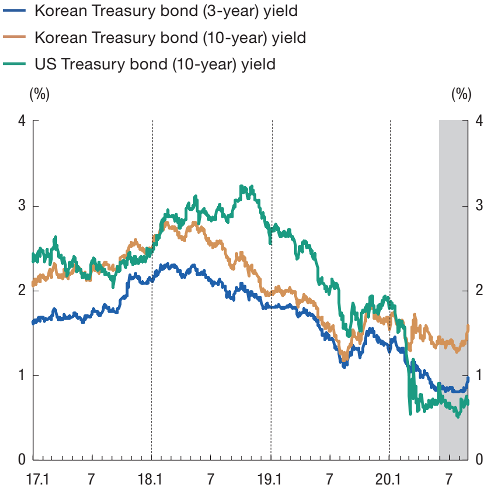
35) Nationwide leasehold *(jeonse)* deposit prices rose by 0.1% in April, 0.1% in May, and 0.3% in June.

4. Financial and Foreign Exchange Markets

Long-term market interest rates rise after fluctuating within a narrow range

The Korean Treasury bond yield (3-year) generally fluctuated at around the lower- to mid-0.8% range since June, and then rose slightly in late August. In early June, it rose moderately, affected by the improvement in economic indicators in major economies and concerns about an excess Treasury bond supply following the supplementary budget compilation. It then fell back in mid-June due to the resurgence of COVID-19 and concerns about a delay in economic activity in major countries. After mid-July, the yield generally moved sideways[36)] at around the lower-0.8% level, affected by the developments of COVID-19 and the US-China trade dispute, announcements of economic indicators, and policy responses at home and abroad. In late August, however, it climbed to the 0.9% range, driven by the rise in the US Treasury bond yield[37)] and massive net sales of Treasury bond futures by foreigners.

Figure I-14. Korean and US Treasury bond yields



Sources: KOFIA, Bloomberg.

Short-term market interest rates drop

Short-term interest rates declined on the back of market stabilization measures taken by the Bank of Korea and the government. The Monetary Stabilization Bond (MSB, 91-day) rate remained below the Base Rate, recording a record-low level (0.46% on July 31), affected by strong investment demand from MMFs and an increase in foreigners' purchases. CD rates (91-day) fell as banks' CD issuance[38)] declined from last year's volume, while the demand for CD purchases rose as a result of a regulation[39)] requiring RP sellers (securities firms, asset management firms, etc.) to hold cash assets.

36) The Treasury bond (3-year) yield volatility measured with an exponentially weighted moving average (EWMA) continued to decline from 2.73% at end-May to 2.18% at end-June and to 1.51% at end-July.

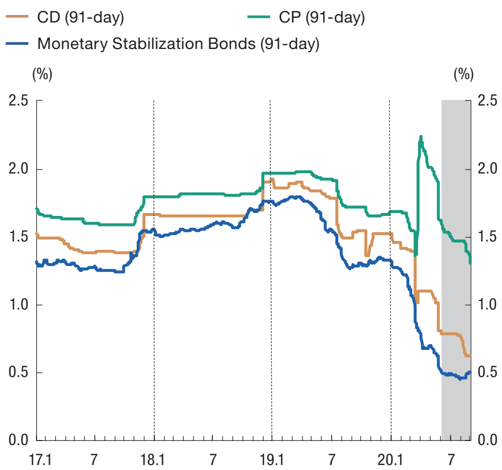
37) The US Treasury bond (10-year) yield rose 22 basis points between August 1 and 27.

38) In response to the new loan-to-deposit ratio requirement (implemented in January 2020), banks increased CD issuance significantly in 2019, but reduced issuance this year (from 6.9 trillion won between June and August 2019 to 6.2 trillion won between June 1 and August 25, 2020), as they met the required ratio (up to 100%), and the new regulation was relaxed temporarily (for any violations of the new loan-to-deposit ratio up to 5 percentage points, penalties are waived, until the end of June 2021). However, CD issuance increased year-on-year in August due to refinancing demand (2.5 trillion won in August 2019 to 3.0 trillion won between August 1 and 25, 2020).

39) The new regulation required RP sellers to hold certain proportions of their RP sales in cash assets (cash, time or installment deposits, CDs, etc.) from July 2020. The ratios of cash assets required were raised to 1% in July and to 10% in August for overnight RPs, to 5% for 2- or 3-day RPs, and to 3% for 4- to 6-day RPs.

CP rates (91-day, A1 rate), which soared in March, declined in line with the easing of risk aversion. This caused the spread between CP and CD rates to narrow.

Figure I-15. Short-term interest rates

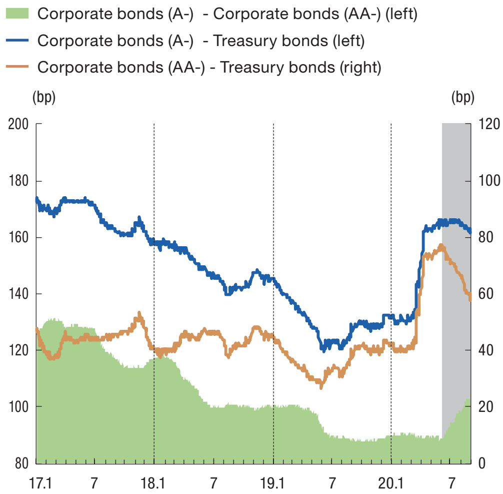


Source: KOFIA.

Prime corporate bond credit spread narrows

Since June, the corporate bond credit spread showed differing movements between prime and subprime bonds. The credit spread for prime bonds (AA-) narrowed from 76 basis points on May 29 to 60 basis points on September 2, with risk aversion reduced thanks to the market stabilization measures taken by the Bank of Korea and the government. In contrast, the credit spread for subprime bonds (A-) remained high (164 basis points on May 29 and 163 basis points on September 2), driven by firms' relatively weak financials and concerns about worsening profitability.

Figure I-16. Corporate bond credit spreads[1]

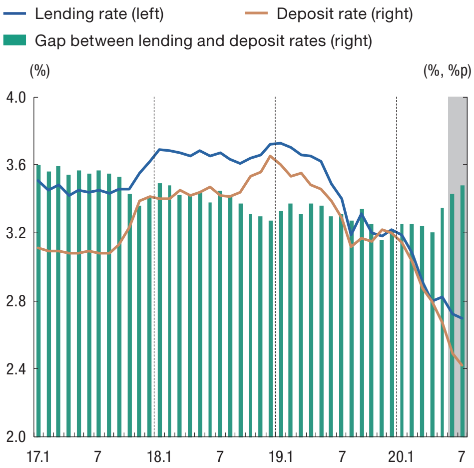


Note: 1) 3-year maturity basis; Treasury bond yields based on final quoted yields, and corporate bond yields on average yields estimated by four private credit rating agencies.
Source: KOFIA.

Bank lending and deposit rates decline

Banks' interest rates on loans and deposits (new business) continued to fall during June and July, reaching the lowest levels since the beginning of statistics compilation (January 1996). Lending rates declined in reflection of market indicator movements. The fall was limited, however, as low-rate loans to businesses affected by COVID-19 declined in volume. Deposit rates dropped more sharply than lending rates, driven by the decrease in market rates on top of a reduced need for banks to attract deposits following the temporary easing of the requirement for banks to manage their loan-to-deposit ratios (from April 2020 to June 2021).

Figure I-17. Bank lending/deposit rates and spread

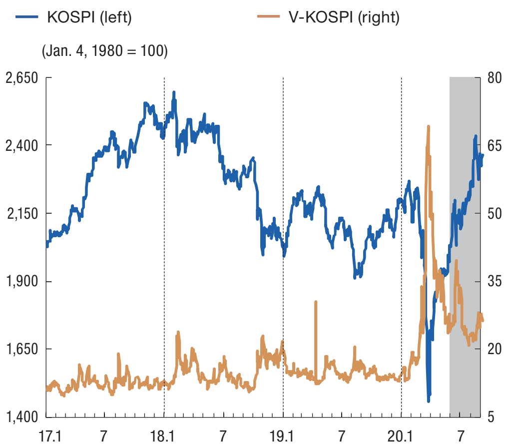


Source: Bank of Korea.

Stock prices continue to rise

Stock prices (KOSPI) rose in June in line with the improvement in economic indicators in major countries, despite the US-China trade dispute. They then fell slightly after mid-June, reflecting the resurgence of COVID-19 in major economies and concerns about a delay in their economic reopening. In July, stock prices resumed their climb, led mainly by better-than-expected sales by technology companies at home and abroad, and by expectations of additional stimulus packages in major economies, but the rally slowed moderately since mid-August with heightened concerns about the domestic COVID-19 resurgence. The stock price volatility index (V-KOSPI) climbed in June with investor sentiment deteriorating at home and abroad amid concerns about a COVID-19 resurgence. It fell significantly in July on expectations of vaccine development, but rose back in mid-August as the number of daily new confirmed domestic COVID-19 cases increased rapidly.

Figure I-18. KOSPI and stock volatility index



Source: Koscom.

Foreign investors continue domestic bond investment and reduce stock investment at a slower pace

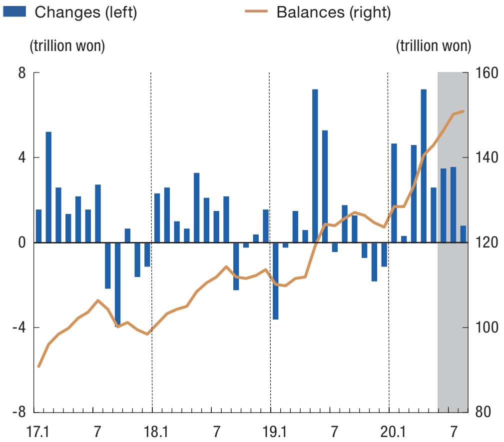
Foreigners' domestic securities investment increased in volume, with their bond investment continuing to grow and their net selling of stocks slowing.

Bond investment continued to grow, mainly in Treasury bonds and MSBs,[40)] as the interest rate remained high relative to the sovereign rating and the strong arbitrage incentive continued.[41)] Foreigners' outstanding bond holdings posted a record-high month-end volume of 151.0 trillion won on August 31.

40) As of end-July 2020, 79.3% of foreigners' outstanding bond holdings is taken up by Treasury bonds, 18.4% by MSBs and 2.3% by other bonds.

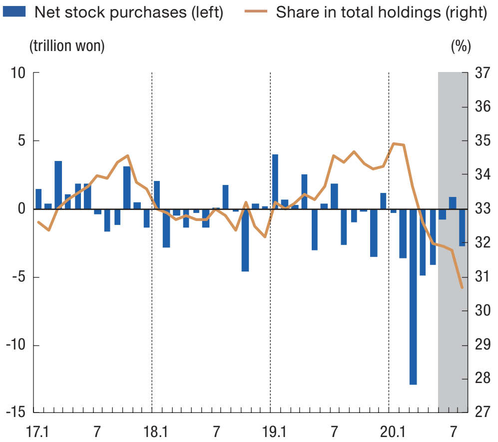
41) The difference between the interest rate differential and the swap rate (3-month, average during the period) remained at high levels at 33 basis points in 2019, 57 basis points in May, 50 basis points in June, 49 basis points in July, and 40 basis points in August 2020.

Figure I-19. Changes in and balances of foreigners' bond holdings



Source: Financial Supervisory Service.

Figure I-20. Foreigners' net stock purchases[1] and share in total holdings[2]



Notes: 1) Sum of net purchases in KOSPI and KOSDAQ markets.
2) Based on total stock market capitalizations.
Source: Koscom.

Concerning stock investment, selling by foreign investors slowed significantly entering June, after which it recorded net purchases in July mainly in the electrical & electronics sector, driven by aggressive policy responses, improvement in economic indicators in major economies, and expectations of a recovery in the semiconductor industry. In August, however, it shifted to net selling, as investor sentiment deteriorated owing to uncertainties regarding an agreement on additional fiscal stimulus in the United States and rising concerns about the COVID-19 resurgence in Korea.

Corporate lending grows faster

Banks' lending to enterprises increased sharply in the second quarter, as the COVID-19-related corporate demand for working capital and financial support from the government and banks continued. Lending to small and medium-sized enterprises (SMEs) rose greatly, driven by financial support such as ultra-low-rate lending for small businesses. Lending to large enterprises also continued to grow, but at a slower rate than in the quarter before, due to improved conditions for financing through corporate bonds. Non-bank lending to corporations also maintained a high rate of growth.

Direct funding by corporations improved mainly in the corporate bond market, on the back of market stabilization measures by the government and the Bank of Korea. Corporate bonds recorded a much larger net issuance than in the previous quarter, as conditions for issuance improved mainly in prime bonds due to the operation of the Bond Market Stabilization Fund (April 1) in response to COVID-19. Market conditions for subprime bonds also improved, with the volume of issuance increasing, but to a relatively lesser extent[42] due to concerns about weak financial state of the subprime companies.

Table I-7. Corporate funding[1]

(trillion won, %)

		2018	2019				2020		
		Year	Year	Q2	Q3	Q4	Q1	Q2	Jul.[2]
Loans	Total	91.2	98.6	27.7	21.9	27.2	49.0	66.4	··
	(Rate of change)[3]	(8.7)	(8.7)	(8.6)	(7.9)	(8.7)	(10.8)	(23.7)	··
	Banks	46.7	47.7	14.6	9.2	11.2	34.3	44.5	8.4
	(Large firms)	6.9	-1.8	0.5	-3.4	0.9	15.6	10.7	1.9
	(SMEs)	39.8	49.4	14.1	12.7	10.3	18.8	33.9	6.4
	Non-banks[4]	44.5	51.0	13.1	12.6	16.0	14.7	21.9	··
Direct financing	Corporate bond net issuance[5]	5.2	15.8	3.1	4.1	2.3	2.9	7.8	1.5
	CP net issuance[6]	0.8	-1.3	0.2	0.0	-2.8	4.7	-2.0	0.1
	Stock issuance[7]	10.1	6.3	2.0	1.2	2.1	0.7	1.7	2.1

Notes: 1) Based on changes in balances during the periods.
2) Based on Bank of Korea advance estimate.
3) Year-on-year growth rate of loan balances.
4) Based on loans by mutual savings banks, credit unions, mutual credit cooperatives, community credit cooperatives, and insurance companies (including public and other lending).
5) Based on corporate bonds issued through public offering by non-financial corporations (excluding ABSs but including P-CBOs).
6) Based on CP handled by securities firms, merchant banking corporations and trust accounts of banks.
7) Initial public offerings and paid-in capital increases.

Sources: Bank of Korea, Financial Supervisory Service, Korea Securities Depository, Korea Credit Information Services.

Household lending grows faster

Growth in household lending slowed in April and May, and accelerated again in June.

Household lending by banks increased at a slower rate in the second quarter compared to the quarter before. Growth in home mortgage loans slowed, as the demand for housing-related funds weakened moderately and the conversion to low-interest rate loans,[43] which acted as a push factor in the first quarter, decreased. Other loans continued to increase at a similar pace to the quarter before, driven by fund demand for seasonal consumption. Banks' monthly household lending grew from 4.9 trillion won in April and 5.0 trillion won in May to 8.2 trillion won in June and 7.6 trillion won in July. This is attributable to a large increase in other loans, unsecured loans[44] in particular, as household demand for livelihood-related funds continued, and funds for house purchases and leasehold *(jeonse)* deposits increased.

Household lending by non-banks reversed to an increase in the second quarter from a decrease in the quarter before, owing to the decline in the conversion to low-interest rate loans.

42) Net issuances of corporate bonds (public offering, general enterprises only, P-CBOs excluded) are as follows:

(trillion won)

Type	2018	2019				2020		
	Year	Year	Q2	Q3	Q4	Q1	Q2	Jul.
Prime (AA and above)	5.7	9.8	0.8	2.1	2.1	3.0	6.4	0.2
Subprime (A and below)	0.7	6.1	2.4	2.2	-0.0	-0.1	-0.2	0.8

Source: Korea Securities Depository.

43) As a result of the conversion to low-interest-rate loans, some of non-bank home mortgage loans were refinanced by bank loans (including home mortgage loans from Korea Housing Finance Corporation) between October 2019 and March 2020.

44) The growth of unsecured loans accelerated from 0.4 trillion won in April to 1.2 trillion won in May, to 3.3 trillion won in June, and to 3.4 trillion won in July (Source: Financial Supervisory Service).

Table I-8. Household lending by depository institutions[1]

(trillion won, %)

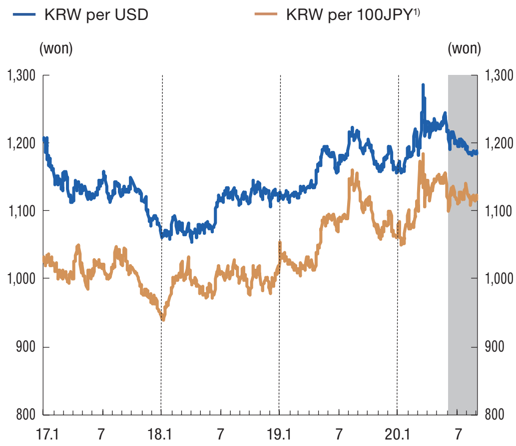
	2018	2019				2020		
	Year	Year	Q2	Q3	Q4	Q1	Q2	Jul.[2]
Total	67.3	56.3	15.4	16.1	21.8	20.3	18.3	··
(Rate of change)[3]	(6.2)	(4.9)	(5.2)	(5.1)	(4.9)	(6.4)	(6.5)	··
Commercial & specialized bank loans[4]	60.4	60.7	14.9	18.0	21.3	22.6	18.0	7.6
(Mortgage loans)[4][5]	38.1	45.8	10.6	12.4	14.9	18.4	13.9	4.0
(Other loans, including through overdraft accounts)	22.4	14.9	4.3	5.6	6.3	4.2	4.1	3.7
Non-bank depository institution loans[4]	6.8	-4.5	0.5	-1.9	0.5	-2.3	0.2	··
(Mutual credit cooperatives)	7.5	0.6	1.2	-0.8	0.4	-0.9	1.1	··
(Credit unions)	-1.4	-0.8	0.1	-0.3	-0.2	-0.7	-0.4	··
(Community credit cooperatives)	-1.9	-6.8	-1.6	-1.5	-0.5	-1.5	-1.3	··
(Mutual savings banks)	2.5	2.6	0.8	0.7	0.8	0.8	0.9	··
(Others)[6]	0.2	-0.1	-0.0	-0.1	0.1	-0.1	-0.1	··

Notes: 1) Based on changes in balances during the periods.
2) Based on Bank of Korea advance estimate.
3) Year-on-year growth rate of loan balances.
4) Including mortgage transfers.
5) Including housing-related loans, such as loans for leasehold deposits, moving expenses and intermediate payments, that are not collateralized by houses.
6) Trust accounts of banks and postal savings.
Sources: Bank of Korea, Korea Housing Finance Corporation.

Korean won/dollar exchange rate continues to decline

The Korean won/US dollar exchange rate fell below 1,200 won per dollar for the first time since the COVID-19 outbreak, as risk aversion eased following economic reopening in major countries in early June. Although it rebounded slightly due to concerns about the resurgence of COVID-19 in major countries and the US-China trade tensions, it fell back to the 1,180 won per dollar range in August as a result of the global weakening of the US dollar, the extension of the currency swap arrangement with the US Federal Reserve, and expectations of COVID-19 vaccine development. The Korean won/Japanese yen (100 yen) exchange rate showed movements similar to the won/dollar exchange rate, mainly affected by changes in preferences for safe assets in line with the developments regarding COVID-19 and the US-China trade dispute.

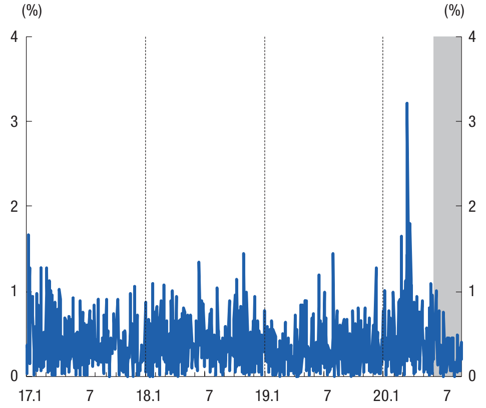
Figure I-21. Exchange rates



Note: 1) Final transaction standard rate offered to customers posted by Hana Bank during the day.
Sources: Bank of Korea, Hana Bank.

The volatility in the Korean won/US dollar exchange rate continued to shrink, falling below the average of last year (0.30%) in July (0.24%, monthly average) for the first time this year.

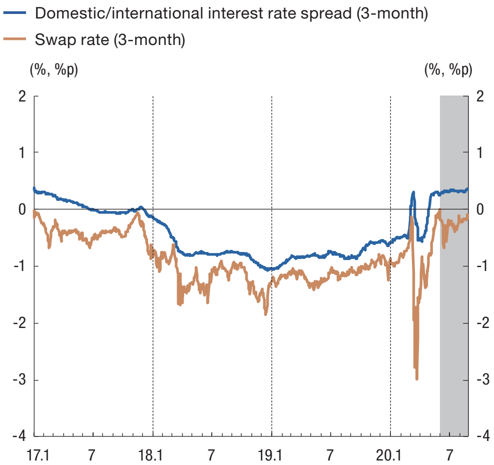
Figure I-22. KRW per USD exchange rate volatility[1)]



Note: 1) Daily change rate of the exchange rate.
Source: Bank of Korea.

The swap rate (3-month maturity) dropped temporarily in mid-June due to concerns about the coronavirus resurgence in major economies and a need to comply with the regulatory standard at the half-year-end. It then rose stably, driven by favorable US dollar liquidity conditions and the extension of the currency swap arrangement with the US Federal Reserve.

Figure I-23. Domestic/international interest rate spread[1)] and swap rate



Note: 1) Yield on Korean Monetary Stabilization Bonds (MSBs) (3-month) - US LIBOR (3-month).
Source: Bank of Korea.

Box I-1.

Developments and Characteristics of the Recent Money Growth

In the course of the response to COVID-19 this year, the money[1] supply has grown rapidly. The growth of M2 (broad money), the most typically used measure of market liquidity, rose from 7.9% in December 2019 to 9.9% in June 2020 (period average basis, year-on-year). This rate of growth is the highest since the global financial crisis (10.5% in October 2009), even exceeding that in September 2015 when the money supply increased sharply by 9.4% due to household credit growth. M1 (narrow money) growth skyrocketed from 9.6% in December 2019 to 21.3% in June this year, while the growth of Lf (liquidity aggregates of financial institutions) continued to grow at the mid-8% level. In this section, we examine the recent developments of the money supply through movements of monetary indicators.

Growth rate[1] of major monetary indicators

Note: 1) Year-on-year.
Source: Bank of Korea.

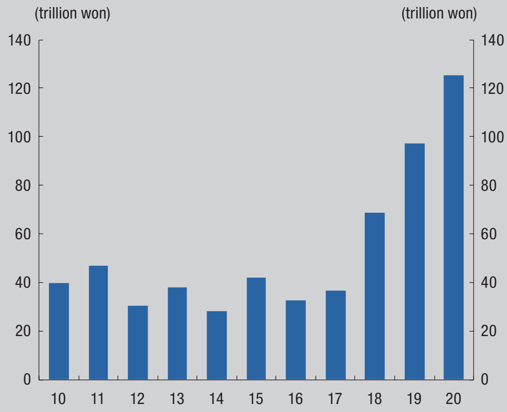
(Sharp growth in corporate credit)

The recent rapid growth in the money supply is mainly attributable to the sharp increase in the supply of liquidity to the corporate sector. Corporate credit provided by depository institutions (both banks and non-banks) increased by 125.2 trillion won, recording the largest first-half-year growth since the beginning of statistics compilation (December 2001). A detailed look shows that corporate lending by depository institutions rose by 119.5 trillion won, and credit supply through direct financing including corporate bonds by 5.7 trillion won. Liquidity supply to households also increased compared to the year before, albeit to a smaller extent than that to the corporate sector. Household credit rose by 22.8 trillion won in the

1) M1 (narrow money), which is a measure focusing on the function of money as a means of payment and settlement, is defined as currency and highly liquid deposits at depository institutions including demand deposits and transferable deposit accounts. M2 (broad money) is a broader measure of money that includes M1 plus fixed and installment savings and time deposits, marketable instruments such as certificates of deposit and repurchase agreements, yield-based dividend instruments such as money in trust and beneficiary certificates, and financial debentures, all of which are with maturity of less than two years. Lf (liquidity aggregates of financial institutions) comprises M2 plus fixed and installment savings and time deposits, financial debentures and money in trust with maturity of more than two years, in addition to relatively less liquid instruments such as insurance reserves at life insurance companies and deposits with the Korea Securities Finance Corporation.

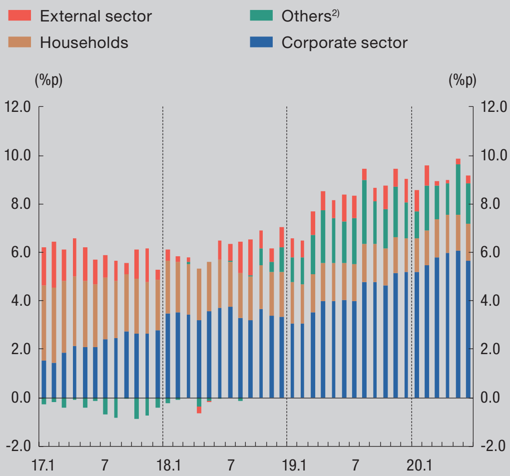
first half of 2020, which is 1.4 times larger than the increase during the same period of last year (15.8 trillion won). An examination of the contributions to the total credit[2] growth (9.2% in June 2020, year-on-year) shows that the contribution of corporate credit was 5.7 percentage points, while that of household credit stood merely at 1.5 percentage points.

Changes in corporate credit in H1 (Jan. to Jun.)



Source: Bank of Korea.

Contributions to total credit growth[1]



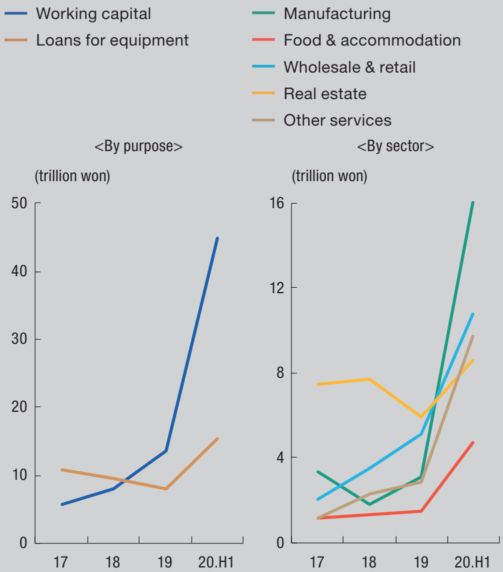
Notes: 1) Year-on-year.

2) Central and local governments, social security organizations, other financial institutions, etc.

Source: Bank of Korea.

The massive supply of money to the corporate sector appears to have been used mostly for business activities aimed at overcoming the COVID-19 shock. In terms of loan purpose, there was a sharp increase in working capital loans, which grew by 13.7 trillion won in 2019 (quarterly average) and recorded larger growth of 44.9 trillion won in the first half of 2020. Loans for equipment related to facility investment also increased significantly compared to before. In terms of sector, loans to hard-hit sectors such as manufacturing and wholesale/retail increased sharply, while loans taken by the real estate sector surpassed the normal-year level only slightly.

Changes[1] in corporate lending



Note: 1) Quarterly average during the period

Source: Bank of Korea

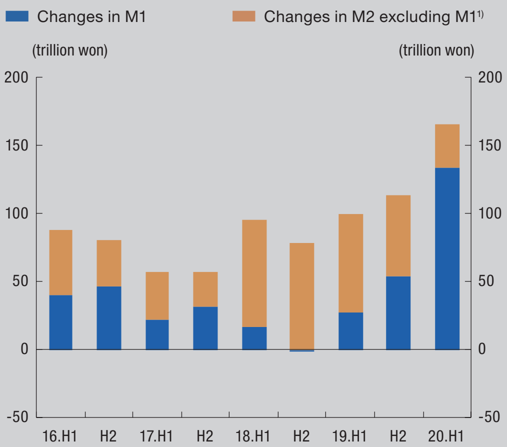
(Short-term management of funds)

Economic agents managed most of their money through short-term financial products. A breakdown of M2 growth in the first half of this year

2) Based on domestic and foreign credit from the Depository Corporations Survey.

(both including M1 and excluding M1) shows that M1 consisting of money market deposits (+72.6 trillion won) and demand deposits (+49.1 trillion won) increased by 133.0 trillion won, accounting for 80.7% of the total M2 growth (164.9 trillion won). In contrast, medium- and long-term financial products not included in M1, such as time deposits and beneficiary certificates, grew to a relatively smaller extent in the same period, by 31.9 trillion won. This is primarily because medium- and long-term financial products became less attractive due to low interest rates,[3] and corporate financing was mostly managed in short-term products. This led the share of M1 in M2 to rise sharply from 31.8% in December 2019 to 34.4% in June 2020.

Changes in components of M2



Note: 1) Financial instruments comprising M2 excluding M1.
Source: Bank of Korea.

Proportion of M1 in M2

Source: Bank of Korea.

(Assessment)

As a result of the large increase in corporate credit supply by financial institutions in line with the Bank of Korea's accommodative monetary policy and the government's financial support for companies after the COVID-19 outbreak, the money supply has grown rapidly. This increase in liquidity mainly in the corporate sector is regarded as contributing to easing the real economic shock from COVID-19 by improving corporations' financing conditions[4] and supporting their business activities.

However, given that market liquidity has become more short term as a result of the lowest-ever level of market interest rates and greater uncertainties due to COVID-19, it should be noted that these short-term funds could become concentrated into the asset market in the search for yield.

3) Interest rate for time deposits (1-year) at commercial banks (%, annualized, new deposits basis): 1.62 in January 2020 → 1.37 in March → 1.19 in May → 1.02 in June → 0.94 in July.

4) Business Survey Index (surveyed by the Bank of Korea): 83 in January 2020 → 78 in February → 68 in March → 66 in April → 66 in May → 70 in June → 76 in July → 78 in August.

Box I-2.

Review of Changes in Recent Financial Conditions

The Bank of Korea cut the Base Rate and provided greater liquidity in response to the economic downturn and worsening financial conditions following the COVID-19 shock. Since then, long-term market rates have fallen, financial institutions' credit supply has increased and market liquidity has grown at a faster pace. In this section, we use major financial indicators—interest rates, stock prices, and liquidity— to look into changes in financial conditions in line with monetary easing.

Base Rate and long-term market rates

Source: Bank of Korea.

(Interest rates and stock prices)

The Bank of Korea lowered its Base Rate by 75 basis points on two occasions since the outbreak of COVID-19. Accordingly, the real Base Rates, calculated by subtracting core inflation (excluding food and energy prices) and inflation expectations (of the general public for the next one year) from the Base Rate (nominal), decreased to 0.4% and -1.1%,[1] respectively, as of the second quarter of 2020. Meanwhile, long-term market rates plunged due to the Base Rate cuts and foreign bond investment inflows.[2] Therefore, the real long-term interest rates calculated by subtracting inflation expectations[3] (for the next three years) from long-term market rates (based on the 3-year Treasury bond yield) declined to -1.0% as of the second quarter this year.

Real Base Rate

Notes: 1) Inflation expectations for the next one year.
2) Food and energy prices excluded, year-on-year.
Source: Bank of Korea.

1) The real Base Rates are relatively high compared to those during the global financial crisis. After the Base Rate was cut by 325bp during the GFC, the real policy rates fell to -1.8% and -2.3%, respectively, as of the first quarter 2009.

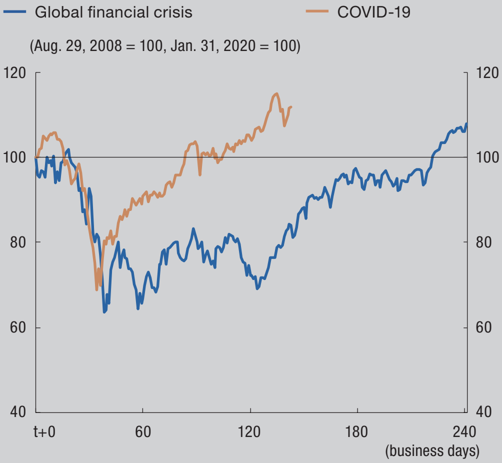
2) Since the outbreak of COVID-19, foreigners' bond investment has recorded net inflows of 21.8 trillion won (from February through July 2020). During the global financial crisis, however, foreigners' bond investment posted net outflows of 12.9 trillion won (from September 2008 through February 2009), acting as a factor restraining declines in long-term interest rates.

3) Inflation expectations released by Consensus Economics, Inc. were used.

Real long-term interest rate[1]

Note: 1) Calculated by subtracting consensus inflation expectations (for the next 3 years) from the Treasury bond yield (3-year).
Source: Bank of Korea.

Stock prices after global financial crisis and COVID-19[1]



Note: 1) Standardized as t=100 (based on end-August 2008 for the global financial crisis and end-January 2020 for COVID-19).
Source: KRX.

Stock prices recovered quickly thanks to retail investors' large-scale investment in the stock market.[4] Stock prices took eleven months to recover to the pre-crisis levels during the global financial crisis, but the rebound took only four months during the COVID-19 pandemic.

(Liquidity and credit)

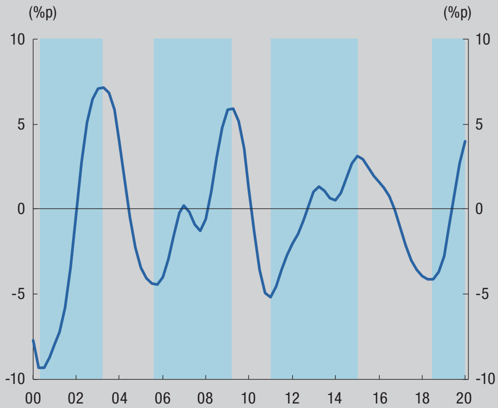
Recently, market liquidity has continued to rise rapidly with the increasing growth rate of currency indicators led by M1. As market liquidity increased at a faster pace amid sluggish real economic activity, the liquidity relative to the real economy is seen relatively abundant.[5] The rise in market liquidity is assessed to be affected by a combination of factors such as policy actions taken by the government and the Bank of Korea in response to COVID-19 as well as the expanded demand for funds by corporations and households.

According to our analysis of private credit, recent credit conditions are estimated to fall in an expansionary phase.[6] This is because the

4) During the first half of this year, retail investors' net purchases reached 39.7 trillion won, greatly exceeding the highest half-year figure recorded in the past (9.6 trillion won during the first half of 2018).
5) The plus real money gap widened even after the spread of COVID-19, implying that market liquidity remains considerably higher than the optimal amount needed at the long-term equilibrium level of the real economy.
6) This is estimated by applying the Band-Pass (BP) filter to the private credit rate (the rate of household and corporate credit relative to nominal GDP in the flow of funds table); see BIS (2014), based on Christiano-Fitzgerald (2003). It is worth noting that the phase of the credit cycle could differ depending on the estimation method used.

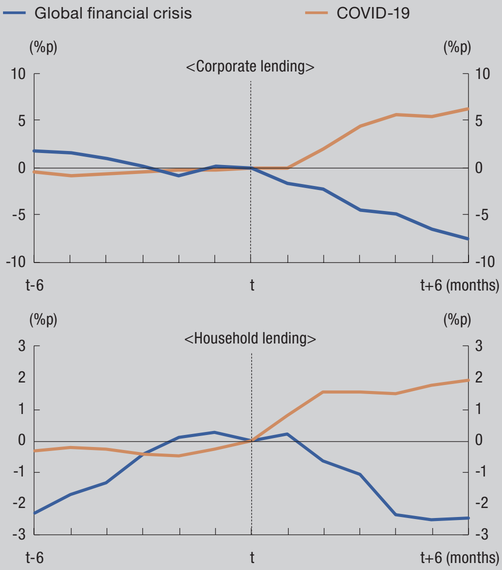
amount by which private credit exceeds its trend level has increased to a larger extent with the rapid rise in corporate lending amid the continuous growth in household debt.[7)]

Estimation of private credit cycle[1)]



Note: 1) Based on BP filter (shaded areas mean expansionary phases of the credit cycle).
Source: Bank of Korea.

Changes in growth rates of corporate and household lending[1)] before and after global financial crisis and COVID-19[2)]

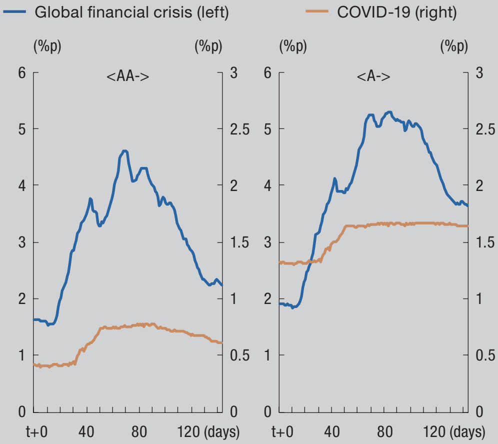


Notes: 1) Based on deposit banks, year-on-year.
2) Standardized as t=0 (based on August 2008 for the global financial crisis and January 2020 for COVID-19).
Source: Bank of Korea.

Regarding credit risk indicators, however, corporate bond credit spreads rapidly widened immediately following the outbreak of COVID-19 and have not fallen much since then.[8)] Financial institutions' risk aversion to corporate credit risks have grown led by SMEs, unlike during the global financial crisis.

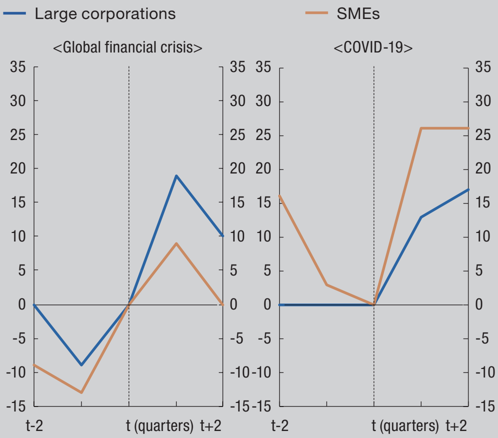
7) During the GFC, the credit cycle turned to a contractionary phase as the growth rate of household and corporate lending slowed. Recently, however, the credit cycle is estimated to be at an expansionary phase with household and corporate lending steadily increasing.
8) However, the degree of rise in the corporate bond credit spread since the COVID-19 outbreak has been limited compared to that during the global financial crisis.

Corporate bond risk premium (relative to 3-year Treasury bond)[1)]



Note: 1) T is end-August 2008 for the global financial crisis and end-January 2020 for COVID-19.
Source: Korea Financial Investment Association.

Changes[1)] in credit risks[2)] for large corporations and SMEs

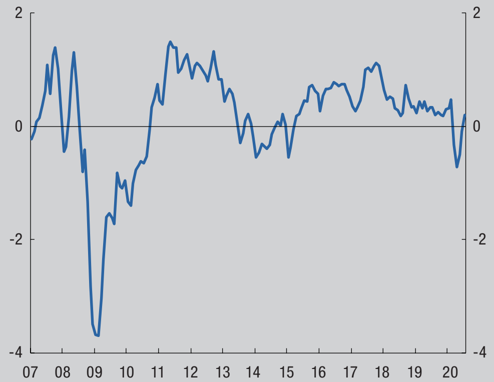


Notes: 1) Standardized as t=0 (based on Q3 2008 for the global financial crisis and Q1 2020 for COVID-19). The figure for Q3 2020 is based on estimation.
2) Based on a survey of banks' lending attitudes (an increase in the index means a rise in the credit risks of lending).
Source: Bank of Korea.

(Financial Conditions Index)

According to our analysis, the Financial Conditions Index (FCI)[9)] calculated based on major financial market price indicators temporarily saw a considerable tightening due to the outbreak of COVID-19 but recovered to the neutral level in June and turned accommodative following July. When the trend of Financial Conditions Index is compared with that of the global financial crisis, the extent of its tightening since the outbreak of COVID-19 was relatively limited and it recovered more quickly to neutral and accommodative levels.

Financial Conditions Index



Source: Bank of Korea.

(Assessment)

Given the movements of major financial indicators including interest rates, stock prices and liquidity, recent financial conditions overall are seen as accommodative and supportive of real economic recovery. The improvement in financial conditions suggests a seamless transmission of the monetary easing conducted so far such as policy rate cuts and liquidity expansion

9) The Financial Conditions Index is constructed by standardizing the weighted sum of six major financial variables, such as interest rates, exchange rates and stock prices, that are important in assessing financial conditions. If the index is above (below) 0, it means that financial conditions are accommodative (tight).

as policy rate cuts and liquidity expansion to the financial market, and is judged to have contributed to preventing excessive contraction of the real economy. However, we need to pay attention to the persistence of credit risk aversion regarding subprime corporations and SMEs, as well as to the growing concerns about a buildup in financial imbalances such as rises in housing prices[10] and household debt under the accommodative financial conditions.

10) The details of the recent housing price trends are described on page 13 of the text.

Ⅱ

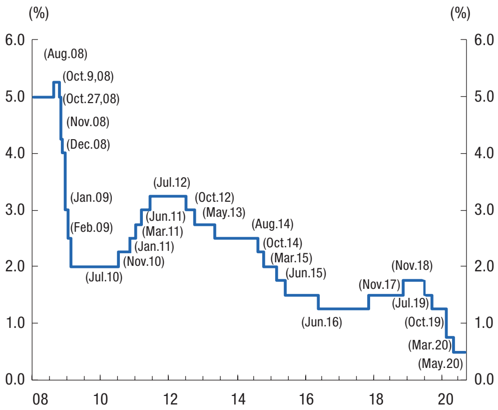
Conduct of Monetary Policy

1. Base Rate

Base Rate operated at 0.50%

The Bank of Korea maintained its accommodative policy stance to support the recovery of growth and to help inflation stabilize at the 2.0% target over a medium-term horizon. In this process it closely examined risk factors such as the developments of the COVID-19 pandemic, its financial and economic impacts at home and abroad, and changes in financial stability conditions. Under this policy stance, the Bank maintained the Base Rate at 0.50% per annum.

Figure II-1. Bank of Korea Base Rate[1)]



Note: 1) Figures in parentheses refer to the months of Base Rate adjustments.

Source: Bank of Korea.

A detailed look at the Base Rate decisions during this period, and the backgrounds behind them, are as follows:

At the July meeting, the Board decided to leave the Base Rate unchanged at 0.50% considering that it was necessary to monitor the effects of the multi-faceted monetary and fiscal measures taken so far on real economic activities and the financial markets, amid high uncertainties surrounding the growth path depending upon the development of COVID-19. The domestic economy remained sluggish, as exports continued to decline, the adjustment in construction investment continued, and the recovery in facilities investment was delayed, although consumption had rebounded with government's stimulus package and the relaxation of some pandemic-related restrictions on economic activity. Looking ahead, the Board saw the domestic economy as likely to improve gradually in the second half of the year, but the trend of improvement as likely to be affected largely by the development of the pandemic. Specifically, it was expected that the trend of recovery would be weaker than expected as improvement in exports, which are closely associated with the global economy, was delayed. Consumer price inflation had fluctuated at around 0%, held down by a (year-on-year) decline in the prices of petroleum products and public services. It was forecast that consumer price inflation would run at the lower-0% level for some time, reflecting prolonged effects from the low global oil prices and weak inflationary pressures. On the financial stability side, housing price growth had accelerated and the increase in household loans had expanded.

At the August meeting, the Board left the Base Rate unchanged at 0.50%, based on a judgment that it was necessary to keep an eye on the future development of COVID-19 and the effects of the expansionary monetary and fiscal policies that had been actively undertaken to deal with it, although the domestic resurgence of COVID-19 would likely delay economic recovery. Looking at the domestic economy, although the decline in exports had moderated a bit, the improvement in private consumption had weakened, the recovery in facilities investment was subdued, and the adjustment in construction investment continued. Going forward, it was forecast that the improvement in private consumption would be limited due to the domestic resurgence of COVID-19. Accordingly, GDP growth for this year was expected[45] to fall to slightly below -1%, considerably lower than the May forecast of -0.2%. Consumer price inflation had risen to 0.3% in July, due to a larger increase in the prices of agricultural, livestock, and fishery products, and to a reduced decline in petroleum product prices. The Board expected consumer price inflation for this year to be slightly above the May forecast of 0.3%. However, the pace of increase in consumer price inflation was expected to slow, as structural factors, such as increased non-face-to-face online transactions, would put downward pressures on inflation, amid moderate economic recovery. Meanwhile, housing prices had continued to increase in all parts of the country, and the rate of household loan growth had risen. The Board thus saw the need to thoroughly examine the effects of the government's recent policy measures to stabilize the real estate market, and the consequent changes in financial stability conditions.

Open market operations to maintain call rate at Base Rate level

In order to influence the overnight call rate so that it does not deviate greatly from the Base Rate, the Bank of Korea adjusts market liquidity by utilizing its open market operation instruments, including issuance of Monetary Stabilization Bonds (MSBs), RP transactions, and deposits into the Monetary Stabilization Account (MSA).

In the second quarter, the total amount of liquidity adjustment needed (average balance basis) decreased slightly from the previous quarter due to the continued expansion of currency issuance.[46] However, in July, it grew month-on-month owing to an increase in government borrowing[47] from the Bank of Korea for further fiscal spending. The Bank responded by expanding the issuance of MSBs[48] and flexibly adjusted[49] the amount of

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45) The revised outlook for the growth rate in August is based on the assumption that the resurgence of COVID-19 will last for a similar length of time as the initial spread of the virus between February and March.

46) As the effects of the expanded currency issuance during the Lunar New Year holiday in January (5.6 trillion won over the ten business days immediately preceeding the Lunar New Year holiday) continued, the value of outstanding currency (average balance basis) in the second quarter increased by 4.2 trillion won compared to the previous quarter. A decrease in financial institutions' reserve requirements with the Bank of Korea due to expanded currency issuance lowers the amount of liquidity that needs to be withdrawn.

47) Affected by the implementation of the third supplementary budget (approved by the National Assembly on July 3) owing to COVID-19, outstanding government borrowing (average balance basis) increased from the previous month.

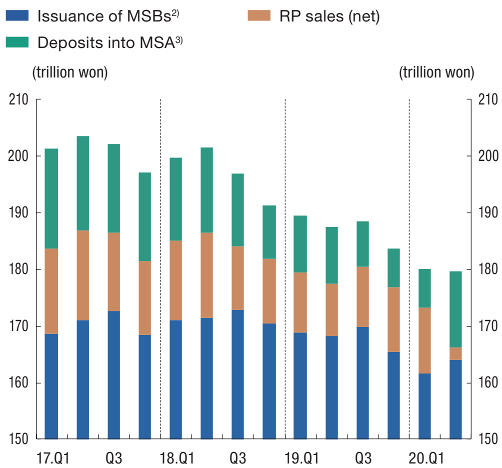
48) The issuance of Monetary Stabilization Bonds (average balance basis) in the second quarter rose by 2.4 trillion won from the previous quarter, and increased by 2.9 trillion in July.

49) In order to respond to the possibility of expanded interest rate volatility stemming from the temporary mismatch of fund supply and demand, the Bank purchased one-day RPs (2.5 trillion won in June, 0.9 trillion won in August) on the closing days of bank reserve settlement in June (Jun. 10) and August (Aug. 5), and took MSA deposits (4.0 trillion won) on the closing day of bank reserve settlement in July (Jul. 8).

RP transactions[50] and the amount of deposits into the MSA, given supply and demand conditions in the short-term money market.

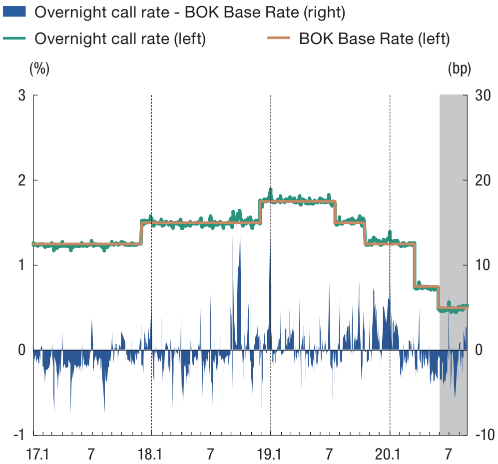
Meanwhile, the Bank managed market liquidity at a sufficient level while ending some of market stabilization measures[51] through open market operations since the financial unrest from the spread of COVID-19 was easing gradually. As a result, the call rate remained generally stable at around the Base Rate.

Figure II-2. Liquidity adjustment[1] by means of open market operations



Notes: 1) Quarterly average balance basis.
2) Monetary Stabilization Bonds.
3) Monetary Stabilization Account.
Source: Bank of Korea.

Figure II-3. Bank of Korea Base Rate and overnight call rate



Source: Bank of Korea.

50) Due to the full-allotment RP purchase facility through which an unlimited amount of liquidity is provided, the RP net sales (average balance basis) in the second quarter decreased by 9.4 trillion won from the previous quarter.
51) The details are described in II.3. Market Stabilization Measures.

2. Bank Intermediated Lending Support Facility

Support through Bank Intermediated Lending Support Facility for companies affected by COVID-19

To ensure that banks actively lend to small and medium-sized enterprises, the Bank of Korea operates the Bank Intermediated Support Facility, through which it supports banks by supplying them with funds at interest rates lower than the Base Rate. When necessary, the Monetary Policy Board adjusts the Bank Intermediated Lending Support Facility's total ceiling, and its individual program ceilings and reserves, in consideration of financial and economic trends and SME funding conditions.

The Bank of Korea increased the total ceiling of the Bank Intermediated Lending Support Facility on two occasions this year, in March and May, raising the ceiling by a total of 10 trillion won, from 25 trillion won to 35 trillion won. In March, the Bank strengthened its financial support for companies affected by COVID-19, by cutting the annual interest rates of individual programs under the Bank Intermediated Lending Support Facility to 0.25% from 0.50-0.75%. Banks' lending to firms affected by COVID-19 reached 14.3 trillion won from March through June and a total of 55,946 firms used this lending facility. Regarding the support for these companies, sole proprietors took up 46.1% as the lending to the self-employed were given preferred lending rates[52] under this scheme. This financial support by the Bank of Korea is estimated to have contributed to improving companies' funding conditions by heightening the financial accessibility of the self-employed and SMEs severely affected by COVID-19 and by reducing their interest payment burden.

The ceilings of each program under the Bank Intermediated Lending Support Facility are as follows: 2.5 trillion won for the Support Program for Trade Financing, 11 trillion won for the Support Program for New Growth Engine Development and Job Creation, 5.5 trillion won for the Program for Stabilization of SME Lending, 5.9 trillion won for the Support Program for Regional Enterprises, and 10.0 trillion won for the Support Program for Companies Affected by COVID-19.[53] The total ceiling stands at 35 trillion won, which includes reserves of 0.1 trillion won. The interest rates on support programs under the Bank Intermediated Lending Support Facility are 0.25% per annum.

52) 75-100% for the self-employed and those firms with low credit ratings, and 50% for those firms with middle and high credit ratings.

53) Specifically, relevant companies include all SMEs (including sole proprietors) in the service sector, but for the manufacturing sector, they include the SMEs selected by BOK regional branch heads in consideration of the overall damage done to manufacturing SMEs in their respective regions. Regarding the sectors aside from service and manufacturing, relevant companies include SMEs chosen by BOK regional branch heads in view of the damage caused by COVID-19 in their respective regions.

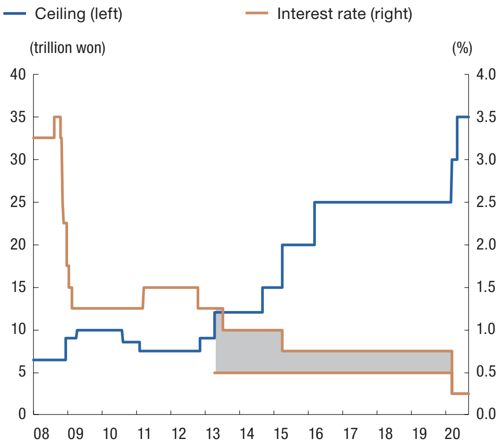
Table II-1. Programs under the Bank Intermediated Lending Support Facility

(trillion won, %)

Program	Ceiling	Interest rate
Support Program for Trade Financing	2.5	0.25
Support Program for New Growth Engine Development and Job Creation[1)]	11.0	0.25
Program for Stabilization of SME Lending[2)]	5.5	0.25
Support Program for Regional Enterprises	5.9	0.25
Support for SMEs Affected by COVID-19	10.0	0.25
Total	35.0[3)]	-

Notes: 1) The Support Program for High-tech and Other Start-up SMEs was expanded and reorganized as the Support Program for New Growth Engine Development and Job Creation (September 2017).
2) Includes the support that had been formerly provided under the Support Program for Facilities Investment.
3) Includes reserves of 0.1 trillion won.
Source: Bank of Korea.

Figure II-4. Ceiling and interest rates of Bank Intermediated Lending Support Facility



Source: Bank of Korea.

3. Market Stabilization Measures

The Bank of Korea has promoted stability and smooth credit flows in the financial and FX markets by actively using various policy instruments.

Liquidity supply

The Bank of Korea's regular RP purchase facility, through which an unlimited amount of liquidity was supplied[54] to ensure financial market stability and support the implementation of the government's Financial Support Package, was extended by one month to the end of July following its temporary operation from April to June. This extension was made in order to alleviate the market shock that could arise from full redemption of RPs at maturity in July. Through this measure, the Bank additionally supplied a total of 4.02 trillion won worth of liquidity on four occasions in July. Accordingly, the total amount of liquidity provided to financial institutions through the unlimited RP purchase program stood at 19.43 trillion won.[55] This full-allotment RP purchase facility was not extended further following August, considering improvements in securities companies' funding conditions and low auction demand relative to the volume of maturing RPs.

Table II-2. Liquidity supply through full-allotment RP purchase[1] facility

(trillion won)

April	May	June	July	Total supply[2]
12.33	0.26	2.82	4.02	19.43

Notes: 1) Conducted every Tuesday since its first purchase on April 2.
2) Total amount supplied as of July 28.
Source: Bank of Korea.

When selecting[56] institutions eligible for open market operations for the next one year (from August 1, 2020 to July 31, 2021), the Bank broadened the range of financial institutions eligible for RP transactions in consideration of the need for swift and broad provision of liquidity in response to COVID-19. Accordingly, the number of qualified institutions was increased to a total of 27 from the existing 22 of the previous year (selected as of July 2019) by adding 1 domestic bank and 4 non-bank financial institutions.[57] Meanwhile, 20 financial institutions eligible for competitive auctions and offerings of Monetary Stabilization Bonds as well as for outright securities transactions, and 9 of those eligible for securities lending were chosen by the Bank as in the previous year.

54) The Bank of Korea adopted a weekly regular RP purchase facility through which it bought bonds (91-day) in repo auctions at a fixed interest rate in full without any auction limit.

55) The offering rate was applied flexibly for each auction, in view of securities companies' short-term financing rates and secondary market yields of bonds with the same maturities. The Base Rate+3bp was applied in April and May, and the Base Rate+5bp and the Base Rate+8bp were applied in June and July, respectively.

56) Every July the Bank of Korea selects financial institutions that can participate in open market operations over the one-year period from August of the current year to July of the following year. The eligible financial institutions are divided and selected into three categories of those eligible for MSB competitive auctions and offerings and outright securities transactions, those eligible for RP transactions and the Monetary Stabilization Account, and those eligible for securities lending.

57) Meanwhile, the expansion of the list of financial institutions eligible for RP transactions (11 securities companies were added) ended after its temporary operation from April to July.

Table II-3. Financial institutions eligible for RP transactions

Period	Banks[1]	Non-bank financial institutions
August 2020 - July 2021	(14 domestic banks) Kookmin Bank, Shinhan Bank, Woori Bank, Hana Bank, Nonghyup Bank, Standard Chartered Bank Korea, Industrial Bank of Korea, Citibank Korea, Korea Development Bank, Kyongnam Bank, Gwangju Bank, Daegu Bank, Busan Bank, KakaoBank[2] (4 foreign bank branches) Mizuho, BNP Paribas, ING, JPMorgan Chase	(8 securities firms) Mirae Asset Daewoo, Samsung Securities, Shinyoung Securities, NH Investment & Securities, Shinhan Investment,[2] Eugene Investment & Securities,[2] Hana Financial Investment,[2] Korea Investment & Securities[2] (1 securities finance firm) Korea Securities Finance Corp.

Notes : 1) Banks eligible for RP transactions are automatically qualified for Monetary Stabilization Account transactions.
2) Newly selected institutions (compared to those selected in July 2019).
Source: Bank of Korea.

Treasury bond, CP and corporate bond market stabilization

To improve supply and demand conditions for Treasury bonds and secure securities eligible for RP transactions while curbing the heightening volatility of market interest rates in line with the spread of COVID-19, the Bank of Korea conducted outright purchases of Treasury bonds in July (on Jul. 2, 1.5 trillion won) and August (on Aug. 31, 1.5 trillion won) following those in March (on Mar. 20, 1.5 trillion won) and April (on Apr. 10, 1.5 trillion won). While purchasing mostly benchmark bonds in March when greater focus was placed on market stabilization, the Bank purchased mostly non-benchmark bonds with low transaction volume in July and August as it did in April in an effort to enhance primary dealers' capacity to underwrite Treasury bonds (benchmark bonds).

The Bank also decided to extend the Corporate Bond-Backed Lending Facility by three months to November 3, which was adopted as a safety net for businesses, banks and nonbank financial institutions bracing for severe difficulties in raising funds. Although the financial markets have somewhat stabilized recently, the Bank determined that the extension would be effective in meeting its objective of ensuring financial stability as financial and economic uncertainties still persisted at home and abroad due to the possible prolongation of COVID-19. It was decided that other conditions[58] for operating the facility including eligible institutions, the ceiling and eligible collateral would remain the same as before.

58) Eligible institutions: banks, securities companies, insurance companies; ceiling: 10 trillion won; lending rate: yield on Korean Monetary Stabilization Bonds (182-day) + 85bp; eligible collateral: prime corporate bonds (rated at least AA-) issued by private enterprises with remaining maturity of five years or less.

Meanwhile, the Bank of Korea, together with the government, completed preparations for and activated an SPV[59] to manage purchases of corporate bonds and commercial paper, including lower-rated ones, in order to mitigate corporate funding difficulties in the credit and securities markets. The SPV was established on July 14 after the Bank of Korea, the government and a state-run financial institution (Korea Development Bank) consulted on how the vehicle would be operated and funded. The Bank of Korea then held an unscheduled Monetary Policy Board Meeting on July 17, at which members decided on the loan ceiling and conditions and carried out the first lending amounting to 1.78 trillion won. The SPV created 3 trillion won[60] worth of financial resources including the Bank of Korea's primary loans for the first round and started purchasing corporate bonds and commercial paper in earnest from July 24.[61]

FX market stabilization

The Bank of Korea extended the 60 billion dollar currency swap agreement with the US Federal Reserve by six months from September 30 this year to March 31 next year, judging that uncertainties surrounding COVID-19 still persisted, even though global dollar and domestic FX markets remained stable. However, the Bank suspended new US dollar loans using funds from the swap line after mid-May, considering stable US dollar funding conditions at home and abroad, and sequentially called in all competitive loan facility auctions (a total of 19.872 billion dollars) conducted between March and May this year.

If market unrest reoccurs in the domestic and global markets, the Bank of Korea will take active market stabilization measures by, for instance, resuming the provision of funds using the currency swap agreement with the US Federal Reserve.

59) According to the plan, the 10 trillion won SPV will consist of Korea Development Bank’s (the government’s) 1 trillion won investment, Korea Development Bank’s 1 trillion won of subordinated loans, and 8 trillion won of primary loans extended by the Bank of Korea. If necessary, the size of the SPV can be expanded to a maximum of 20 trillion won.

60) This consists of the Bank of Korea’s 1.78 trillion won of primary loans, Korea Development Bank’s 1 trillion won investment, and Korea Development Bank’s 0.22 trillion won of subordinated loans.

61) The details are described in Box II-1. The Bank of Korea's Financial Market Stabilization Measures through a Special Purpose Vehicle (SPV) to Manage Purchases of Corporate Bonds and Commercial Paper.

Table II-4. Loan supply and redemption of competitive loan facility auctions

(100 million dollars)

Round	Supply	Redemption
March 31 (round 1)	79.20 (84-day)	79.20 (June 25)
	8.00 (7-day)	8.00 (April 9)
April 7 (round 2)	41.40 (84-day)	41.40 (July 2)
	2.75 (8-day)	2.75 (April 17)
April 14 (round 3)	20.15 (83-day)	20.15 (July 9)
	0.10 (6-day)	0.10 (April 23)
April 21 (round 4)	21.19 (84-day)	21.19 (July 16)
April 27 (round 5)	12.64 (85-day)	12.64 (July 23)
May 6 (round 6)	13.29 (83-day)	13.29 (July 30)
Total	198.72	198.72

Source: Bank of Korea.

In the meantime, as part of its efforts to secure new policy instruments for FX market stability, the Bank of Korea has been pursuing the introduction of a new foreign currency liquidity supply facility through transactions of foreign currency bond repurchase agreements carried out by competitive auctions. Under this facility, the Bank will provide US dollar funds by purchasing US Treasury bonds held by domestic financial institutions on condition of repurchasing them. This is expected to contribute to stability in the swap market by absorbing some structural demand for foreign funds by non-bank financial institutions during times of crisis.

Table II-5. Bank of Korea's market stabilization measures related to COVID-19 since March

(as of September 9)

Policy response measures			Major details	Changes since June
Base Rate	Base Rate cut		• 1.25% → 0.50% (0.75%p)	-
Bank Intermediated Lending Support Facility	Raised ceiling and lowered the interest rate on the Bank Intermediated Lending Support Facility		• Increase in ceiling: 25 trillion won → 30 trillion won → 35 trillion won • Lending rate cut: 0.5%-0.75% → 0.25%	-
Market stabilization measures	Liquidity provision	Carried out full-allotment RP purchases	• Auction method: Liquidity is supplied by purchasing bonds (at a fixed interest rate) in full without any auction limit. • Auction interest rate: The offering rate[1] is announced whenever an auction takes place. • Maturity: 91 days • Amount supplied: A total of 19.43 trillion won	• Auction period: Expired at end-July after a one-month extension • Amount supplied since June: 2.82 trillion in June, 4.02 trillion in July
		Carried out RP purchases from non-bank financial institutions	• Amount supplied: A total of 3.5 trillion won (1.0 trillion won on March 19, 2.5 trillion won on March 24) • Maturity: 14 days	-
		Broadened the range of institutions eligible for open market operations	• The range of institutions eligible for RP transactions was broadened: Seven institutions eligible for Monetary Stabilization Bond transactions and four primary dealers	• Implemented temporarily and expired end-July[5]
		Broadened the range of securities eligible for open market operations	• The list of securities eligible for outright transactions was broadened: MBSs issued by the Korea Housing Finance Corporation and debentures issued by three specialized banks[2] • The range of securities eligible for RP transactions was broadened: Debentures issued by three specialized banks, general bank debentures,[3] bonds issued by nine public organizations[4]	-
		Expanded the range of eligible collateral for lending facilities	• The range of eligible collateral for lending facilities was expanded: MBSs issued by Korea Housing Finance Corporation, debentures issued by three specialized banks,[2] general bank debentures,[3] bonds issued by nine public organizations[4]	-
		Improved collateral availability of financial institutions	• The ratio of collateral for guaranteeing net settlements was lowered (70% → 50%) • The eligible collateral for guaranteeing net settlements was broadened: General bank debentures,[3] bonds issued by nine public organizations[4]	-

	Stabilization of Treasury, corporate bond and CP markets	Performed outright purchases of Treasury bonds	• Amount purchased: A total of 6.0 trillion won (1.5 trillion won each on March 20, April 10, July 2, and August 31)	• Amount purchased since June: 3.0 trillion won
		Launched the Corporate Bond-Backed Lending Facility	• Ceiling: 10 trillion won • Rate: Yield on Korean Monetary Stabilization Bonds (182 days) + 85bp • Maturity: Within six months • Eligible collateral: Prime corporate bonds (rated at least AA-) issued by private enterprises with remaining maturity of five years or less	• Extension of operation: August 3 → November 3, 2020
		Supported the credit market through an SPV that purchases corporate bonds and commercial paper, including lower-rated ones	• Size: 10 trillion won (The size can be expanded to up to 20 trillion won, in accordance with market conditions) • Funding structure: Bank of Korea's primary loans (8 trillion won), Korea Development Bank's investment (1 trillion won) and subordinated loans (1 trillion won) • Operating period: Whether to extend the operating period will be determined in consideration of market stability conditions after six months of SPV operation	• BOK decided to make primary loans (July 17) • BOK made its first loans (July 23, 1.78 trillion won)
	FX market stabilization	Signed a bilateral currency swap arrangement with the US Federal Reserve	• A 60.0 billion US dollar bilateral currency swap arrangement was signed.	• Maturity extension: September-end 2020 → March-end 2021
		Implemented competitive US dollar loan facility auctions	• A total of 19.872 billion US dollars was supplied.	-
		Raised the ceilings on FX derivatives positions of banks	• Domestic banks (40% → 50%) and foreign bank branches (200% → 250%)	-
		Temporarily lifted the levy on financial institutions' non-deposit FX liabilities	• Banks, securities companies, and insurance companies were exempted from the levy for three months (during the period between April and June 2020).	-
		Purchase of foreign currency bond repurchase agreements	• The Bank of Korea will provide US dollar funding to domestic financial institutions through foreign currency bond repurchase agreements. • Eligible bonds: US Treasury bonds (US government agency bonds if necessary) • Maturity: Within 88 days	• Discussion to adopt the facility is underway

Notes: 1) “Base Rate+10bp” was set as the ceiling of the offering rate between April and June 2020, and “Base Rate+spread” was set as the offering rate during July, with a spread of less than 10bp applied when the facility was actually operated.

2) Debentures issued by the Korea Development Bank, the Industrial Bank of Korea, and the Export-Import Bank of Korea

3) Including debentures issued by the National Agricultural Cooperative Federation and Nonghyup Bank, and by the National Federation of Fisheries Cooperatives and Suhyup Bank.

4) Korea SMEs and Startups Agency, Korea Gas Corporation, Korea Express Corporation, K-Water, KEPCO, Korail, Korea Rail Network Authority, Korea Land & Housing Corporation, and Korea Deposit Insurance Corporation.

5) However, when selecting financial institutions eligible for open market operations over the next one year (from August 2020 to July 2021), the range of financial institutions eligible for RP transactions was expanded to 27 from the previous year's 22 (selected in July 2019).

Source: Bank of Korea.

4. Other Monetary Policy Measures

The Bank of Korea is also working to strengthen its global financial cooperation and improve the safety and efficiency of the payment and settlement systems, while enhancing monitoring of financial and FX market movements and of financial stability conditions.

Monitoring of financial and FX market conditions enhanced

The Bank of Korea constantly monitored movements in the domestic and international financial and FX markets. The Bank also looked closely into the impacts of domestic and international risk factors on the financial and FX markets by running the emergency response system during times of heightened market volatility.

Through the COVID-19 Response Task Force set up in late January, the Bank of Korea continuously and carefully monitored developments of the COVID-19 pandemic and the impacts on the domestic and international financial sectors and economies, as well as changes in financial and FX market conditions following the Bank's implementation of market stabilization measures. When market volatility was expected to grow due for example to North Korea's demolition of a joint liaison office (on June 16), the Bank of Korea convened Monetary and Financial Response Task Force Meetings and reviewed the impacts on the financial and FX markets at home and abroad. It also joined the Macroeconomic and Financial Meeting with the relevant institutions and the Financial Risk Assessment Meeting held by the Central Economic Response Headquarters to share perceptions about major pending issues and risk factors related to the domestic macroeconomy and financial stability, and to discuss countermeasures.

Early warning activities regarding potential financial system risks strengthened

The Bank of Korea strengthened preemptive identification of and early warning activities related to potential financial system risks which could be triggered by contraction in the real economy and by heightened volatility in financial and FX markets due to the spread of COVID-19.

In the June Financial Stability Meeting, the Bank examined the real economic and financial shocks from COVID-19 on the domestic financial system. It also forecast how financial stability conditions would change depending on future COVID-19 developments, while looking into risk factors that could emerge under stress scenarios such as a resurgence of COVID-19 and the additional shocks to the real economy as a result. In addition, the Bank of Korea examined the changes in household and corporate debt repayment capacities and the possibility of defaults due to liquidity shortfalls, and reviewed the effects of COVID-19-related policy responses on financial institutions' capital adequacy. The Bank also activated the Financial System Stability Response Task Force consisting of the Bank's relevant departments, to constantly monitor private sector credit supply conditions, any worsening of financial institutions' asset quality, and settlement system stability.

Meanwhile, the Bank of Korea assessed potential risks to the financial system by stepping up constant monitoring of financial institutions, households and corporations. It also examined the management of banks and reviewed their key business conditions, such as asset quality, profitability, and liquidity.

In addition, the Bank also participated in the Supervisory College hosted by major supervisory authorities and discussed the recent operating conditions and risk management of large foreign banks doing business in Korea.

Global financial cooperation strengthened

The Bank of Korea participated in conference calls hosted by international organizations and consultative bodies, such as the BIS, G20 and IMF. Through these meetings, the Bank of Korea promptly identified the impacts of COVID-19 on the global economy and financial markets and the responses of major economies, as well as the repercussions for the domestic economy.

The Bank also continued its efforts to reinforce multi-layered financial safety nets, by for instance building up currency swap networks with major central banks. On July 30, it extended the bilateral currency swap arrangement with the US Federal Reserve, which had been concluded in March, by six months from September 30 this year to March 31 next year. This decision was made in consideration of the lingering uncertainty over COVID-19, although global dollar markets and the domestic FX market remained stable. In addition, the Bank was actively involved in discussions about improving the Chiang Mai Initiative Multilateralization (CMIM), a multilateral currency swap arrangement among ASEAN+3 member countries, contributing to the amendment of the CMIM statement that took effect on June 23. The key points of the amendment are the expansion in the duration of financial support, the establishment of IMF conditionalities, and the enhancement of the cooperative mechanism with the IMF.

Safety and efficiency of payment and settlement systems enhanced

The Bank of Korea continued efforts to enhance the safety and efficiency of the payment and settlement systems.

In light of the recent changes in the payment and settlement environment such as diversification of payment system providers and COVID-19, the Bank of Korea came up with measures to improve the rules of participation in the retail settlement system and BOK Wire+.[62] In preparation for a rise in the number of participating institutions in the payment and settlement systems, the Bank of Korea established a consistent participation policy that is applied to all participants under the general principle of "same business, same risk, same rules" and made amendments to the participation standards to ensure business continuity in times of disaster.

62) In June 2020, the rules of participation in the retail payment system were improved, and improvements to BOK Wire+ will be decided by the Monetary Policy Board and then implemented in September.

The Bank devoted efforts to ensure smooth domestic implementation of the Principles for Financial Market Infrastructures (PFMI)[63] and other international standards in the field of payment and settlement. The Bank examined the Korea Financial Telecommunications and Clearings Institute's compliance with the PFMI and cyber-risk response framework in operating its electronic banking network, checks clearing service, interbank funds transfer system and open banking system. The Bank is planning to provide recommendations on areas that are identified as needing improvement.

Meanwhile, with respect to the spread of COVID-19, the Bank of Korea strengthened cooperation with institutions operating payment and settlement systems (the Korea Exchange, the Korea Securities Depository, and the Korea Financial Telecommunications & Clearings Institute) to ensure seamless operation of major payment and settlement systems. The Bank, meanwhile, strengthened the examination of the response systems and the settlement risk management statuses of participants, such as banks and securities companies.

In addition, the Bank is preemptively reviewing technological and legal requirements for the adoption of central bank digital currency (CBDC) to cope with future changes in the payment and settlement environment which could increase the need for CBDC adoption. The Bank is also carrying out research to set up and test a pilot system.

63) Following the global financial crisis, a need was identified to expand over-the-counter derivatives market infrastructures and strengthen the international standards for the operation of financial market infrastructures. Accordingly, the BIS Committee on Payments and Market Infrastructures (CPMI), jointly with the International Organization of Securities Commissions (IOSCO), integrated the existing international standards, and in April 2012 they were established as the new international standards for payment and settlement. CPMI-IOSCO has enacted additional international standards as supplementary guidelines for PFMI compliance, including its *Guidelines on cyber resilience for financial market infrastructures* (Jun. 2016), *Recovery of financial market infrastructures* (Jul. 2017) and *Resilience of central counterparties (CCPs): Future guidance on the PFMI* (Jul. 2017).

Box II-1.

The Bank of Korea's Financial Market Stabilization Measures through a Special Purpose Vehicle (SPV) to Manage Purchases of Corporate Bonds and Commercial Paper

As the spread of COVID-19 weighed on economic activities, corporate funding conditions in the financial markets worsened significantly, with corporate liquidity conditions deteriorating and credit risk aversion increasing in major economies. In response, major central banks actively provided support for corporate bond and CP markets.

In Korea as well, corporate funding conditions worsened, with credit spreads on corporate bonds widening greatly over concerns about weak corporate performance. Thanks to active policy measures taken by the government[1] and the Bank of Korea, the issuance of prime corporate bonds and commercial paper in the markets has increased since May, but credit risk aversion still remains heightened with persistently high credit spreads on subprime bonds. Under these unprecedented conditions due to the spread of COVID-19, the Bank of Korea set up and began providing support to a Special Purpose Vehicle (hereinafter SPV) designed to purchase corporate bonds and CP, including low-rated ones, in cooperation with the government and a state-run bank (Korea Development Bank) in order to mitigate corporate funding difficulties.

The SPV was launched on July 14 after completing its incorporation registration.[2] The Bank of Korea Monetary Policy Board decided on July 17 to finance the SPV (up to 8 trillion won) in accordance with Article 80[3][4] of the Bank of Korea Act and made its first loan worth 1.78 trillion won to the SPV on July 23. From July 24, the SPV started to purchase corporate bonds and CP.

(Support measures)

The SPV works to stabilize the financial markets with the government providing financial resources for loss absorption, the Bank of Korea providing liquidity, and the state-run bank taking

1) They include the Bond Market Stabilization Fund (20 trillion won), support for the issuance of corporate bonds for companies affected by COVID-19 (through primary collateralized bond obligations (P-CBOs), 6.7 trillion won), and a quick bond takeover program and support for conversion issue of corporate bonds by the Korea Development Bank (4.1 trillion won).

2) The corporation is a limited company with the official name of Corporate Liquidity Assistance Agency Co., Ltd.

3) According to Article 79 of the Bank of Korea Act (Restrictions on transactions with the public), the Bank of Korea shall not make loans to or purchase the obligations of juridical persons or individuals other than banking institutions, but when severe impediments arise to obtaining funds from financial institutions or when there is a strong likelihood of their arising, the Bank of Korea may render credit to any for-profit enterprises such as SPVs, in accordance with Article 80 (Credit to for-profit enterprises).

4) Although the prime corporate bond and CP markets have shown signs of gradual improvement, companies with low credit ratings have gone through continuous financing difficulties due to the sluggishness of the subprime bond market. Also, despite banks' sharp increase in corporate lending, it is not expected to fully meet corporate funding demand as a substitute for direct financial markets due to growing corporate credit risks if the effects of COVID-19 are prolonged. In light of all these factors, we determined that the current situation is subject to "the case where there is a strong likelihood of the arising of severe impediments to financing from financial institutions" under Article 80 of the Bank of Korea Act.

charge of detailed operations.[5)]

Looking at establishment and financing structure, the SPV, set up as a subsidiary of Korea Development Bank, consists of a total of 10 trillion won: 1 trillion won in SPV investment from KDB, 1 trillion won in subordinated loans from KDB and 8 trillion won in primary loans from the Bank of Korea.

The Board of the SPV makes investment decisions but is obliged to keep the Investment Management Committee[6)] as its advisory body. The SPV will commission KDB to select investment targets and carry out investment.

Regarding credit market support measures in major economies, the ECB and the Bank of Japan made direct purchases of credit securities (corporate bonds and commercial paper) as they are allowed to do so by law. The US Federal Reserve and the Bank of England, however, chose to provide loans to SPVs and let them purchase credit securities since it is impossible for the US Federal Reserve to directly purchase them by law and there are no legal provisions for the Bank of England with regard to this matter.

(Targets and other conditions)

As it aims at supplying liquidity to the real sector and alleviating corporate funding problems, the SPV will mainly purchase corporate bonds and commercial paper issued by non-financial institutions.[7)]

The Bank of Korea stipulated other conditions for the loans to ensure that the SPV serves its purpose of liquidity provision for the smooth operation of the corporate bond and CP markets and that its losses are minimized.[8)] First, to prevent support from being directed only to certain companies and to ailing businesses, it is decided that the ceiling of purchases for each firm and business sector[9)] is limited to 2% and 3%, respectively, out of the total support amount and that companies with an interest coverage ratio of less than 100% for two consecutive years (based on pre-COVID-19 levels) are excluded from purchasing targets.

In addition, the guidelines for proportions of asset purchases by credit rating in the portfolio are presented and must be adhered to in order to minimize the SPV's losses. When losses are expected during operation, the SPV must consult with the Bank of Korea on its future operational direction. The proportions of asset purchases by credit rating are set in overall consideration of Korea's corporate bond and CP market

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5) The SPV is scheduled to be run for four years from its establishment (six months for purchases, three years for holding assets, and six months for resolution).

6) The Investment Management Committee provides support such as establishing the investment guideline, and is composed of five members in total: one each nominated by the Ministry of Economy and Finance, the Financial Services Commission and the Bank of Korea, one private sector expert nominated by Korea Development Bank (approval from other institutions required), and the Korea Development Bank vice chairman.

7) Bonds issued by financial institutions are excluded from purchasing targets as financial institutions have their own funding and financial risk management capabilities. However, corporate bonds and CP issued by credit-specialized financial institutions will be purchased pursuant to other programs if it is necessary to secure capacity for supporting SMEs and small business owners in response to COVID-19 and to stabilize the market for bonds issued by credit-specialized financial institutions.

8) As a safeguard against loans, the total assets held by the SPV are set as collateral.

9) This is determined based on the enterprise groups designated as those subject to the limitations on mutual equity investment by the Fair Trade Commission.

structure and the aim of providing liquidity to the overall market. Accordingly, the SPV's portfolio should not deviate greatly from more than 30% of AA-rated bonds (including A1-rated ones), around 55% of A-rated bonds (including A2-rated ones), and less than 15% of BBB-rated or below bonds (including A3-rated ones). The SPV can also buy non-investment grade bonds only if they were temporarily downgraded[10] from investment grade due to COVID-19. As of the end of August, the SPV purchased corporate bonds and CP worth 1.055 trillion won.[11]

Range of corporate bond and CP targets by credit market support programs in Korea

	Investment grade			Non-investment grade
	Prime	Subprime		
Corporate bonds	AA	A	BBB	BB
CP	A1	A2	A3	B
Bond Market Stabilization Fund	O	Limited purchases[1]		
Support for bond refinancing and purchases through state-run banks	O	O		
Quick bond takeover[2]		O	O	
P-CBO[2]	O	O	O	Limited purchases
SPV	O	O	O	Limited purchases[3]

Notes: 1) Limited to bonds rated up to A+ (corporate bonds only) issued by credit-specialized financial companies and fallen angels.
2) Corporate bonds only.
3) Limited to bonds rated up to BB- (corporate bonds only) issued by fallen angels.

In addition, the SPV is required to make sincere efforts[12] to repay the Bank of Korea loans and actively cooperate with the Bank when it examines and monitors the SPV's operations and finances pursuant to Article 80 of the Bank of Korea Act.[13]

Ceiling and conditions of Bank of Korea loans to SPV

	Major details
Ceiling	Within 8 trillion won[1]
Interest rate	Bank of Korea Base Rate + certain level of spread[2]
Period	Within a year from the date when loans are extended
Collateral	Total assets of SPV
Other conditions	The ceiling of purchases for each firm and business sector is limited to 2% and 3%, respectively, of the total support amount.
	Companies with an interest coverage ratio[3] of 100% or below for two consecutive years are excluded from purchasing targets.
	The proportions of bonds in the portfolio for various credit ratings are decided in accordance with set guidelines.[4]
	The SPV should make efforts for early repayment of BOK loans.
	The SPV should actively cooperate with the BOK in examining and monitoring its operations and finances in accordance with Article 80 of the BOK Act.

Notes: 1) The loans are extended four times in total based on capital calls upon the SPV's request.
2) The difference between the 5-day average Monetary Stabilization Bond (1-year) yield before loan extension and the BOK Base Rate; if the value is less than 0, 0 is used.
3) Based on pre-COVID-19 levels.
4) Over 30% AA-rated, around 55% A-rated, and less than 15% BBB-rated or lower.
Source: Bank of Korea.

10) This refers to corporate bonds issued by companies whose credit ratings were BBB or higher before April 22, 2020, and were downgraded to BB thereafter.
11) Regarding the composition of purchased assets by credit rating, prime AA-rated bonds account for 240 billion won (22.7%) while subprime bonds with credit ratings of A and below account for 815 billion won (77.3%).
12) If the SPV's operational size is reduced due to repayment and sales of corporate bonds and CP, it must repay the BOK loans early, even if prior to maturity.
13) If there is a possibility that the principal payment of corporate bond and CP issuers could be delayed and if incidents that could gravely affect the business and assets such as the start of a rehabilitation process take place or are expected to occur, the SPV must notify the Bank of Korea immediately. Along with this, the Bank of Korea can also assess the risks of individual corporate bonds, CP and the portfolio as a whole.

The SPV's financing structure and establishment of other conditions for and collateral against loans are expected to act as a safety net to minimize the Bank of Korea's losses. Central banks in major economies have also set the government's first loss ratio or have received government guarantees when providing support to their credit markets. For the US Federal Reserve, the US government is taking first losses of 10-33% in the form of SPV equity investment, and in the Bank of England's case, the UK government has provided a full guarantee for losses. However, the ECB and the Bank of Japan purchase credit securities without any government guarantees.[14)]

14) The ECB's purchasing of corporate bonds and CP without government guarantees is assessed as reflecting the institutional feature that no single administrative body exists in the euro area. Nevertheless, euro area countries participate in ECB policymaking and share the consequent profits and losses, which can be seen as a partial substitution for government guarantees.

Ⅲ

Future Monetary Policy Directions

1. Growth and Price Forecasts[64)]

The current outlook is based on the assumption that the global spread of COVID-19 will unfold differently from country to country before subsiding gradually after mid-next year, and that the recent domestic resurgence will last for a period similar to the outbreak seen early this year, with local outbreaks occurring sporadically thereafter.

Domestic economy to improve modestly as recovery weakens

GDP growth rates for this year and the next are forecast to be -1.3% and 2.8%, respectively.[65)] With fiscal policy set on an expansionary course, the slump in exports will ease, but the recovery of private consumption will be limited due to the domestic resurgence of COVID-19.

By sector, the recovery in private consumption is forecast to be slower than expected, since a prolonged COVID-19 pandemic is likely to delay improvements in household income conditions and consumer sentiment. Delayed improvements in employment conditions and business conditions of sole proprietors are expected to result in low household incomes, and it is difficult to expect a rapid recovery in consumer sentiment, due to the recent growing concerns about the resurgence of COVID-19. Avoidance of face-to-face services and constraints on overseas travel stemming from the pandemic are likely to work to limit recovery in private consumption for a considerable time. However, government support measures and an increase in savings in line with the contraction in consumption[66)] are expected to have positive effects on private consumption in the future.

Facilities investment is expected to sustain its growth from the second half of this year on, primarily due to investment in the IT sector, and it is projected to increase at a faster rate next year, as the non-IT sector recovers. The IT sector is expected to continue its improvement mainly in semiconductor equipment, although the risk of global uncertainty still remains. The non-IT sector will remain sluggish this year due to the worsening business conditions caused by COVID-19, but it is expected to recover next year thanks to replacement of old equipment and new investment in some industries. Intellectual property products investment is projected to continue its solid upward trend, as R&D investment is forecast to show sound growth thanks to government tax support and increased investment in non-face-to-face industries. Construction investment is expected to decline in the second half of the year due to the sustained weakness in

64) Based on the Bank of Korea's 「Economic Outlook Report」 released on August 27, 2020.

65) Under the positive scenario—in which the world economy returns to the pre-COVID-19 level in the first half of next year, with the domestic resurgence of COVID-19 being contained sooner than forecast in the basic scenario and the global spread being gradually contained from early next year on—GDP growth rates for this year and the next are forecast to be -0.9% and 3.4%, respectively. These figures would be -2.2% and 1.2%, respectively, under the negative scenario, in which the global economy returns to the pre-pandemic level the year after next, with the domestic resurgence of COVID-19 continuing until winter and the global spread being contained gradually at the end of next year or later.

66) Improvement in consumer sentiment following an increase in savings resulting for instance from declines in face-to-face services and overseas travel could contribute to recovery in private consumption.

building construction and early execution of the government budget in the first half.

After the second half of this year, exports of goods are projected to recover gradually as major countries resume their economic activities, though the pace of improvement is expected to be slow due to the continued spread of COVID-19. The current account surplus for this year is expected to narrow compared to that of last year, as a result of a decrease in the goods account surplus driven by shrinking world trade triggered by the spread of the pandemic.

There is a high level uncertainty surrounding the growth path. The upside risks to growth include early development and supply of a vaccine and treatments for COVID-19, faster growth of the Chinese economy, and government policies to stimulate the economy. Among the downside risks are a domestic and global resurgence of COVID-19, a delay in the semiconductor industry's recovery, and increasing tensions between the United States and China.

Table III-1. Economic growth outlook[1)2)]

(%)

	2019	2020			2021^e		
	Year	H1[3)]	H2^e	Year^e	H1	H2	Year
GDP	2.0	-0.7	-1.8	-1.3	2.3	3.2	2.8
Private consumption	1.7	-4.4	-3.4	-3.9	4.0	3.6	3.8
Facilities investment	-7.5	5.6	0.9	2.6	4.5	7.8	6.2
Intellectual property products investment	3.0	3.3	3.0	2.9	3.0	4.0	3.5
Construction investment	-2.5	1.7	-3.1	-0.7	-2.6	1.7	-0.4
Goods exports	0.5	-2.9	-5.6	-4.5	5.4	4.2	4.8
Goods imports	-0.8	-0.9	-2.5	-1.8	6.3	5.6	5.9

Notes: 1) Year-on-year.
2) Figures are the forecast as of August 2020.
3) Reflects second quarter preliminary figures (released on September 1).
Source: Bank of Korea.

Inflation forecast to be in the lower- to mid-0% range in 2020

Consumer price inflation is forecast to record 0.4% this year, the same as last year. The recent rise of international oil prices and the supply disruptions for some agricultural products due to torrential rains are exerting upward pressures. However, international oil prices have remained far lower than those seen last year, and demand-side inflationary pressures have remained weak. Consumer price inflation is expected to pick up next year, albeit at a moderate pace, as economic conditions gradually improve and the impacts of (year-on-year) declines in international oil prices dissipate. Core inflation excluding food and energy prices is forecast to record 0.4% this year and 0.8% next year.

A look at various factors affecting prices shows that, in terms of overseas factors, international commodity prices have rebounded, led by crude oil and nonferrous metals from after the second quarter, due to the resumption of economic activity in major countries. Going forward, international commodity prices are expected to show a moderate pace of increase, but there remain extremely high uncertainties surrounding COVID-19 developments. In terms of domestic factors, demand-side inflationary pressures have weakened, while the rate of wage growth is forecast to be significantly lower than that in the previous year, influenced for instance by sluggishness in economic activity triggered by the spread of COVID-19. Regarding other factors, supply disruptions for vegetables and fruits due to recent torrential rains are forecast to exert upward pressures on agricultural product prices for some time. Concerning government policies, strengthened social-welfare policies related to education and health care are expected to continually put downward pressures on inflation, and the extension of the individual consumption tax cut and reductions in some public utility fees are likely to work as factors pulling inflation further down. Recent increases in leasehold *(jeonse)* deposit prices and monthly rents (based on new contracts) are forecast to work as factors speeding up the pace of growth in housing rental fees for some time.

There is a mix of both upside and downside risks to the price path. Upside risks to prices include an accelerated rise in agricultural, livestock and fishery product prices due to worsening weather conditions, and stronger economic improvements due to expansionary macroeconomic policy. Among the downside risks are an aggravated economic slowdown with a prolonged pandemic, and declines in international oil prices owing to delayed recovery of global oil demand.

Table III-2. Inflation outlook[1)2)]

(%)

		2019	2020			2021^{e}		
		Year	H1	H2^{e}	Year^{e}	H1	H2	Year
CPI inflation		0.4	0.6	0.3	0.4	0.7	1.3	1.0
Core inflation	CPI excluding food & energy	0.7	0.4	0.4	0.4	0.6	1.1	0.8
	CPI excluding agricultural products & oils	0.9	0.6	0.7	0.7	0.8	1.2	1.0

Notes: 1) Year-on-year.
2) Figures are the forecast as of August 2020.
Source: Bank of Korea.

2. Major Considerations

Looking ahead, the Bank of Korea will operate its monetary policy while closely watching the impacts of uncertainties at home and abroad on the growth and inflation forecast paths, and devoting attention to financial stability as well. In this process, it will also carefully monitor the impacts of the spread of COVID-19 at home and abroad, ongoing uncertainties surrounding the international trade environment, domestic and international financial market conditions, and household lending and housing market conditions.

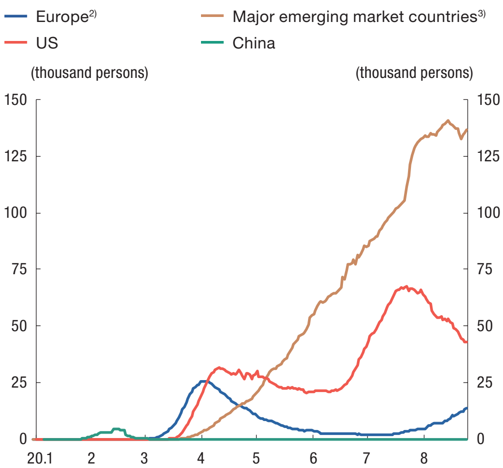
Impacts of the domestic and global spread of COVID-19

The world economy is expected to show moderate recovery while exhibiting variation depending upon the patterns of economic reopening in individual countries. However, uncertainties related to the global economy are still high, since the spread of COVID-19 has shown little sign of slowing. In the United States, the spread of COVID-19 has recently been contained somewhat, but the number of new cases per day still remains high. The euro area and Japan have seen signs of a resurgence of COVID-19. The rapid spread of the virus continues in India and other emerging market countries. As a result, improvement in economic activity could weaken in the future due to cross-border lockdown measures and constraints on economic activity.

In addition, the Korean economy has somewhat improved on eased sluggishness in exports and consumption, but uncertainties related to the economic outlook have increased further due to the resurgence of domestic infections. The improvement in private consumption could be slower than expected, especially for consumption of face-to-face services and overseas expenditures of resident households, in line with the recent resurgence of COVID-19 and the consequent strengthening of social distancing measures at home. Exports could see delayed improvement given the high uncertainties surrounding the global economy.

Since future real economic developments could vary greatly, depending both on the situation regarding the resumption of economic activity in line with domestic and global COVID-19 developments and on the consequent response measures, the extent and effects of the virus's spread must be closely monitored.

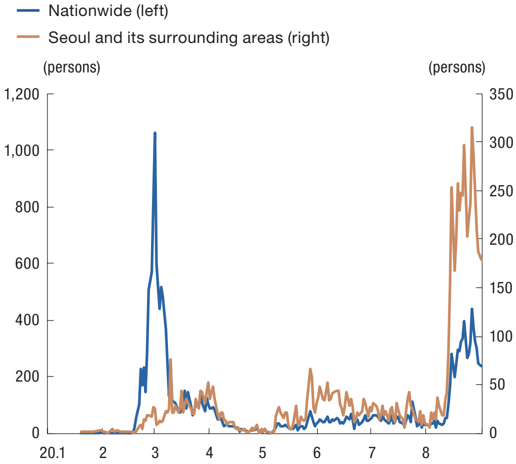
Figure III-1. Global spread of COVID-19[1)]



Notes: 1) Daily new confirmed cases by region (based on 7-day moving averages).
2) Germany, Spain, the UK, Italy and France.
3) India, Brazil, Russia, Chile, Peru, Argentina, Mexico, South Africa and Turkey.

Source: Our World in Data.

Figure III-2. Domestic spread of COVID-19[1)]



Note: 1) Daily new confirmed cases by administrative region (based on press release date).

Source: Korea Disease Control and Prevention Agency.

Ongoing uncertainties surrounding the international trade environment

Uncertainties still remain related to the US-China trade dispute and the pace of recovery in global trade.

The US-China dispute is worsening, due mainly to the US sanctions against Chinese corporations. The US government ordered a Chinese IT company to sell its application business in the United States,[67)] on the basis of concern about leakage of private information. China opposed the move, calling it a violation of market principles. The United States' checks on Chinese IT companies are expanding beyond hardware companies to include software companies[68)] as well. In addition to the trade-related dispute, the two countries are coming into conflict in the political and diplomatic areas, as seen in the shutdowns of consulates.[69)] Therefore, the dispute between the two countries is unlikely to be eased in the short term.

Concerns remain about a delayed recovery in global trade. Goods trade has been slow to recover as demand for imports from major advanced countries and emerging market countries has contracted dramatically, and sluggishness in investment continues. Meanwhile, the slowdown in service trade has been sustained due to the trade slowdown and immigration controls of individual countries. Going forward, global trade is expected to improve gradually, led by goods trade, but there still are high uncertainties surrounding global trade conditions, due for example to the resurgence of COVID-19.

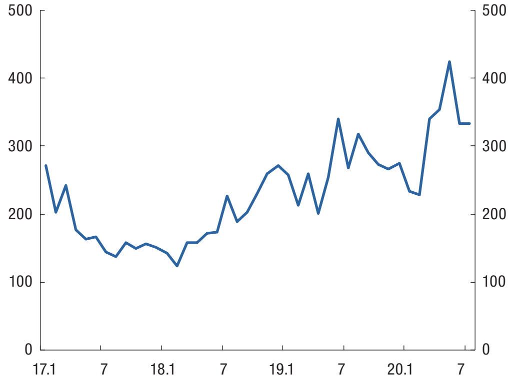
The global economy is expected to be affected significantly by the US-China trade dispute and the pace of recovery in global trade, and in this regard, related developments will need to be watched closely.

67) President Trump signed an executive order (on August 14) forcing China's ByteDance to sell its US mobile application (TikTok) business within 90 days and delete all information collected from US users.

68) President Trump signed an executive order (on August 6) forbidding the use of ByteDance's application (TikTok) and Tencent's application (WeChat) in the United States. He also noted that he was considering banning Alibaba, the biggest e-commerce company in China (on August 15).

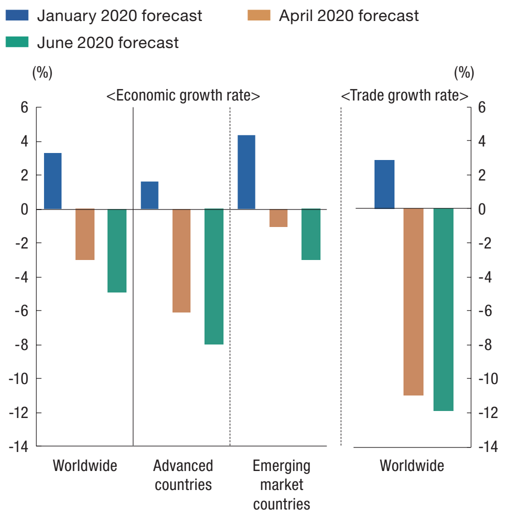
69) China's Consulate-General in Houston was closed down upon a request from the United States (on July 24) and China shut down the US Consulate in Chengdu in response (on July 27).

Figure III-3. Global uncertainty index[1]



Note: 1) Global economic policy uncertainty index.
Source: Economic Policy Uncertainty.

Figure III-4. Economic and trade[1] growth outlooks[2] for 2020



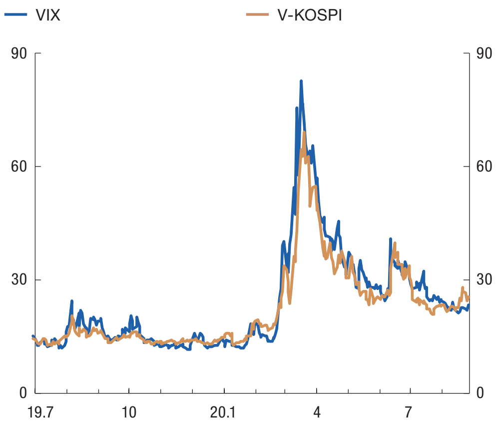
Notes: 1) Goods and services.
2) Outlook at respective point in time.
Source: IMF.

Domestic and international financial market conditions

Concerning the international financial market, risk aversion continues to ease, thanks to higher-than-expected economic indices and corporate performances, and accommodative monetary policies of major countries, despite concerns related to the resurgence of COVID-19 and the US-China trade dispute. As a result, global stock prices remained on the rise and stock price volatility was also low and stable.

The domestic financial market also remained stable overall, influenced by international financial market movements. Stock prices generally remained on the rise due to expectations of global economic recovery, although they have recently fallen significantly again due to concerns related to the resurgence of COVID-19. The Korean won/US dollar exchange rate fell considerably, due mainly to the extension of the currency swap agreement with the US Federal Reserve, and the global weakening of the US dollar.

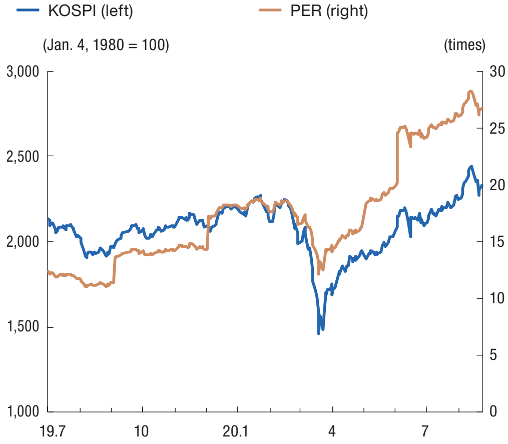
Figure III-5. Domestic and international financial market volatility



Source: Bloomberg.

However, there remain various factors causing domestic and international financial market unease. In the international financial market, there are high uncertainties related to the spread of COVID-19, the evolution of the US-China dispute, and developments of financial and economic conditions of some vulnerable EMEs.[70] Against this backdrop, there is a possibility of the emergence of potential risks which have been built up since the outbreak of COVID-19, such as growth in corporate sector leverage, and the gap between asset prices and real economic indices. Therefore, it is necessary to keep an eye on the related developments. On the domestic front, if recovery in real economic activity is delayed due for example to the resurgence of COVID-19, the volatility of stock prices and other price variables could increase, and credit risks of SMEs, which have been heavily dependent upon the government's financial support measures so far, could rise higher.[71]

Figure III-6. KOSPI and price-earnings ratio



Source: KRX.

Financial markets remain stable overall, but volatility in the financial market could increase frequently, in line with developments of potential risk factors. Therefore, it is necessary to keep a close eye on major price variable trends, foreign investment capital flows, and corporate funding conditions.

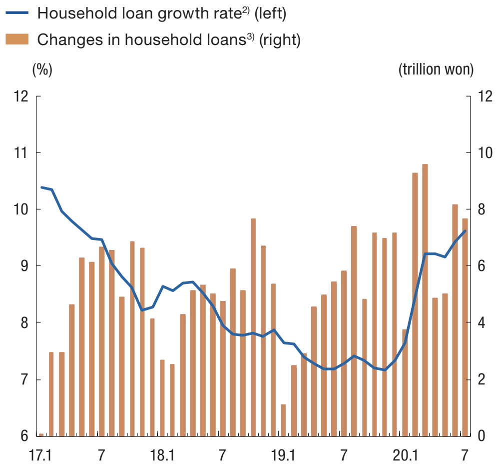
70) There have been ongoing concerns about financial and economic conditions in EMEs, especially in those that are heavily dependent upon external trade and have high fiscal vulnerability. The value of the Brazilian real has plunged since the beginning of this year (-24.6% compared to end-2019, as of August 31), due mainly to the fiscal deficit buildup and the COVID-19 pandemic (second highest in the world in terms of cumulative number of confirmed cases), and the value of the Turkish lira also fell significantly (-18.5%) due to ongoing concern about the foreign exchange sector.

71) As a result, lending standards for corporations are expected to tighten in the third quarter this year (diffusion index for domestic banks' lending standards for SMEs: 23 in Q1 2020 → 7 in Q2 → -10 in Q3, figure for Q3 is a forecast), due mainly to credit quality management and concern about weak debt servicing capacities of vulnerable industries.

Household lending and housing market conditions

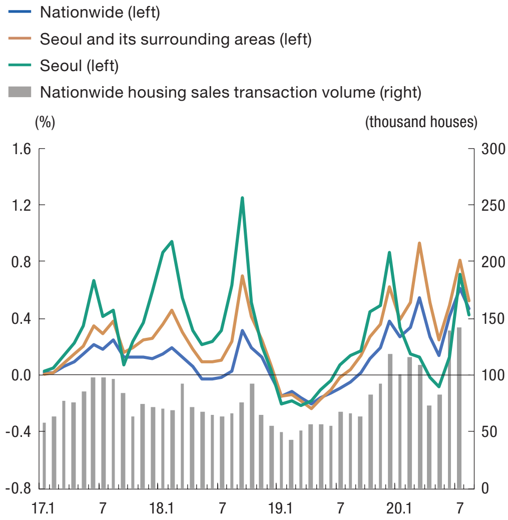
Looking at the recent state of financial imbalances, household lending and housing prices have grown at faster paces again since June, after showing slower growth between April and May. Growth of home mortgage lending slowed somewhat in July, thanks to stronger regulations by the government, but household lending sustained strong growth, as in the preceding month, affected by faster growth in unsecured lending following growing demand for funds related to housing transactions and purchases of new apartments available for sale. Housing prices, which are closely associated with household debt growth, have increased at a faster pace in Seoul and its surrounding areas and in the rest of the country since June, due mainly to high expectations for housing price increases. Since the beginning of August, however, growth in housing prices slowed somewhat, influenced for instance by the government's measures to stabilize the housing market.

Figure III-7. Household loan changes and growth rate[1)]



Notes: 1) Based on deposit banks; including mortgage transfers.
2) Year-on-year.
3) Month-on-month.
Source: Bank of Korea.

Figure III-8. Housing sales price growth rate[1)] and housing sales transaction volume



Note: 1) Month-on-month.
Source: Korea Appraisal Board.

Going forward, inflows of capital into the housing market through for instance household lending could continue. The government's housing-related measures and economic uncertainties following the resurgence of COVID-19 could work to ease expectations for housing price increases and an overconcentration of capital into the housing market. However, given the increase in housing transactions so far, rising leasehold deposit *(jeonse)* prices, and expanded numbers of new apartments for sales or supply in the second half of this year, household lending could maintain strong growth for a considerable period of time. Therefore, continued attention should be paid to the risk of a buildup in financial imbalances, by for instance carefully watching if the overconcentration of capital into the housing market continues.

3. Future Monetary Policy Operational Directions

Base Rate operations

In the future, the Bank of Korea will conduct its monetary policy so as to support the recovery of economic growth and ensure that consumer price inflation can be stabilized at the target level (2.0%) over a medium-term horizon, while also paying attention to financial stability.

The Bank will maintain its accommodative monetary policy stance as domestic economic growth is forecast to be sluggish, influenced by the spread of COVID-19, and as demand-side inflationary pressures are expected to remain weak. In this process, the Bank will closely examine the severity of COVID-19 resurgence, its impacts on the economy and financial sector, and the effects of policy measures taken in response to the pandemic. The Bank will also pay attention to changes in financial stability conditions, such as household debt growth in line with rising housing prices, and the overconcentration of capital into the real estate market.

Enhancement of monetary policy effectiveness

The Bank of Korea will continue its effort to enhance monetary policy effectiveness. To this end, the Bank will closely analyze the channel by which monetary policy is transmitted to the real sector through the financial market, and the actual effects. The Bank will also consider all possible policy instruments, given the ongoing high uncertainties in the policy environment at home and abroad. The Bank will also make continuous efforts to explain in more detail the background behind monetary policy decisions and expected effects to ensure that economic agents can better understand its policy decisions, as the market is paying close attention to domestic and global economic conditions. Moreover, as inflation has hovered well below the target level for an extended period, the Bank of Korea will examine on a regular basis how the inflation target is managed and provide detailed explanations to enhance economic agents' understanding of inflation conditions.

Promotion of financial and foreign exchange market stability

The Bank of Korea will make particular efforts to maintain the stability of financial and foreign exchange markets and seamless credit flows. There is a possibility that the domestic financial and foreign exchange markets could respond sensitively to changes in domestic and international risk factors, such as the developments of COVID-19 and the US-China trade dispute. Going forward, the Bank will continue to closely monitor major price variables in the financial market and flows of capital in the markets. In cases when market volatility increases greatly, due for instance to imbalances in supply and demand conditions of bond and foreign exchange markets and the weakening of the intermediary role of financial markets, the Bank will take appropriate market stabilization measures in a timely manner, if needed.

Maintenance of financial system stability

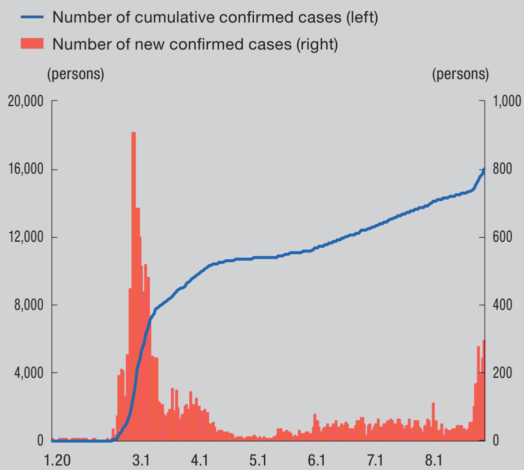
The Bank of Korea will thoroughly monitor changes in domestic and overseas financial and economic conditions and strengthen early warning activities concerning potential risks to the financial system. The Bank will keep a close eye on the impacts of the spread of COVID-19 on the household and corporate sectors, and the effects of the relevant policy response measures on the soundness of financial institutions. If economic recovery is delayed in the future, particularly due to the ongoing spread of COVID-19, risks could emerge in vulnerable sectors. Therefore, the Bank will carefully monitor the relevant developments.

Box III-1.

Examination of Factors Limiting Private Consumption Following Ongoing Spread of COVID-19

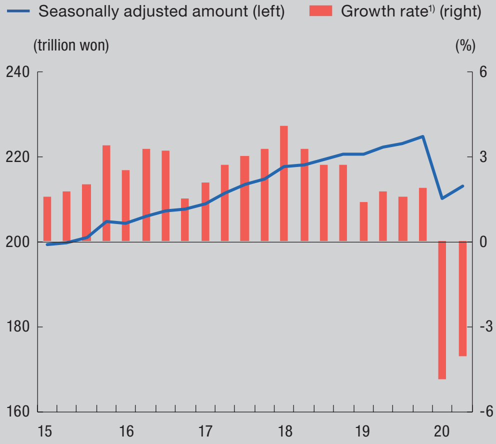
After contracting sharply due to the COVID-19 outbreak in early 2020, private consumption saw its sluggishness easing in the second quarter, backed by government measures and a slowing of the spread of the virus. However, as the global COVID-19 pandemic continues, and the domestic spread of the virus has worsened again recently, there is an increased possibility of slower-than-expected recovery in private consumption. If concerns about a prolongation of COVID-19 continue, contraction in consumption of face-to-face services could continue, thus delaying improvements in employment and income conditions, making it difficult for consumer sentiment to recover rapidly. This section looks at recent trends in private consumption, and examines factors limiting recovery in consumption following a prolongation of COVID-19.

Domestic confirmed cases of COVID-19



Source: Korea Disease Control and Prevention Agency.

Private consumption



Note: 1) Year-on-year.
Source: Bank of Korea.

(Recent private consumption developments)

Private consumption recovered somewhat in the second quarter, after sharply contracting right after the COVID-19 outbreak, but the patterns of recovery differ between consumption of goods and services.

Private consumption developments[1)2)]

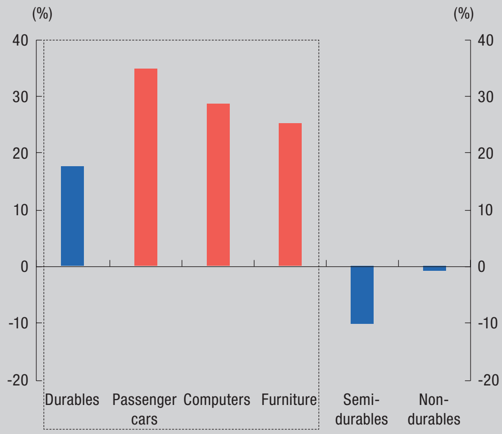
(%)

	2019				2020	
	Q1	Q2	Q3	Q4	Q1	Q2
Private consumption	0.1 (1.4)	0.7 (1.8)	0.4 (1.6)	0.7 (1.9)	-6.5 (-4.8)	1.5 (-4.0)
(Durables)	0.5	-0.5	1.4	4.9	-4.7	18.3
(Semi-durables)	0.8	0.7	-1.7	-2.5	-13.6	11.5
(Non-durables)	1.0	1.7	0.6	0.2	-0.4	-0.4
(Services)	0.2	0.7	0.7	0.6	-7.9	-0.7

Notes: 1) Seasonally adjusted quarter-on-quarter growth rates; figures in ( ) are year-on-year growth rates.
2) A look at domestic consumption spending of households by type (in 2019, on a nominal basis) shows that durables account for 10.1%; semi-durables, 9.4%; non-durables, 21.8%; and services, 58.7%.
Source: Bank of Korea.

Goods consumption rebounded significantly in the second quarter, influenced for instance by the government support measures.[1] A look at goods by type (for retail sales) shows that growth in consumption of durables was led by a large increase in sales of passenger cars following the individual consumption tax cut and the launch of new models, and by a significant increase in sales of computers and furniture in line with the expansion of online education and teleworking. Consumption of semi-durables saw a year-on-year decline due to limited recovery, while that of non-durables maintained relative stability.

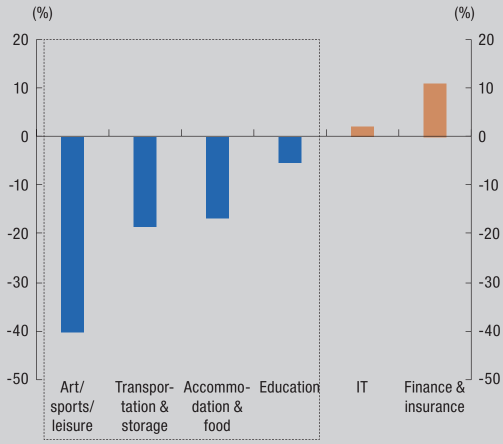
Retail sales[1)]



Note: 1) Year-on-year growth rates; as of Q2 2020.
Source: Statistics Korea.

Consumption of services recovered somewhat, but the pace of recovery was more modest than that of goods.[2] By sector (on a service production basis), consumption of accommodation & food services, art/sports/leisure-related services, and transportation & storage services declined significantly after the COVID-19 outbreak, and then rebounded but remained considerably below that for the same period of the preceding year. Meanwhile, consumption of finance & insurance services showed steady growth.

Services production[1)]



Note: 1) Year-on-year growth rates; as of Q2 2020.
Source: Statistics Korea.

Meanwhile, overseas expenditures of resident households contracted sharply[3] due to a large drop in overseas travel caused by concern about the virus and cross-border lockdowns.

(Factors limiting recovery in private consumption)

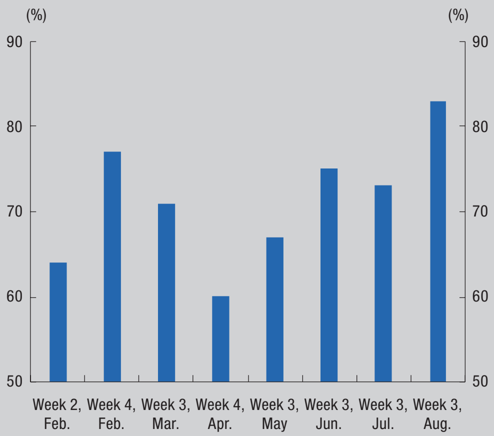
Since the beginning of the second quarter, sluggishness in private consumption has eased due to the relaxation of restrictions on economic activity. However, if the spread of COVID-19 is pro-

1) The government's measures included the provision of emergency disaster relief funds, an individual consumption tax cut on passenger cars, and refunds on home appliance purchases.
2) The Service Industry Activity Index fell substantially in February and March (month-on-month; -3.5% in February, -4.4% in March), and then showed modest growth since April (0.4% in April, 2.4% in May, 2.2% in June).
3) The growth rate for the number of residents traveling overseas (year-on-year) saw a great decline from -52.9% in Q1 2020 to -98.4% in Q2.

longed, persistent sluggishness in consumption of face-to-face services, delayed improvement in employment and income conditions, and uncertainties related to increased alternative consumption could work to limit recovery in private consumption going forward.

As the COVID-19 pandemic is unlikely to end in the short term and concern about the resurgence continues, aversion to face-to-face services is likely to continue for some time. Clear improvement in this contraction in face-to-face activity is unlikely until health safety is proven thanks to developments of vaccines and cures, even if the restrictions on economic activity are relaxed.

Concern about COVID-19 infection[1)]



Note: 1) Percentages of respondents answering that "I feel very/ somewhat worried that I will be infected with COVID-19."
Source: Gallup Korea.

This could work to limit improvements in employment and income conditions in the future. Major face-to-face services industries, such as accommodation & food, education, and art & sports, have stronger employment inducement effects than other industries. Therefore, they could be faced with a relatively large employment shock. If the development of automation and unmanned technologies gathers pace in an effort to minimize face-to-face contacts and reduce labor costs, this could work to cause further job losses. In addition, self-employment income is likely to remain low for some time due to delayed improvement in consumer sentiment and a sharp decline in the number of foreign tourists.

Employment inducement coefficient[1)]

(persons)

All industries	Industrial products	Services	Accom-modation & food	Education	Art & sports
10.1	6.2	12.8	19.7	15.3	14.1

Note: 1) Number of persons employed per one billion won (in 2018).
Source: Bank of Korea.

Next, the employment and income shocks from COVID-19 could be concentrated on vulnerable groups, such as small self-employed business owners and low-income workers, including service industry workers and temporary daily laborers. Household income increased overall in the second quarter, thanks to a large increase in transfer income, but wage and business income, and that of low-income groups in particular, declined considerably.[4)] If there is a delay in improvement in income conditions of the low-income groups whose propensity to consume is

4) Wage and business income decreased by 5.1% year-on-year for all households in the second quarter of the year, while that for households in the first and second quintiles showed larger decreases, falling by 17.2% and 6.9%, respectively.

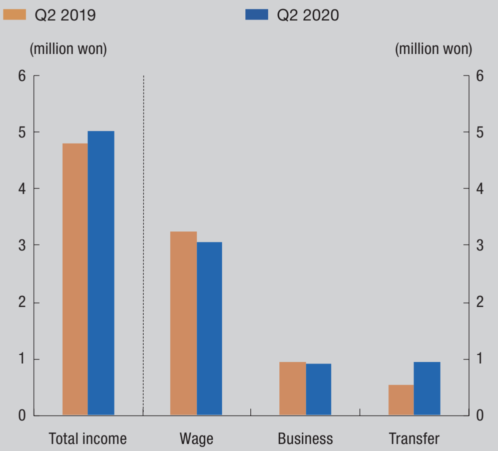
(%)

	First quintile	Second quintile	Third quintile	Fourth quintile	Fifth quintile	Total
Total income[1)]	8.9	6.5	5.6	5.6	2.6	4.8
· Wage & business income[1)]	-17.2	-6.9	-5.3	-4.5	-3.7	-5.1
· Transfer income[1)]	44.9	64.7	86.8	148.1	88.4	80.8

Note: 1) Year-on-year growth rates; as of Q2 2020.
Source: Statistics Korea.

high, this could cause consumption sluggishness to continue throughout the economy. In addition, COVID-19 could work to reduce corporate demand for low-skilled laborers, thereby limiting improvement in the income conditions of vulnerable groups.

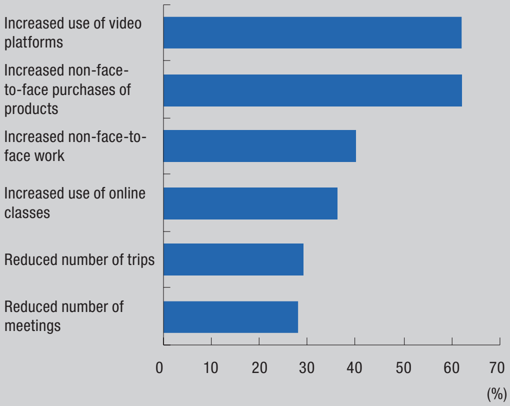
Household income trends[1]



Note: 1) Based on monthly average income per household in the Household Income and Expenditure Survey.
Source: Statistics Korea.

Finally, the extent to which a decline in spending related to face-to-face services and overseas travel is replaced by other goods and services consumption could also affect recovery in private consumption going forward. Since the COVID-19 outbreak, consumption of services which require high face-to-face interactions has declined, while demand for non-face-to-face services including online games and over-the-top (OTT) services[5] has increased, and online purchases[6] have been expanding rapidly. Likewise, consumption of other goods and services as substitutes has increased, but in the short term, delayed improvement in consumer sentiment is likely to limit recovery in total consumption. However, the consequent increase in savings is expected to work positively for future recovery in consumption.

Expected changes in lifestyle since COVID-19 outbreak[1]



Note: 1) Percentages of respondents answering that current changes in daily life would be maintained in the future as well.
Source: HanKook Research's Survey on Awareness of COVID-19.

(Implications)

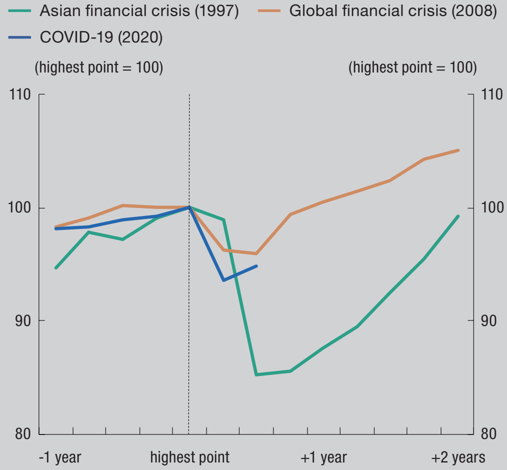
As shown earlier, it appears that there will be considerable potential factors causing restrictions to the private consumption path in the future, due to a prolongation of COVID-19. As social-distancing rules have become the norm due to concern about the resurgence of COVID-19, rapid recovery in the face-to-face services sector seems unlikely. The consequent sluggishness in service industry conditions could worsen employment and income conditions of vulnerable groups, thus acting as a structural factor causing sluggishness in consumption.

5) Over-the-top services refer to services like YouTube and Netflix that provide media contents such as TV shows and movies through the Internet.

6) The growth rate of non-store retail sales (year-on-year) increased by a larger amount from +10.6% in Q4 2019 to +16.7% in Q1 2020, and to +20.5% in Q2.

In light of this, as private consumption recovers slower than expected, it is forecast to take a considerable time to return to the pre-pandemic level.[7)] However, the government's income and consumption support measures and increased savings following a contraction in consumption are expected to contribute to recovery in private consumption going forward.

Patterns of recovery[1)] in private consumption[2)] during past crises



Notes: 1) The highest points were seen in Q3 1997 during the Asian financial crisis, Q3 2008 during the global financial crisis, and Q4 2019 during the COVID-19 crisis.
2) Seasonally adjusted.
Source: Bank of Korea.

7) Looking at past cases, private consumption recovered relatively quickly to the pre-crisis level during the global financial crisis period, while it took longer than two years for private consumption to recover to the pre-crisis level during the Asian financial crisis period, as the impacts of shocks to employment and income lasted for a considerable time.

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Monetary Policy Report

Publisher	Lee, Juyeol
Editor	Lee, Sang Hyeong
Published by	Bank of Korea
	67, Sejong-daero, Jung-Gu, Seoul, 04514, Korea
	www.bok.or.kr/eng
Published on	October 23, 2020
Printed by	Jeil Printech Co., Ltd.

This material is posted on the web-site of the Bank of Korea
(http://www.bok.or.kr/eng > Monetary Policy > Monetary Policy Reports)

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ISSN 2005-2707