ISSN 2005-2707

Monetary Policy Report

2018. 7

THE BANK OF KOREA

THE BANK OF KOREA

Monetary Policy Report

2018. 7

The Bank of Korea sets and implements its monetary and credit policy in order to contribute to the sound development of national economy by pursuing price stability and paying attention to financial stability.

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 July 2018 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 April 2018 through the date of the Monetary Policy Board meeting for monetary policy decision-making in July 2018.

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.

July 2018

Lee, Juyeol
Governor
the Bank of Korea

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).

o **(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.

o **(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.

o **(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.

Contents

List of Tables

List of Figures

List of Boxes

■ Executive Summary

[Monetary Policy Operating Conditions]

1 A look at financial and economic conditions in Korea and abroad between April and July of 2018 finds the following. The global economy sustained its solid growth. The United States continued to show steady growth, thanks to improvements in employment conditions and to its expansionary fiscal policies. The euro area and Japan went through temporary slumps, due to factors such as abnormal weather conditions, but subsequently showed modest recoveries. China also continued its stable growth.

Economic growth in major economies[1]

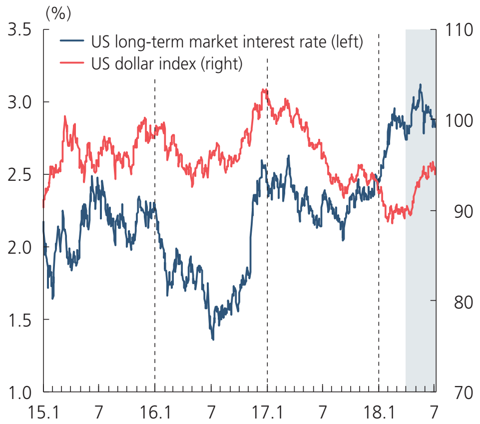
(%)

	2015	2016	2017				2018
			Year	Q2	Q3	Q4	Q1
US	2.9	1.5	2.3	3.1	3.2	2.9	2.0
Euro area	2.1	1.8	2.4	3.0	2.9	2.8	1.5
Japan	1.4	1.0	1.7	2.1	2.0	1.0	-0.6
China	6.9	6.7	6.9	6.9	6.8	6.8	6.8

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

In the international financial markets, long-term market interest rates in major countries showed repeated fluctuations, due to a mix of upside factors such as the possibility of the acceleration of interest rate hikes by the US Federal Reserve and downside factors including political unrest in the euro area and the deepening of the trade conflict between the US and China. Stock prices in advanced countries moved somewhat differently from those in emerging market countries. In contrast to their fluctuations in advanced countries, in line with upside and downside factors such as the improvements in US economic indicators and the strengthening protectionism, stock prices in EMEs fell sharply due to the effects of a stock price decline in China in consequence of the US-China trade dispute, and to concerns about financial unrest in Argentina and Brazil. The US dollar reversed rapidly to a trend of strengthening, affected by the continuing US economic buoyancy.

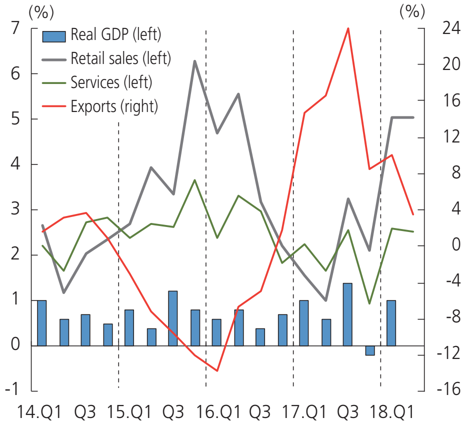
US long-term market interest rate[1] and US dollar index[2]



Notes: 1) Treasury bond (10-year) yields.
2) The measure of the value of the US dollar relative to a basket of foreign currencies (EUR, JPY, GBP, CAD, SEK, CHF); March 1973=100.
Source: Bloomberg.

2 The domestic economy continued its solid growth. In the first quarter of this year it emerged from its temporary negative growth of the fourth quarter of last year and recorded a 1.0% quarter-on-quarter growth rate. Despite the ongoing adjustments in facilities and construction investment the domestic economy continued to grow steadily in the second quarter, as consumption and exports showed favorable movements.

Major economic growth indicators[1)2)]

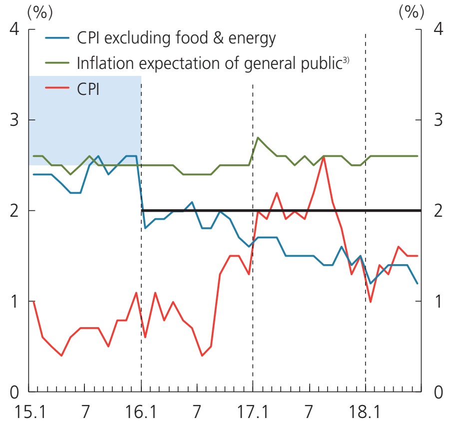


Notes: 1) Rates of growth quarter-on-quarter for real GDP, year-on-year for exports (customs clearance basis), retail sales and services.
2) Statistics Korea's sales index by retail business type and index of services for the second quarter of 2018 based on the averages of April and May's preliminary values.
Sources: The Bank of Korea, Statistics Korea, Korea Customs Service.

3 Consumer price inflation recorded a rate at the mid-1% level during the second quarter, as the paces of increase in prices of agricultural, livestock and marine products as well as petroleum products accelerated. Core inflation remained in the low- to mid-1% range, but the inflation expectations of the general public maintained the mid-2% level.

Housing sales prices began to show horizontal movements in the second quarter, in line with an easing of the rapid rise in prices of apartments being reconstructed in Seoul. The extent of decline in housing leasehold deposit prices expanded, on the effects of a large-scale increase in the number of new apartment units available.

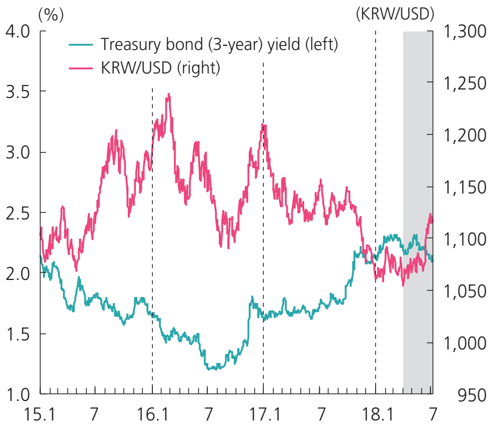
CPI inflation[1)2)]



Notes: 1) Year-on-year.
2) The shaded area indicates the medium-term inflation target range during the 2013~2015 period, and the bold line the medium-term inflation target set for 2016 onwards.
3) Expectations for the CPI inflation rate one year in the future.
Sources: The Bank of Korea, Statistics Korea.

4 In the domestic financial markets, long-term market interest rates rose until the middle of May, influenced by the rise in US Treasury bond yields, before then reversing to a decline due to factors such as sluggish domestic employment indicators and the unstable political situation in Italy. The Korean won/US dollar exchange rate rose sharply, owing to the strengthening of the dollar in line with the possibility of accelerated interest rate hikes by the US Federal Reserve and with expanded concerns about the US-China trade conflict. Domestic securities investment by foreigners meanwhile increased, led by investment in bonds.

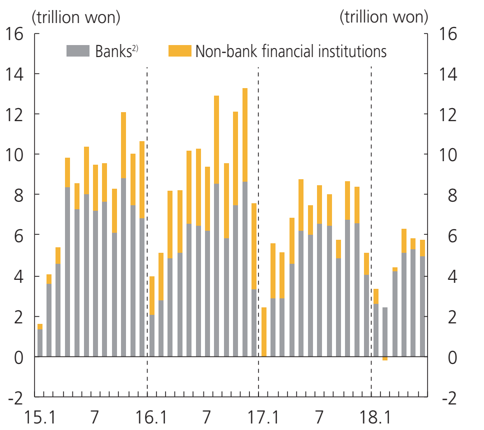
Korean Treasury bond yield and exchange rate (KRW/USD)



Sources: The Bank of Korea, KOFIA.

5 With regard to household lending, the pace of its increase accelerated in the second quarter compared to the first quarter, owing to demand for leasehold deposit funds and for funds related to moving into new apartments. Compared to the second quarter in 2017 it, however, slowed.

Changes in household loans[1)]

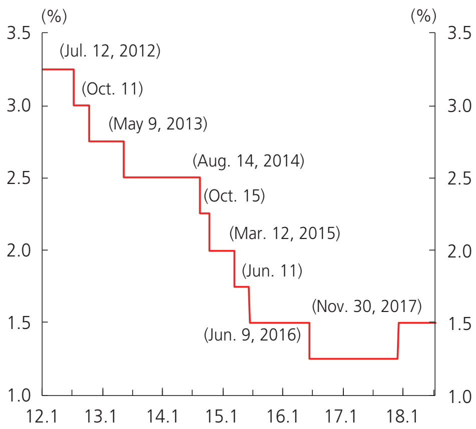


Notes: 1) Month-on-month.
2) Including mortgage transfers.
Source: The Bank of Korea.

[Conduct of Monetary Policy]

6 During the May through July 2018 period the Bank of Korea conducted its monetary policy in an accommodative manner, to ensure that the recovery of economic growth continues and that consumer price inflation is stabilized at the target level over a medium-term horizon. In this process it devoted attention to financial stability as well, and closely monitored changes in domestic and external conditions such as those related to Korea's trade with major countries, changes in the monetary policies of major countries' central banks, the upward trend of household debt, and geopolitical risks. Under this policy stance the Bank of Korea held the Base Rate at a level of 1.50% per annum throughout the period.

Bank of Korea Base Rate[1)]



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

7 A detailed look at the monetary policy decisions during this period, and the backgrounds behind them, follows:

First, at the May 2018 meeting of the Monetary Policy Board the Bank maintained the Base Rate at its 1.50% per annum level. This was a decision made in consideration of the fact that domestic and external uncertainties were still high and demand side inflationary pressures not strong, although it was forecast that the domestic economy would continue its solid growth. Facilities investment had slowed somewhat, but it was judged that the domestic economy was continuing its solid growth as consumption and exports were showing robustness. Employment had been sluggish, however, with the extent of increase in the number of persons employed remaining at a low level. Going forward it was expected that growth would be generally in line with the path forecast in April even though investment would slow, as consumption would continue its steady increase and exports their buoyant flows. Consumer price inflation had picked up to a level in the mid-1% range, due to increases in agricultural product prices, and was foreseen remaining at this level for some time before then gradually rising from the second half and approaching the target level. Core inflation was also at the mid-1% level, and expected to gradually rise. Meanwhile, the financial markets were generally stable, with the Korean won/US dollar exchange rate fluctuating within a narrow range although long-term market interest rates had risen on the effects of increasing interest rates in major countries. Even though the pace of increase in housing prices had slowed, especially in some parts of Seoul and its surrounding areas, it was deemed necessary to continually watch for any changes in the related risks on the financial stability side, as household lending was still growing more rapidly than in normal years, led by unsecured loans.

In the July meeting the Bank also kept the Base Rate at an annual rate of 1.50%. This decision was reached after consideration of the points that the domestic economy was expected to sustain its solid growth going forward, but that the uncertainties concerning the future growth path were high while the inflationary pressures on the demand side were still not large. Despite the ongoing adjustments in facilities and construction investment, it was judged that the domestic economy was continuing to grow steadily as consumption and exports appeared favorable. Employment remained sluggish, however, with the extent of increase in the number of persons employed sustaining low levels. With regard to the domestic economy going forward, it was forecast that investment would slow but that consumption would continue to increase steadily and exports would also remain favorable. In line with this it was expected that the rate of GDP growth during this year would be 2.9%, slightly lower than the figure forecast in April (3.0%), but that the domestic economy would continue to grow at the level of its potential growth rate. Consumer price inflation, despite a sharp rise in petroleum product prices, would show a rate in the mid-1% range owing to a slowdown in agricultural and livestock product price inflation, and persist at that level before gradually approaching the target level as it picked up due to the impacts of higher oil prices. The core inflation rate had fallen to the lower 1% level in June, but was expected to show a modest upward trend. The volatility of price variables in the domestic financial markets had meanwhile expanded, on the impacts of large changes in the international financial markets. The won/dollar exchange rate had risen to a large extent, under the influence of the dollar's strengthening, while stock prices and long-term market interest rates had fallen substantially due to increased uncertainties abroad related to factors such as the US-China trade dispute. The amount of household lending growth had lessened somewhat, but household loans were still increasing by greater amounts than in normal years and there was judged to be a need to closely monitor developments in this regard.

8 The Bank of Korea continued its efforts for financial and foreign exchange market stability in response to changes in conditions at home and abroad. In May and June it convened meetings of its 「Monetary and Financial Task Force」 immediately after the FOMC meetings, and examined the effects that changes in the US Federal Reserve's monetary policy would have on the financial and foreign exchange markets. Notably, when the Federal Reserve raised its policy rate in June, the Bank closely examined the effects that the widening of the negative gap between Korean and US policy rates would have on the in- and outflows of funds of foreign investors. When the North Korea-US summit meeting was held it monitored the responses to and assessments of financial markets in major countries of the outcomes of the meeting in real time, in collaboration with its overseas representative offices.

The Bank also sustained its efforts for the early identification of potential risks within the financial system. During its June 「Financial Stability Meeting」 it analyzed the conditions related to financial stability in different areas such as household and corporate credit and the asset markets, and examined the financial system's resilience. It also attended the 「Macroeconomic Finance Meetings」, where it analyzed the effects of the Federal Reserve's policy rate hikes while seeking measures for responding together with the government and the supervisory authorities. It in addition examined household debt and the effects of the government measures to control it through meetings of bodies such as the 「Consultative Group for Managing Household Debt」.

[Future Monetary Policy Directions]

9 According to the Bank of Korea's 「Economic Outlook Report」 released on July 12, the domestic economy appears likely to show a growth rate of 2.9% during this year. It is forecast to sustain steady growth even despite slowing investment, as exports will continue their favorable flows in line with the buoyancy of the world economy and consumption will also improve. The domestic economy is foreseen growing at the level of its potential growth rate next year as well, as exports and consumption continue to increase. The upside and downside risks to the future path of growth are mixed. The major upside risks include the effects of more expansionary fiscal policies and accelerated paces of growth in investment in major countries, as well as improvements in domestic demand conditions thanks to the

government's economic stimulus measures. Among the downside risks are those of a worsening of export conditions in consequence of expanded protectionism, and of increased financial market volatility due to accelerated monetary policy normalizations in major countries.

Economic growth outlook[1)]

(%)

	2017	2018e			2019e		
		Year	H1	H2	Year	H1	H2
GDP	3.1	2.9	2.9	2.8	2.8	2.8	2.8
Private consumption	2.6	2.7	3.1	2.2	2.7	2.5	2.8
Government consumption	3.4	4.6	5.4	3.9	4.1	3.4	4.7
Facilities investment	14.6	1.2	1.8	0.6	1.7	0.8	2.7
Intellectual property products investment	3.0	2.7	2.8	2.6	2.6	2.7	2.5
Construction investment	7.6	-0.5	0.7	-1.5	-2.2	-2.6	-1.8
Goods exports	3.8	3.5	3.0	4.0	3.5	3.9	3.1
Goods imports	7.4	3.0	2.5	3.4	2.9	2.1	3.7

Note: 1) Year-on-year; the figures for 2018 and 2019 are forecast as of Jul.2018.
Source: The Bank of Korea.

The headline consumer price index is forecast to rise by 1.6% this year, and by 1.9% next year. The upside and downside risks to the future inflation path are mixed. Some of the main upside risks are rising international oil prices due to persisting geopolitical risks in the Middle East, and increases in import prices as a result of Korean won weakening. The downside risks meanwhile include those of a sharp fall in international oil prices owing to increased crude oil production, and of greater deflationary pressures on service prices in consequence of expanded provision of welfare services related to education, medical care, etc.

Inflation outlook[1)]

(%)

		2017	2018			2019e		
			Yeare	H1	H2e	Year	H1	H2
CPI inflation		1.9	1.6	1.4	1.8	1.9	2.0	1.8
Core Inflation	CPI excluding food & energy	1.5	1.4	1.3	1.6	1.9	1.9	1.9
	CPI excluding agricultural products & oils	1.5	1.4	1.3	1.6	1.9	1.9	1.8

Note: 1) Year-on-year; the figures are forecast as of Jul.2018.
Source: The Bank of Korea, Statistics Korea.

10 Among the major items that will have to be considered in the operation of monetary policy, we have examined the factors behind the changes in the domestic inflation dynamics, fiscal policy, and the financial unrest in emerging market countries.

There appear to have been substantial changes in the inflation dynamics in Korea since the global financial crisis, with the long-term trend of inflation as indicated by major price indicators falling and the differences in volatility among the various indicators widening. This is thought to have been a result of a complex interplay of factors such as a decline in global inflation, the drop in the Korean won exchange rate, constraints on the raising of public utility charges, and the weakening relationship between the economic cycle and prices. Recently, however, it is judged that there have been some shifts in these factors driving the changes in Korean inflation. Amid a continuing modest upward trend in global inflation, the Korean won/US dollar exchange rate has also risen and there is a possibility of this causing the inflation of goods prices to pick up. There is also a possibility of the inflation of service prices gradually accelerating, due to plans to raise public prices and to demand-side pressures in line with the continuing economic growth. It is therefore judged that although the uncertainties concerning the forecast inflation path are high, the consumer price inflation rate will gradually rise and approach the target level (2.0%) going forward.

An analysis of the government's fiscal policies, using diverse indicators such as various fiscal balances and the Fiscal Impulse Measure, reveals the following. First, a detailed look at the fiscal balance finds fiscal operations during the last year to have been expansionary as the structural fiscal balance and the fiscal balance with the social security funds excluded showed deficits even though the consolidated fiscal balance ran a surplus thanks to favorable tax revenues. The contribution of fiscal policy to GDP as indicated by the Fiscal Impulse Measure, was slightly negative from the first through the third quarters of last year, but turned positive during the fourth quarter as fiscal spending increased substantially. In the future also it appears likely that fiscal operations will continue to contribute to growth, as fiscal expenditures are expected to steadily expand.

Since the middle of April there has been continuing financial and foreign exchange market unrest in some emerging market countries. This appears to have been a result of the emergences of political and economic vulnerabilities in these countries, together with risk aversion due to concerns about the possibility of accelerated interest rate hikes by the US Federal Reserve and about the strengthening of protectionism. It is assessed that the effects on the domestic financial and foreign exchange markets due to the unrest in these countries have been limited until now given the robustness of Korea's economic fundamentals. However, if the unrest in vulnerable EMEs spreads and the uncertainties related to the financial markets in China expand then the negative impacts on Korea can grow, and it is thus necessary to watch closely for any changes in market conditions.

$\boxed{11}$ In the future as well, the Bank of Korea will conduct its monetary policy so as to ensure that the recovery of economic growth continues and consumer price inflation can be stabilized at the target level over a medium-term horizon, while also devoting attention to financial stability.

The domestic economy is expected to sustain its solid growth, but given the forecast that the demand-side inflationary pressures will not be large for the time being, the Bank plans to maintain its accommodative monetary policy stance. In this process, as it closely examines any changes in conditions at home or abroad, and their effects on growth and prices, it will carefully judge whether an additional adjustment in the degree of accommodation is called for. Besides consumer price inflation the Bank will also closely review core inflation, inflation expectations, international oil prices, global inflation, various auxiliary price indices, the GDP gap, and the spare capacities in employment and in the manufacturing sector.

The Bank will operate its monetary policy while remaining continually mindful of financial stability as well. As the uncertainties related to global trade conflicts and to the speeds of monetary policy normalization in major countries are high, it will closely examine their developments and impacts going forward. Along with this the Bank will devote attention as well to the possibility of its prolonged accommodative policy stance causing the accumulation of household debt and other financial imbalances to deepen, and the effects on growth and inflation that this build-up in imbalances will have in the medium to long term.

I

Monetary Policy Operating Conditions

1. Global Economy

Global Economy Continues Firm Growth

The global economy sustained its solid growth during the period considered. The United States continued to grow steadily thanks to improvements in employment conditions[1] and to its expansionary fiscal policies. As economic sentiments were also buoyant, US consumption grew steadily and private investment also increased with improvements in corporate performances. In the euro area there were slowdowns in some indicators related to industrial production and exports, affected by abnormal weather conditions, by concerns about intensified trade conflicts and by political uncertainties, but the economy grew modestly thanks to continued robust domestic demand in line with improvements in employment conditions including larger wage increases, and with buoyant economic sentiments.[2] Growth in Japan slumped temporarily due to the worsening of weather conditions at the beginning of the year, but after that recovered gradually with facilities investment growing[3] and exports and private consumption improving as well. Despite slowdowns in some real indicators such as fixed asset investment,[4] the Chinese economy recorded stable growth based on favorable employment conditions and buoyant exports. India and the ASEAN-5 countries also showed steady growth, thanks to robust private consumption and increases in exports, while Brazil and Russia continued their modest recoveries driven by increasing raw materials exports and improving consumer sentiments.

<Table I - 1> **Economic growth in major economies[1)]**

(%)

	2015	2016	2017[2)]				2018[2)]
			Year	Q2	Q3	Q4	Q1
World	3.5	3.2	3.7	-	-	-	-
Advanced economies	2.3	1.7	2.4	-	-	-	-
US	2.9	1.5	2.3	3.1	3.2	2.9	2.0
Euro area	2.1	1.8	2.4	2.9	2.9	2.8	1.5
Japan	1.4	1.0	1.7	2.1	2.0	1.0	-0.6
Emerging market and developing economies	4.3	4.4	4.7	-	-	-	-
China	6.9	6.7	6.9	6.9	6.8	6.8	6.8
India[3)]	8.2	7.1	6.7	5.6	6.3	7.0	7.7
ASEAN-5[4)]	4.9	4.9	5.3	5.3	5.6	5.5	5.5
Brazil	-3.5	-3.5	1.0	0.4	1.4	2.1	1.2
Russia	-2.5	-0.2	1.5	2.5	2.2	0.9	1.3

Notes: 1) Based on IMF statistics, apart from individual countries and the euro area which are based on their own published statistics.
2) The rates of growth are annualized quarter-on-quarter rates for advanced economies, and year-on-year rates 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.

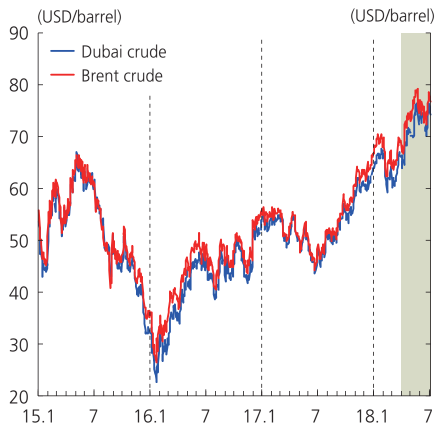
International Oil Prices Rise to Mid-70 US Dollars per Barrel Level

International oil prices rose in April, affected by the air strikes on Syria[5] and by a reduction in oil inventories, and in May

1) Between January and May of this year the amount of increase in persons employed in the non-agricultural sector averaged 207 thousand per month, higher than that (182 thousand) of last year, while in May the unemployment rate recorded its lowest figure since 1969 at 3.8%.
2) During June of this year the euro area all-industry PMI was 54.8, above the "no-change" threshold (50).
3) During the April to May period of this year shipments of capital goods expanded by 1.7% year-on-year, driven by the automation/computerization of facilities in response to shortages of manpower and by replacements of aging equipment.
4) Between January and May of this year fixed asset investment (aggregate) recorded an increase of 6.1% year-on-year, its lowest figure since December 1999 (6.3%).
5) On April 14 the US, France and the UK responded to the alleged use of chemical weapons by Syria and conducted air strikes on three Syrian chemical weapons factory sites.

then soared to the mid- to upper- 70 dollars-to-the barrel level in line with the US withdrawal from the Iran nuclear accord and with a sharp drop in crude oil production in Venezuela.[6] Entering June they fell slightly, due to expectations of increased production by OPEC nations, but from late June then rose again as the actual volume of the production increase was less than market expectations, on top of the effects of political unrest in Libya and a breakdown in oil sand production equipment in Canada.

<Figure I - 1> **International oil prices**



Source: Bloomberg.

US Long-term Market Interest Rates Fluctuate

US Treasury bond yields showed repeated fluctuations, as factors pushing them up such as the continuing robustness of economic indicators and the likelihood of accelerated interest rate hikes by the US Federal Reserve were mixed with factors pulling them down, including political unrest in some countries in the euro area such as Italy and the deepening of the trade dispute between the US and China. German Treasury bond yields fell, however, on factors such as strengthening safe asset preferences due to political unrest in the euro area and the ECB monetary policy meeting statement in June that was more accommodative than had been expected.

<Figure I - 2> **Long-term market interest rates[1] in major economies**

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

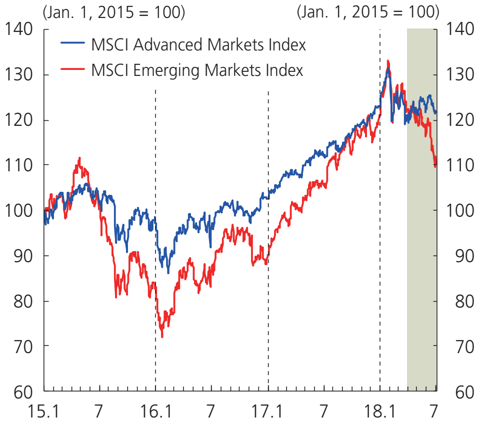
Stock Prices in Advanced Countries and Emerging Market Countries Move in Different Directions

Global stock prices in advanced and emerging market economies moved in somewhat different directions. Advanced countries' stock prices fluctuated, affected by a combination of upside factors such as the

6) Venezuelan crude oil production was 28% lower year-on-year in May, as a result of economic stagnation, financial difficulties of the state-owned petroleum company, and sanctions on Venezuela by the US.

improved economic indicators and corporate performances in the US, and downside factors including the intensifying protectionism and deteriorating investment sentiment in Europe owing to expanded political uncertainties. EME stock prices meanwhile fell sharply, due to the drop in Chinese stock prices in consequence of the US-China trade dispute and to concerns about financial unease in Argentina and Brazil.

<Figure I - 3> Share price indices of advanced and emerging markets

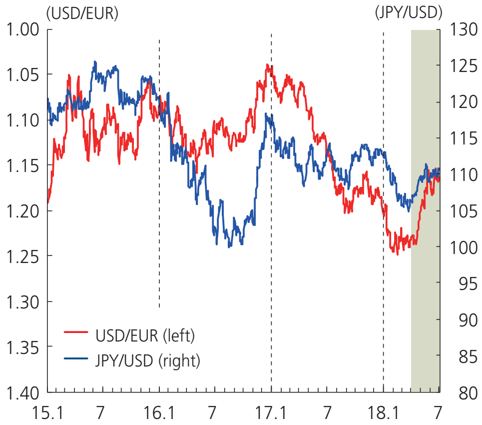


Source: Bloomberg.

US Dollar Reverses to Appreciation

The US dollar reversed rapidly to show an appreciation, on factors such as the continuing US economic buoyancy, growing expectations of interest rate hikes by the US Federal Reserve and financial unease in some EMEs. It strengthened greatly against the euro in particular, as problems of political unrest in euro area countries such as Italy emerged. Against the yen the extent of the dollar's appreciation was limited, in line with a growing tendency toward safe asset preferences in consequence of concerns about trade conflicts.

<Figure I - 4> Major exchange rates[1)]



Note: 1) USD/EUR is based on the New York market rate at 16:30, and JPY/USD on the Tokyo market closing rate.
Source: Bloomberg.

2. Real Economy

Domestic Economy Continues to Grow

The domestic economy continued its sound growth. The real GDP growth rate (quarter-on-quarter), after emerging from its temporary negative figure in the fourth quarter of last year,[7] recorded 1.0% in the first quarter of this year and then continued its solid trend in the second quarter also.

Private consumption sustained its growth. During the first quarter it grew by 0.7% quarter-on-quarter, driven by consumption of durable goods due to increased sales promotions of imported automobiles and to greater demand for home appliances related to cold waves and fine dust, and in the second quarter as well continued to gradually improve.[8] The pace of increase in government consumption accelerated. In the first quarter government consumption rose greatly, as policies to strengthen health insurance coverage were implemented.[9] Entering the second quarter the pace of increase slowed,[10] as the rise in health insurance payouts lessened in consequence of deferred demand for medical treatment in view of the additional expansions in health insurance coverage scheduled for the second half.[11] Facilities investment was buoyant, increasing by 3.4% quarter-on-quarter in the first quarter owing to continued investment in the semiconductor sector and to an increase in the number of passenger planes newly commissioned. In the second quarter it underwent an adjustment, however, as display-related investment slowed and as projects of major firms to expand their semiconductor facilities were completed.[12] Construction investment expanded in the first quarter, as the number of construction projects completed rose to a large extent temporarily in January. Entering the second quarter it resumed its phase of adjustment, however, as the decline in the quantity of construction projects continued.[13]

<Table I - 2> **Major economic growth indicators**[1]

(%)

	2016	2017					2018
		Year	Q1	Q2	Q3	Q4	Q1
Real GDP	2.9	3.1	1.0 (2.9)	0.6 (2.8)	1.4 (3.8)	-0.2 (2.8)	1.0 (2.8)
(Private consumption)	2.5	2.6	0.5 (2.1)	1.0 (2.4)	0.8 (2.6)	1.0 (3.4)	0.7 (3.5)
(Government consumption)	4.5	3.4	0.6 (2.4)	1.2 (2.8)	1.9 (4.3)	0.5 (4.1)	2.2 (5.8)
(Facilities investment)	-1.0	14.6	4.5 (16.1)	4.3 (17.9)	0.2 (16.3)	-0.7 (8.6)	3.4 (7.3)
(Construction investment)	10.3	7.6	4.2 (11.3)	0.9 (8.5)	1.1 (8.0)	-2.3 (3.8)	1.8 (1.8)
(Goods exports)	2.1	3.8	3.1 (6.8)	-2.4 (2.4)	5.3 (6.1)	-5.6 (0.1)	4.5 (1.5)
(Goods imports)	3.3	7.4	4.7 (11.4)	-0.7 (8.7)	2.4 (8.4)	-4.5 (1.6)	7.1 (4.0)

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

7) This was a result mainly of the base effect of the high rate of growth in the third quarter of 2017.
8) Between April and May 2018 Statistics Korea's retail sales index (monthly average basis) rose by 0.7% compared to the first quarter (+5.1% year-on-year), while its index of services rose by 0.2% (+2.5% year-on-year).
9) During the first quarter of 2018 health insurance payouts increased by 13.5% year-on-year.
10) In the second half health insurance coverage for two- to three- patient rooms at general hospitals (July) and for MRIs of the brain and of blood vessels (September) is scheduled to be strengthened.
11) Between April and May 2018 health insurance payouts increased by 4.2% year-on-year, as their extent of increase contracted compared to that (+13.5%) in the first quarter.
12) Between April and May 2018 Statistics Korea's index of estimated equipment investment (monthly average basis) decreased by 8.9% compared to the first quarter (-1.5% year-on-year).
13) During April and May 2018 Statistics Korea's value of construction completed (monthly average basis) declined by 0.7% compared to the first quarter (+0.7% year-on-year).

Amount of Increase in Persons Employed Falls Substantially

During the second quarter the number of persons employed increased by just 101 thousand persons year-on-year (compared to 183 thousand persons in the first quarter), as the effects of the sluggishness in business conditions in the automobile and services industries, and of the restructuring in some manufacturing industries, were more serious than originally expected. The unemployment rate, at 3.8%, was 0.1% point higher than in the first quarter (3.7%).

<Table I - 3> **Major employment-related indicators**

(million persons, %)

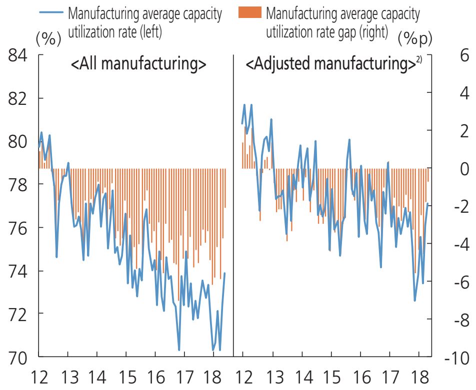
	2016	2017				2018	
		Year	Q2	Q3	Q4	Q1	Q2
Economically active population	27.4	27.8	28.0	28.0	27.8	27.5	28.1
(Rates of change[1])	1.0	1.2	1.5	0.9	1.0	0.7	0.5
Number of employed persons	26.4	26.7	26.9	27.0	26.9	26.3	27.0
(Changes[1])	0.2	0.3	0.4	0.3	0.3	0.2	0.1
Labor force participation rate[2]	62.9	63.2	63.1	63.1	63.2	63.3	63.1
Employment-population ratio[2]	60.6	60.8	60.8	60.8	60.9	60.9	60.7
Unemployment rate[2]	3.7	3.7	3.7	3.7	3.7	3.7	3.8

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

Idle Production Capacity Persists

The negative average capacity utilization rate gap in manufacturing and the industry-adjusted average capacity utilization rate gap[14] both narrowed. Capacity utilization rates are still below their long-term averages, however, and it is assessed that the idle production capacity in the Korean economy persists.

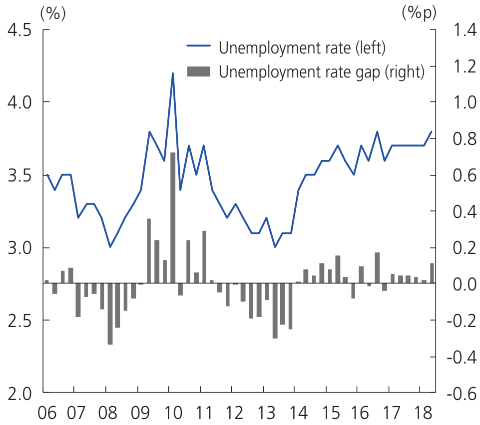
<Figure I - 5> **Manufacturing industry average capacity utilization rate gap[1]**



Notes: 1) (Capacity utilization rate - Average capacity utilization during previous 10 years); a figure below 0 indicates the existence of idle production capacity.
2) With electronics parts (displays) and communication devices (smartphones) excluded.
Source: Statistics Korea.

The unemployment rate gap expanded, as the unemployment rate rose.

<Figure I - 6> **Unemployment rate gap[1]**



Note: 1) Unemployment rate (seasonally adjusted) - Non-accelerating inflation rate of unemployment (NAIRU, estimated by Bank of Korea).
Sources: Bank of Korea estimates, Statistics Korea.

14) The industry-adjusted average capacity utilization gap was calculated in consideration of the fact that the existence of idle production capacity is unavoidable in industries such as electronics parts (displays) and telecommunications equipment (smartphones), where large amounts of investment over long periods of time are necessary in order to expand production capacities, and the intervals between releases of new products are short.

Current Account Surplus Declines

The current account surplus lessened in the first quarter year-on year, driven mainly by the goods account. The goods account surplus narrowed, as imports increased much more than exports due to rises in international oil and raw materials prices. The services account deficit widened slightly, led by the travel account. During April and May the current account surplus expanded slightly year-on year (9.5 billion dollars last year), owing to an improvement in the goods account.

Exports (customs clearance basis) showed solid growth during the first quarter despite a reduction in the number of business days, as the buoyancy of semiconductor and petroleum product exports continued. In the second quarter their extent of increase declined, due to the base effect of the buoyancy in ship exports during the same period in 2017, but they sustained favorable flows as exports of major items other than ships, such as semiconductors and petroleum products, expanded.

Imports (customs clearance basis) sustained a relatively high pace of growth during the first quarter, as imports of raw materials and capital goods continued to grow at high rates and consumer goods imports also expanded greatly led by those of passenger automobiles. In the second quarter imports of consumer goods continued to grow at a high rate, while the extent of growth in imports of raw materials increased due to the rise in international oil prices. The pace of increase in imports of capital goods meanwhile slowed.

<Table I - 4> **Current account**

(billion dollars, %)

	2016	2017					2018	
		Year	Q1	Q2	Q3	Q4	Q1	Apr.-May
Current account	99.2	78.5	19.2	16.5	25.6	17.2	11.8	10.4
Goods	118.9	119.9	27.3	29.6	34.8	28.3	23.9	21.7
Exports[1]	495.4	573.7	132.1	147.0	151.1	143.5	145.1	152.1[3]
(Rate of change[2])	-5.9	15.8	14.6	16.7	24.0	8.4	9.9	3.4[3]
Imports[1]	406.2	478.5	116.4	117.8	120.9	123.4	132.3	132.8[3]
(Rate of change[2])	-6.9	17.8	24.1	18.6	17.9	11.6	13.6	12.8[3]
Services	-17.7	-34.5	-8.7	-6.7	-8.5	-10.6	-9.4	-4.1
Credit	94.9	87.5	21.0	21.1	22.8	22.7	23.4	16.3
Debit	112.6	122.0	29.7	27.8	31.3	33.2	32.8	20.3
Primary income	3.9	0.1	1.4	-4.9	1.9	1.7	0.4	-5.6
Secondary income	-5.8	-7.1	-0.8	-1.5	-2.6	-2.1	-3.1	-1.6

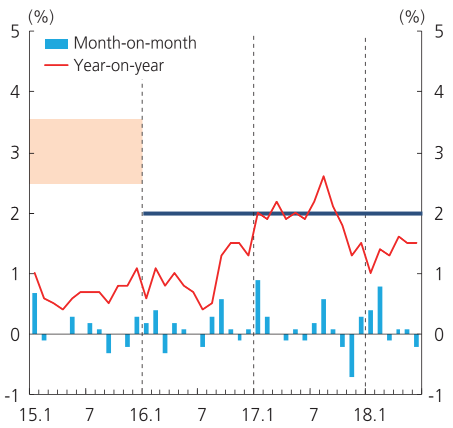
Notes: 1) Customs-clearance basis.
2) Year-on-year.
3) Based on the second quarter of 2018.
Sources: The Bank of Korea, Korea Customs Service.

3. Prices

Extent of Increase in Consumer Prices Expands Slightly

Consumer prices rose by a rate in the mid-1% range during the second quarter, as the rates of inflation of agricultural, livestock and marine and petroleum product prices accelerated.

<Figure I - 7> **CPI inflation**[1)]



Note: 1) The shaded area indicates the medium-term inflation target range during the 2013~2015 period, and the bold line the medium-term inflation target set for 2016 onwards.
Sources: The Bank of Korea, Statistics Korea.

Agricultural, livestock and marine product price inflation picked up owing to the greatly increased prices of rice and some vegetables[15)] in addition to certain base effects.[16)] Industrial product prices rose to a large extent, led by petroleum product prices in line with the effects of the rise in international oil prices.[17)] Electricity, water and gas charges continued to decline, on the impact of the reduction in city gas fees in November of last year. With regard to service charges, the paces of increase in housing rental fees and public service charges slowed, but the extent of increase in private service charges expanded slightly, driven by charges for services other than dining.

<Table I - 5> **Consumer prices**[1)]

(%)

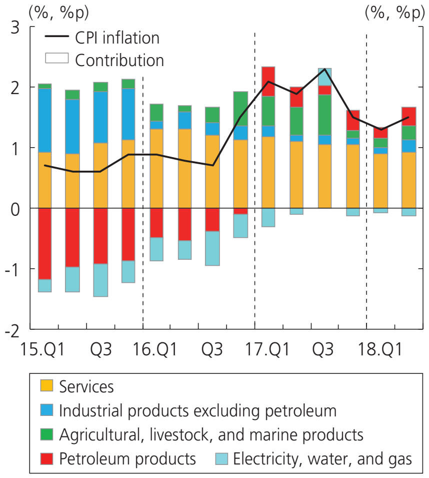
	2016	2017					2018	
		Year	Q1	Q2	Q3	Q4	Q1	Q2
Consumer price index	1.0	1.9	2.1	1.9	2.3	1.5	1.3	1.5
Agricultural, livestock, and marine products	3.8	5.5	6.1	6.1	8.4	1.4	1.7	2.9
(Agricultural products)	3.8	4.6	4.7	3.6	10.2	-0.1	4.0	8.2
(Livestock products)	4.4	6.5	8.6	9.6	6.7	1.3	-4.2	-6.8
Industrial products	-0.5	1.4	2.1	1.3	0.9	1.5	0.9	1.6
(Petroleum products)	-8.1	7.7	12.0	7.7	3.4	8.0	3.9	6.6
(Industrial products excluding petroleum)	0.8	0.5	0.7	0.3	0.5	0.4	0.4	0.8
Electricity, water, and gas	-9.2	-1.4	-6.9	-2.4	8.0	-3.3	-1.8	-3.0
Services	2.3	2.0	2.1	2.0	1.9	1.9	1.6	1.6
(Rentals for housing)	1.9	1.6	1.7	1.8	1.6	1.4	1.1	0.7
(Public service charges)	1.5	1.0	1.0	1.0	1.0	0.8	0.5	0.2
(Private service charges)	2.7	2.5	2.7	2.5	2.3	2.5	2.3	2.5
CPI for living necessities	0.7	2.5	2.5	2.4	3.2	1.6	1.1	1.4
CPI excluding food & energy	1.9	1.5	1.7	1.5	1.4	1.5	1.3	1.3
CPI excluding agricultural products & oils	1.6	1.5	1.5	1.4	1.7	1.3	1.2	1.3

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

Looking at the degrees of contribution to the CPI inflation rate of the individual product categories, the positive contributions of agricultural, livestock and marine product and petroleum product prices grew greatly during the second quarter. The negative contribution of electricity, water and gas charges in contrast expanded slightly.

15) During the second quarter the prices of rice and potatoes rose by 31.2% and 50.5% respectively year-on-year.
16) Prices of vegetables had fallen by 19.3% quarter-on-quarter in the second quarter of last year.
17) The Dubai Oil price rose by 12.2%, from 64.1 dollars per barrel during the first quarter to 71.8 dollars per barrel in the second quarter.

<Figure I - 8> **Contributions to CPI inflation**[1]



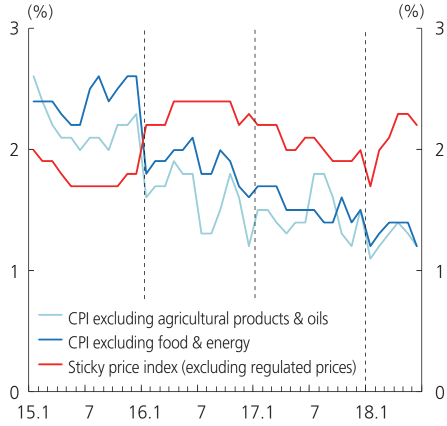
Note: 1) Year-on-year.
Source: Statistics Korea.

Underlying Price Movements Generally Stable

The price indicators showing the underlying price movements were generally stable. During the second quarter the core inflation rate (index with food and energy prices excluded) was in the low- to mid-1% range, continuing on from the first quarter, although the sticky price index (with regulated prices excluded) showed a higher rate of increase than in the first quarter.

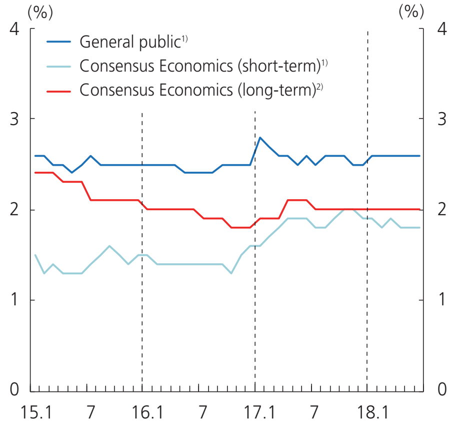
The inflation expectations (for the next one year) of the general public maintained the same level (2.6%) as in the previous quarter. In the economic experts group,[18] the rate of short-term (one-year) inflation expectations fell slightly to 1.8% in the second quarter, from 1.9% in the first, but their long-term (for the next five years) inflation expectations maintained the same level (2.0%) as in the first quarter.

<Figure I - 9> **Underlying inflation rates**[1]



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

<Figure I-10> **Inflation expectations**



Notes: 1) Expected CPI inflation rate for the next 12 months.
2) Expected CPI inflation rate for the next 60 months.
Sources: The Bank of Korea, Consensus Economics.

Rises in Producer and Import Prices Accelerate

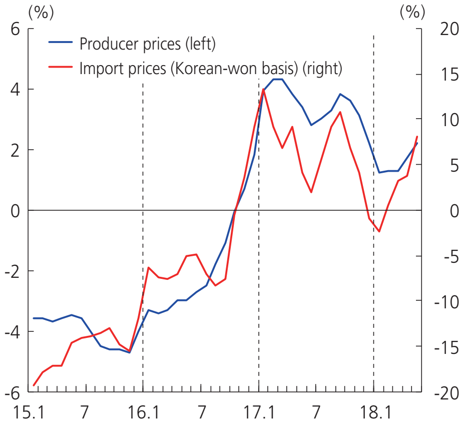
The extent of increase in producer prices

18) Referring to the results of a survey by Consensus Economics of investment banks, securities companies, market research and analysis institutions, etc., in Korea and overseas.

expanded during the second quarter, as a result of substantial increases in the prices of industrial products such as petroleum products and primary metals under the effects of the rising prices of oil and other international raw materials.

During the same period the pace of increase in import prices (Korean won basis) also picked up, under the influences of the rises in international oil prices and in the Korean won/US dollar exchange rate.

<Figure I-11> Producer prices and import prices (Korean-won basis)[1)]



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

Housing Sales Prices Hold Steady, while Housing Leasehold Deposit Prices Fall to a Greater Extent

Nationwide housing sales prices continued their pace of increase until the first quarter and then held steady in the second quarter. In Seoul and its surrounding areas the pace of sales price increase slowed, as the rapid rise in the prices of apartments being reconstructed in Seoul cooled down, affected by the measures adopted by the government,[19)] while sales prices in the other parts of the country continued to decline, particularly in Gyeongsangnam-do and Ulsan which are suffering from slumps in their main regional industries.

The extents of decline in nationwide housing leasehold deposit prices expanded, on the impacts of large increases in the amounts of new apartments available.

<Table I - 6> Rates of increase in housing sales and leasehold deposit prices[1)]

(%)

	2016	2017					2018	
		Year	Q1	Q2	Q3	Q4	Q1	Q2
Housing sales prices	0.7	1.5	0.1	0.5	0.6	0.4	0.5	0.0
Seoul and its surrounding areas	1.3	2.4	0.1	0.7	0.8	0.7	1.1	0.4
(Seoul)	2.1	3.6	0.2	1.2	0.9	1.2	2.4	0.8
Other areas	0.2	0.7	0.1	0.2	0.3	0.1	-0.1	-0.3
Reconstructed apartment sales prices	15.8	16.0	1.5	5.0	3.7	4.9	8.0	0.9
Leasehold deposit prices	1.3	0.6	0.1	0.2	0.2	0.1	-0.3	-0.7
Seoul and its surrounding areas	2.0	1.4	0.2	0.5	0.5	0.2	-0.3	-0.8
(Seoul)	2.0	2.0	0.2	0.7	0.6	0.5	0.3	-0.6
Other areas	0.7	-0.1	0.1	0.0	-0.1	-0.1	-0.3	-0.7

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

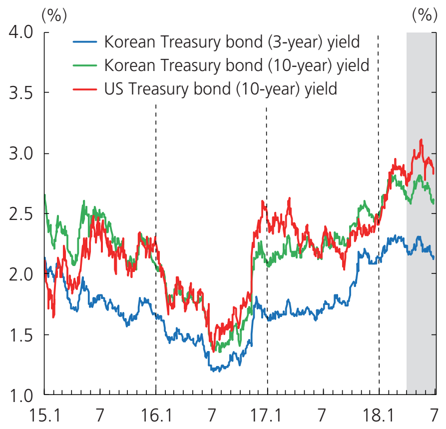
19) On March 5 the government expanded the weight given to the structural safety item among the safety criteria for reconstruction projects (20 → 50%), and normalized the standards for reconstruction safety diagnosis by for example making eligibility evaluations by Korea Infrastructure Safety Corporation and the Korea Institute of Civil Engineering and Building Technology mandatory for sites that have been granted conditional approvals for reconstruction.

4. Financial and Foreign Exchange Markets

Long-term Market Interest Rates Fall, after Rising Greatly

The Treasury bond yield (3-year) rose considerably until the middle of May, influenced by factors such as the sharp increase in international oil prices and the rise in US Treasury bond yields in line with the buoyancy of major US economic indicators. It subsequently fell, however, on the effects of the sluggish domestic employment indicators, the political unrest in Italy, and the strengthening of protectionism.

<Figure I -12> **Korean and US Treasury bond yields**

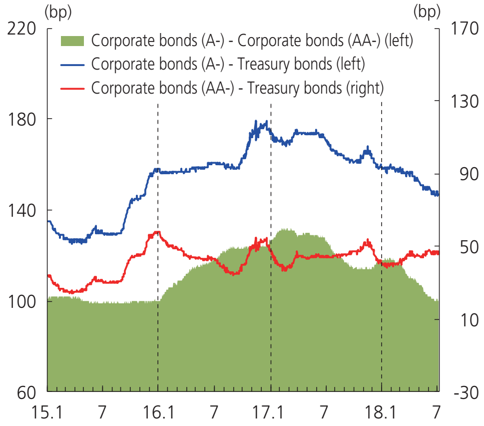


Sources: KOFIA, Bloomberg.

Corporate Bond Spreads Narrow, Led by Sub-Prime Bonds

The corporate bond markets showed buoyancy, with credit spreads remaining stable thanks to expectations of improved corporate performances and to the advantageous bond interest rates. Credit spreads on prime (AA-) bonds were maintained in the mid-40bp range generally, and as the credit spreads on sub-prime (A-) bonds gradually narrowed the credit differentiation between prime and sub-prime bonds steadily lessened. The buoyancy in the primary markets meanwhile continued, with net issuance increasing and demand for newly issued bonds also rising.

<Figure I -13> **Corporate bond credit spread,[1] and spread across credit ratings**

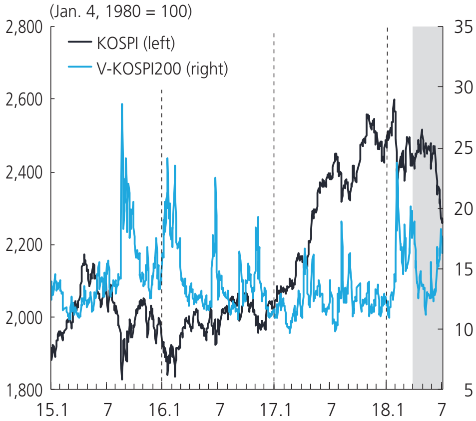


Note: 1) 3-year maturity basis; Treasury bond yields based on final quoted yields, and corporate bond yields on average yields estimated by four private credit rating agencies.
Source: KOFIA.

KOSPI Plunges, after Considerable Increase

The KOSPI rose to a considerable extent, due to expectations of improvements in corporate performances and to the easing of North Korea risks in line with the South-North summit, before then reversing to a decline from May, under the effects of cautiousness related to the strengthening US protectionism and of sales for profit-taking after the rise in prices. The KOSPI plunged from the middle of June, notably, as the likelihood of accelerated interest rate hikes by the US Federal Reserve and concerns about an expansion in the US-China trade conflict rose significantly. The stock price volatility index (V-KOSPI 200) showed generally low levels, before rising slightly in June along with the increases in external risks.

<Figure I-14> KOSPI and share volatility index



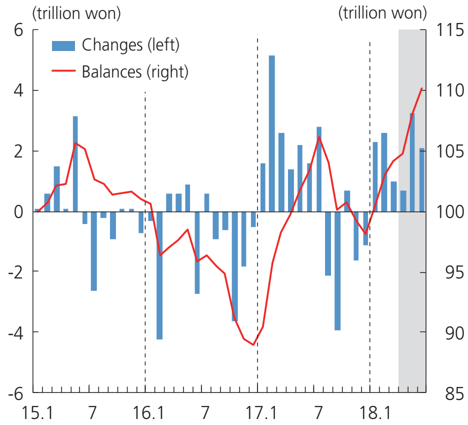
Source: Koscom.

Domestic Portfolio Investment by Foreigners Increases

Foreigners' portfolio investment in Korea increased, led by that in bonds.

Bond investment by foreigners recorded an all-time high of 110.7 trillion won (on a daily investment balance basis) on July 5, as it continued its solid increase seen since the beginning of the year. Amid steadily increasing investment from the public sector, by central banks for example, investment by the private sector, including banks and global funds also rose to a considerable extent, in line with factors such as the easing of North Korea risks and an expansion in arbitrage incentives in line with the drop in the swap rate.

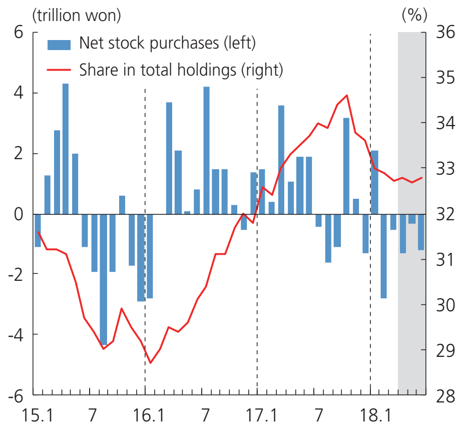
<Figure I-15> Changes in and balances of foreigners' bond holdings



Source: Financial Supervisory Service.

Foreign investors continued to net sell domestic stocks from February, due to the likelihood of an acceleration in interest rate hikes by the US Fed and to concerns about expansions in the global trade disputes.

<Figure I-16> Foreigners' net stock purchases[1] and share in total holdings[2]



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

Banks' SME Lending Increases Steadily

Banks' corporate lending showed a continued trend of increase during the second quarter of this year.

Banks' SME lending continued to grow steadily, although the extent of its growth narrowed compared to the previous quarter owing to deferrals of loan repayments due to the last day of March being a holiday.[20)] Lending to large enterprises emerged from its trend of decline of last year. Corporate lending by non-bank financial institutions meanwhile continued to increase, driven by loans from credit cooperative organizations such as mutual credit cooperatives.

The extent of increase in the amount of corporate funds raised via direct financing (net increase basis) fell compared to that in the first quarter. The amount of net corporate bond issuance grew, on demand for advance issuance in preparation for rising market interest rates, but the volume of net CP issuance contracted as some companies switched their means of funding to issuance of bonds. The extent of increase in stock issuance lessened as well, as the amount of paid-in capital increases by large corporations declined.

<Table I - 7> **Corporate funding**[1)]

(trillion won)

		2016	2017				2018	
			Year	Q2	Q3	Q4	Q1	Q2
Loans	Banks[2)]	23.9	40.4	6.7	16.0	5.4	14.6	10.1
	(Large firms)	-9.9	-3.7	-2.9	0.8	-3.1	1.8	1.4
	(SMEs)	33.8	44.0	9.6	15.2	8.6	12.7	8.7
	Non-banks[3)]	30.0	41.8	10.9	11.0	11.6	9.4	7.1
Direct financing	Corporate bond issuance[4)]	-6.7	-3.5	2.7	-1.6	-4.7	2.0	2.6
	CP issuance[5)]	-2.1	2.3	0.4	2.5	-1.0	2.4	1.1
	Stock issuance[6)]	15.9	13.9	4.5	3.2	5.3	3.9	2.7

Notes: 1) Based on changes in balances during the periods.
2) Figures for May~June 2018 preliminary.
3) Based on loans by mutual savings banks, credit unions, mutual credit unions, community credit cooperatives, and insurance companies (including public and other lending); figures for Q2 2018 based on April~May figures.
4) Based on corporate bonds issued through public subscription by non-financial corporations (excluding ABSs but including P-CBOs).
5) Based on CP handled by securities firms, merchant banking corporations and trust accounts of banks; figures for Q2 2018 as of June 20.
6) Initial public offerings and paid-in capital increases.

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

Extent of Year-on-Year Household Lending Increase Narrows

Household loans (depository institution basis) increased by an average of 6.0 trillion won per month in the second quarter, as their extent of increase thus expanded compared to that (3.4 trillion won) in the previous quarter but narrowed relative to the 7.8 trillion won increase in the second quarter last year.

Household lending by banks grew by a monthly average of 5.2 trillion won, as its extent of growth thus expanded over the 3.2 trillion won figure in the first quarter. Home mortgage loans increased steadily, driven by

20) Loans scheduled to be repaid at the end of the first quarter were instead repaid in April, due to the last day of the first quarter being a holiday, and this contributed to the decline in the amount of increase in loans during the second quarter.

leasehold deposit fund loans and by already approved loans for intermediate payments. The extent of increase in other loans expanded, driven by fund demand related to moving into new apartments and to settlements of consumption expenditures made over the holidays in early May. Non-bank financial institutions' household lending also increased, by a monthly average of 0.8 trillion won, led by other loans including those secured by collateral besides housing. It thus increased by more than the 0.2 trillion won recorded during the quarter before.

<Table I - 8> **Household lending by depository institutions[1]**

(trillion won)

	2016	2017				2018	
		Year	Q2	Q3	Q4	Q1	Q2[2]
Commercial & specialized bank loans[3]	5.7	4.9	5.7	6.0	5.9	3.2	5.2
(Mortgage loans)[3]	4.6	3.1	3.8	3.7	3.0	2.0	2.9
(Other loans including loans through overdraft accounts)	1.1	1.8	1.9	2.3	2.8	1.2	2.3
Non-bank depository institution loans[3]	3.6	1.9	2.1	1.4	1.6	0.2	0.8
(Mutual credit)	1.6	0.8	0.8	0.4	0.9	0.3	0.9
(Credit unions)	0.5	0.1	0.2	-0.1	0.0	-0.2	-0.2
(Community credit cooperatives)	1.0	0.8	0.9	0.8	0.6	0.1	0.0
(Mutual savings banks)	0.4	0.2	0.1	0.3	0.1	0.2	0.2
(Others)[4]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total[3]	9.3	6.8	7.8	7.5	7.4	3.4	6.0

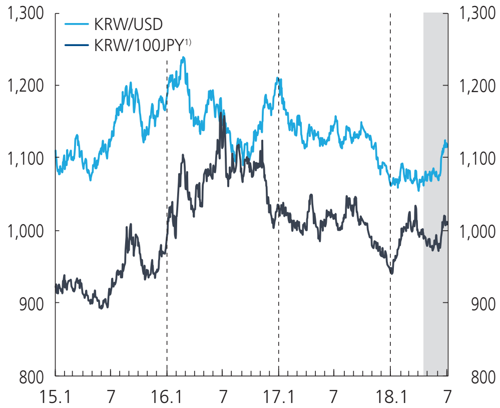
Notes: 1) Based on the average monthly changes during the periods.
2) The June figures are the Bank of Korea advance estimates for banks, and the Financial Supervisory Service advance estimates for non-bank deposit-taking institutions.
3) Including mortgage transfers.
4) Trust accounts of banks, and postal savings.
Sources: The Bank of Korea, Financial Supervisory Service, Korea Housing Finance Corporation.

Korean Won/US Dollar Exchange Rate Rises

The Korean won/US dollar exchange rate maintained stable flows at around the 1,070-won level even after mid-April when the US dollar strengthened, under the influence of the easing of North Korea risks due to expectations for the North Korea-US summit meeting. However, after the North Korea-US summit in June it rose sharply to the 1,120-won level, as the likelihood of an acceleration in interest rate hikes by the US Federal Reserve grew and concerns about the US-China trade dispute increased.

The Korean won/Japanese yen (100 yen) rate also fell, as the won showed relative strength in line with the easing of North Korea risk, but from the middle of June it then rose rapidly as expanded concerns about trade conflicts led to a strengthening of risk aversion globally.

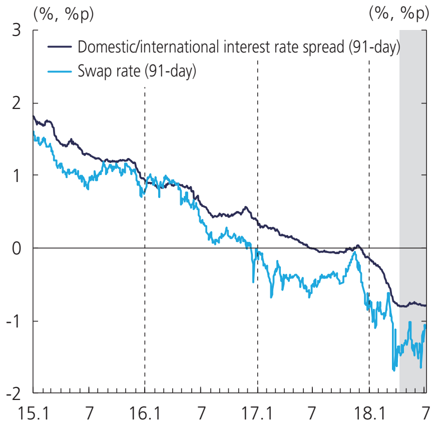
<Figure I -17> **Exchange rates**



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

The swap rate (3-month maturity) sustained generally stable flows from mid-April. In the middle of June it did also fall sharply temporarily, due to cautiousness related to a shortage in the supply of foreign currency funds at the end of the first half, but it rebounded afterward as the markets' concerns eased.

<Figure I -18> **Domestic/international interest rate spread[1)] and swap rate**

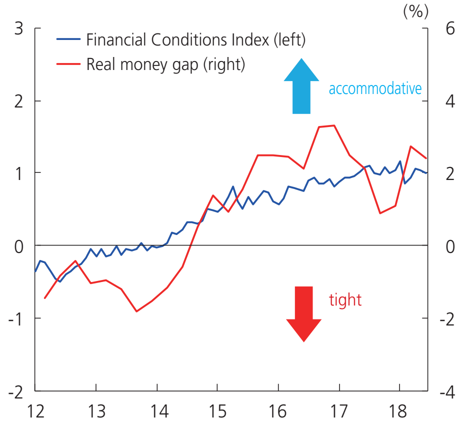


Notes: 1) Yield on Korean Monetary Stabilization Bonds (MSBs) (91-day) - USD LIBOR (91-day).
Source: The Bank of Korea.

Accommodative Financial Conditions Maintained

Domestic financial conditions are assessed as having remained accommodative. The degree of accommodation as shown by the Financial Conditions Index[21)] has lessened slightly recently, as the volatilities of stock prices and exchange rates have risen due to the highlighting of risks related to the US-China trade dispute, but the index is still sustaining an accommodative level. The real money gap[22)] has meanwhile maintained its positive status, with the real money supply exceeding its long-term equilibrium level.

<Figure I -19> **Real money gap[1)2)] and Financial Conditions Index[2)]**



Notes: 1) Based on M2.
2) If the figure is positive (negative), it means that financial conditions are accommodative (tight).
Source: The Bank of Korea.

21) The Financial Conditions Index, an aggregate of several financial variables to form one information variable, is used as an index for assessing whether financial conditions are accommodative or tight. It is calculated by including in it 50 financial variables regarded as important, such as credit indicators, liquidity indicators, market volatility indicators, survey data from financial institutions, etc. After extraction (through iterative estimation using the least squares method) of the factors best reflecting common movements among the 50 total financial variables, the index is standardized (mean: 0, standard deviation: 1) and calculated.

22) This refers to the divergence between the real money supply at a specific point in time and the long-term equilibrium money supply, and is used for judging whether there is an excess (gap > 0) or a shortfall (gap < 0) of real money supplied compared to the long-term equilibrium money supply:

$$\text{Real money gap}_t = \frac{\text{Real money supply}_t - \text{Equilibrium money supply}_t}{\text{Equilibrium money supply}_t} \times 100$$

BOX

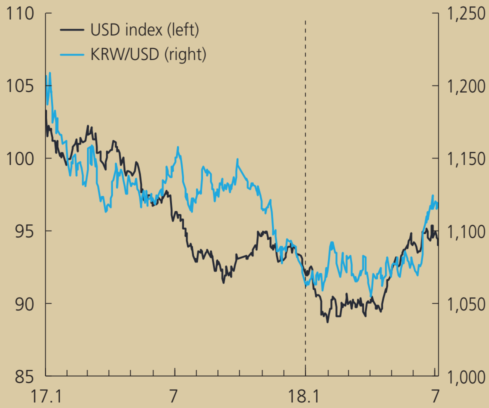
I-1

Assessment of the Background to the Net Sales of Stocks by Foreigners in the First Half

Foreigners were net purchasers of domestic stocks at the beginning of this year, owing to expectations of continued economic improvements in Korea and abroad. Since February they then recorded five consecutive months of net stock sales,[1] in a reversal resulting mainly from expansions in overseas risks related to the likelihood of accelerated interest rate hikes by the US Federal Reserve and to the US-China trade dispute. Profit-taking after the large increase in stock prices until that time was another cause of the net sales.

First, the likelihood of a change in the Federal Reserve's monetary policy was one factor behind the net stock sales by foreigners. As the likelihood of accelerated rate hikes by the Fed surfaced from February, global stock prices plunged and foreigners' investment sentiment toward domestic stocks contracted. Moreover, foreign investors' concerns about foreign exchange losses also grew as the US dollar strengthened.

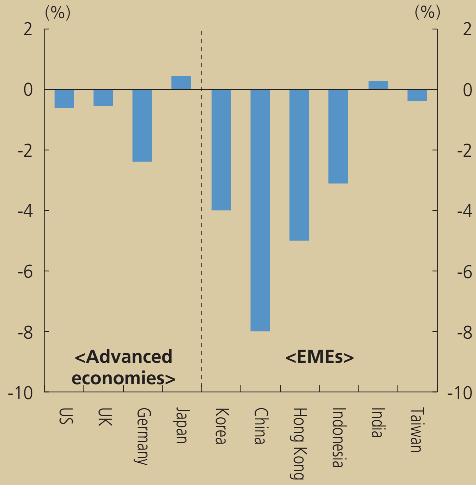
USD index and KRW/USD exchange rate



Source: Bloomberg.

Next, the heightened concerns about an expansion in the US-China trade conflict also appears to have influenced foreigners' net sales of stocks. This started with the US announcement in March of a plan to impose tariffs on imports of Chinese origin, after which concerns about an expansion in the trade dispute grew and risk aversion in the international financial markets intensified. In particular, when the US announced in June the list of the items imported from China on which tariffs would be imposed, and the tariffs' magnitudes, and specified the dates of implementation, concerns about a deepening of the conflict rose even more. Owing to this Chinese stock prices plunged,[2] and some negative effects spread to other Asian EME stock markets as well.

Rates of change in major countries' share prices in June[1)]



Note: 1) Based on changes in the individual countries' representative stock market indices (e.g. DJIA for US).
Source: Bloomberg.

1) The monthly amounts of foreigners' net purchases during the first half were 2.1 trillion won in January, -2.8 trillion won in February, -0.5 trillion won in March, -1.3 trillion won in April, -0.3 trillion won in May and -1.3 trillion won in June. For the first half as a whole they totaled -4.1 trillion won.

2) The increase in concerns about a slowdown of growth in China, due to the sluggishness of some of China's real economic indicators, was another factor pulling stock prices down.

Finally, the fact that global investors, while reducing their investments in EMEs in response to the financial unrest in some weak EMEs engaged in profit-taking, especially on the stocks whose prices had soared until then, also seems to have been a cause of foreigners' net sales of domestic stocks.

Based on a comprehensive examination it can be assessed that the net stock sales by foreigners during the first half of this year were a result mainly of the strengthening of global risk aversion due to the expansions in external risks, more than of domestic factors. However, the monthly average net sales amount (net sales speed) during the February~June period, at 1.2 trillion won, is in general not so great in comparison with past cases[3] where it reached a maximum of 3.9 trillion won. The ratio of the net sales amount relative to total market capitalization (net sales intensity) was a mere 0.3% as well, lower than in both the past (0.4~4.2%) and in major Asian EMEs (0.5~1.0%).

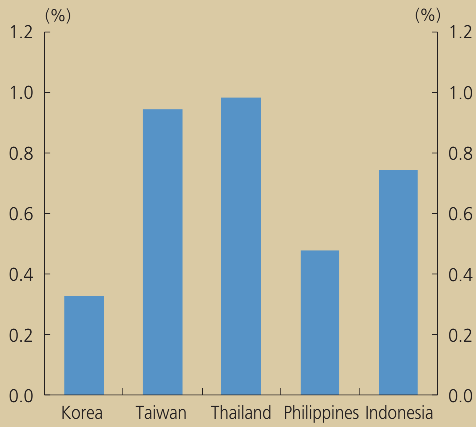
Cases of continued net sales of stocks by foreigners since 2005[1)]

(trillion won, %)

Period[2)]	Amount	Speed[3)]	Intensity[4)]
May 2006~Nov. 2006 (7)	14.7	2.1	2.0
Jun. 2007~Apr. 2008 (11)	42.8	3.9	4.2
Jun. 2008~Nov. 2008 (6)	23.2	3.9	2.9
Nov. 2013~Mar. 2014 (5)	4.7	0.9	0.4
Jun. 2015~Sep. 2015 (4)	9.2	2.3	0.6
Feb. 2018~Jun. 2018 (5)	6.2	1.2	0.3

Notes: 1) Based on analysis of periods during which net sales persisted for 4 months or longer.
2) Figures in parentheses indicate the numbers of months that the net sales persisted.
3) Monthly average net sales amount.
4) Ratio of net sales to total stock market capitalization.
Source: Koscom.

Intensities[1)] of foreigners' net sales[2)] in major Asian EMEs



Notes: 1) Ratios of net sales to total stock market capitalization.
2) Net sales between Feb. 2018 and Jun. 2018.
Source: Bloomberg.

The amount of net stock sales is small in comparison with past cases, in terms of both speed and intensity. But if major overseas risks such as the US-China trade dispute are not resolved going forward, the possibility cannot be ruled out where domestic financial market unease rises as foreigners' net stock sales continue despite Korea's favorable economic fundamentals. There is thus a need for close monitoring of the changes in international financial market conditions, as well as their effects.

3) Since 2005 there have been a total of five cases of net sales of stocks by foreign investors that have persisted for four months or longer.

II

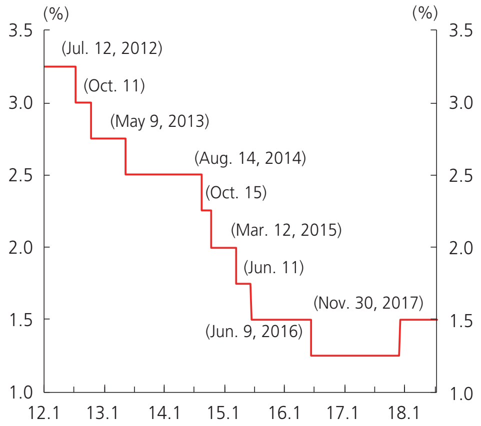
Conduct of Monetary Policy

1. Base Rate

Base Rate Operated at 1.50% per Annum

During the May through July 2018 period the Bank of Korea conducted its monetary policy in an accommodative manner, to ensure that the recovery of economic growth continues and that consumer price inflation is stabilized at the target level over a medium-term horizon. In this process it devoted attention to financial stability as well, and closely monitored changes in domestic and external conditions such as those related to Korea's trade with major countries, changes in the monetary policies of major countries' central banks, the upward trend of household debt, and geopolitical risks. Under this policy stance the Bank of Korea held the Base Rate at a level of 1.50% per annum throughout the period.

<Figure II - 1> **Bank of Korea Base Rate**[1)]



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

First, at the May 2018 meeting of the Monetary Policy Board the Bank maintained the Base Rate at its 1.50% per annum level. This was a decision made in consideration of the fact that domestic and external uncertainties were still high and demand-side inflationary pressures not strong, although it was forecast that the domestic economy would continue its solid growth. Facilities investment had slowed somewhat, but it was judged that the domestic economy was continuing its solid growth as consumption and exports were showing robustness. Employment had been sluggish, however, with the extent of increase in the number of persons employed remaining at a low level. Going forward it was expected that growth would be generally in line with the path forecast in April even though investment would slow, as consumption would continue its steady increase and exports their buoyant flows. Consumer price inflation had picked up to a level in the mid-1% range, due to increases in agricultural product prices, and was foreseen remaining at this level for some time before then gradually rising from the second half and approaching the target level. Core inflation was also at the mid-1% level, and expected to gradually rise. Meanwhile, the financial markets were generally stable, with the Korean won/US dollar exchange rate fluctuating within a narrow range, although long-term market interest rates had risen on the effects of increasing interest rates in major countries. Even though the pace of increase in housing prices had slowed, especially in some parts of Seoul and its surrounding areas, it was deemed necessary to continually watch for any changes in the related risks on the financial stability side, as household lending was still growing more rapidly than in normal years, led by unsecured loans.

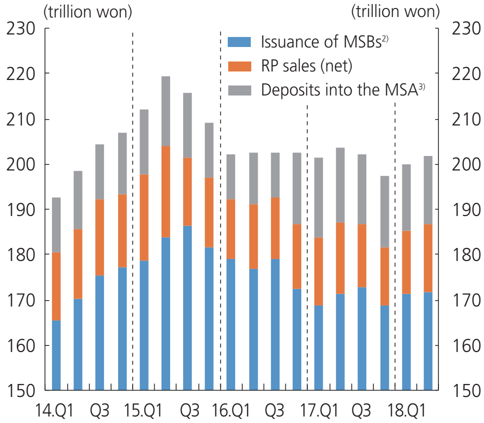
In the July meeting the Bank also kept the Base Rate at an annual rate of 1.50%. This decision was reached after consideration of the points that the domestic economy was expected to sustain its solid growth going forward, but that the uncertainties concerning the future growth path were high while the inflationary pressures on the demand side were still not large. Despite the ongoing adjustments in facilities and construction investment, it was judged that the domestic economy was continuing to grow steadily as consumption and exports appeared favorable. Employment remained sluggish, however, with the extent of increase in the number of persons employed sustaining low levels. With regard to the domestic economy going forward, it was forecast that investment would slow but that consumption would continue to increase steadily and exports would also remain favorable. In line with this it was expected that the rate of GDP growth during this year would be 2.9%, slightly lower than the figure forecast in April (3.0%), but that the domestic economy would continue to grow at the level of its potential growth rate. Consumer price inflation, despite a sharp rise in petroleum product prices, would show a rate in the mid-1% range owing to a slowdown in agricultural and livestock product price inflation, and persist at that level before gradually approaching the target level as it picked up due to the impacts of higher oil prices. The core inflation rate had fallen to the lower 1% level in June, but was expected to show a modest upward trend. The volatility of price variables in the domestic financial markets had meanwhile expanded, on the impacts of large changes in the international financial markets. The won/dollar exchange rate had risen to a large extent, under the influence of the dollar's strengthening, while stock prices and long-term market interest rates had fallen substantially due to increased uncertainties abroad related to factors such as the US-China trade dispute. The amount of household lending growth had lessened somewhat, but household loans were still increasing by greater amounts than in normal years and there was judged to be a need to closely monitor developments in this regard.

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 utilizing its open market operations instruments through issuance of Monetary Stabilization Bonds, purchases and sales of RPs, and deposits into the Monetary Stabilization Account.

In the second quarter the Bank conducted its open market operations so that the total amount of liquidity adjustment (average balance basis) was maintained at a level similar to that in the previous quarter, while flexibly adjusting the amounts operated under the different instruments in accordance with market conditions.

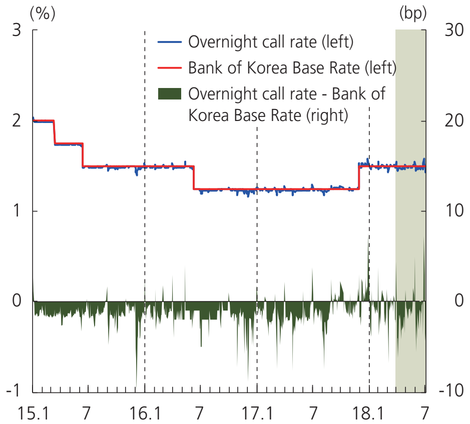
<Figure II - 2> **Liquidity adjustment[1] by means of open market operations**



Notes: 1) Quarterly average balance basis.
2) Excluding 3.48 trillion won (Mar.27, 2014-Mar.26, 2015) and 3.45 trillion won(Oct.16, 2015-Oct.14, 2016) of MSB sales to Korea Development Bank by negotiated transactions.
3) Monetary Stabilization Account.
Source: The Bank of Korea.

In line with this the call rate was stable at around the level of the Base Rate (1.50%).

<Figure II - 3> **Bank of Korea Base Rate and overnight call rate**



Source: The Bank of Korea.

2. Bank Intermediated Lending Support Facility

Bank Intermediated Lending Support Facility Utilized to Support Regional SMEs Experiencing Difficulties in Funding

To ensure that banks are active in extending loans to small and medium-sized enterprises, the Bank of Korea operates the Bank Intermediated Support Facility system through which it supports banks by supplying them funds at interest rates lower than the Base Rate. The Bank Intermediated Lending Support Facility ensures that funds are allocated to productive sectors, and contributes to boosting the effectiveness of monetary policy through the credit channel. 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.

In April it was decided to provide support through the Bank Intermediated Lending Support Facility to SMEs in the Gyeongnam region that were facing difficulties due to the restructuring of Sungdong Shipbuilding and Marine Engineering and STX Offshore & Shipbuilding.[23] To this end a support ceiling totaling 30 billion won was established, comprising 20 billion won from the Bank Intermediated Lending Support Facility's reserves, and 10 billion won of the

23) In March, in order to support SMEs in the Jeonbuk region that were experiencing difficulties in funding due to GM Korea's decision close its Gunsan plant, a support ceiling of a total of 40 billion won was established, comprising 25 billion won of the Bank Intermediated Lending Support Facility's reserves and 15 billion won of the Jeonbuk regional branch's funds.

Gyeongnam regional branch's funds.

The Bank Intermediated Lending Support Facility is being operated with a total ceiling of 25 trillion won, including 1.5 trillion won under the Support Program for Trade Financing, 6 trillion won under the Support Program for New Growth Engine Development and Job Creation, 11 trillion won under the Program for Stabilization of SME Lending, 0.5 trillion won under the Support Program for Small-scale Business Owners, and 5.9 trillion won under the Support Program for Regional Enterprises. The facility's interest rates range from 0.50% to 0.75% per annum, depending upon the program.

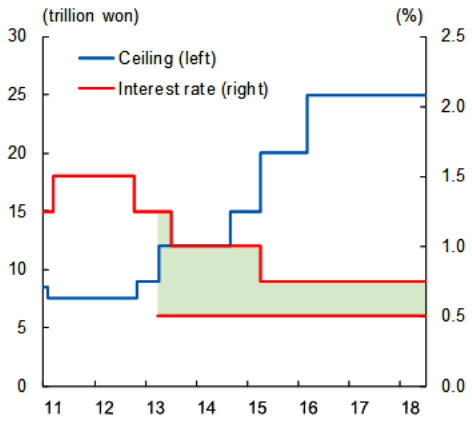
<Table II - 1> Programs under the Bank Intermediated Lending Support Facility

(trillion won, %)

Program	Ceiling	Interest rate
Support Program for Trade Financing	1.5	0.50
Support Program for New Growth Engine Development and Job Creation[1]	6.0	0.50
Program for Stabilization of SME Lending[2]	11.0	0.50~0.75
Support Program for Small-scale Business Owners	0.5	0.50
Support Program for Regional Enterprises	5.9	0.75
Total[3]	25.0[3]	–

Note: 1) Support Program for High-tech and Other Start-up SMEs was expanded and reorganized into 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, which can be operated when necessary.
Source: The Bank of Korea.

<Figure II - 4> Ceiling and interest rate of Bank Intermediated Lending Support Facility



Source: The Bank of Korea.

3. Financial Stability

In any case where financial imbalances continue they can ultimately cause a deterioration in macroeconomic stability, and so in the conduct of monetary policy there is a need to consider financial stability as well. Based on this standpoint, the Bank of Korea has devoted efforts to achieving financial and foreign exchange market stability, to identifying potential financial system risk factors at an early time, to strengthening the global financial safety nets, and to enhancing payment and settlement system stability and efficiency.

Efforts to Achieve Financial and Foreign Exchange Market Stability Continued

The Bank of Korea continued its efforts for financial and foreign exchange market stability in response to changes in conditions in Korea and abroad. While on the one hand regularly monitoring the movements of major price variables and global funds, in- and outflows of foreigners' portfolio investment funds, and the foreign currency funding conditions of financial institutions, the Bank also promoted financial and foreign exchange market stability by responding actively whenever any possibilities of expanded market volatility arose, through activation of its emergency response system.

In May and June the Bank convened meetings of its 「Monetary and Financial Task Force」 immediately after the FOMC meetings, and examined the effects that changes in the US Federal Reserve's monetary policy would have on the financial and foreign exchange markets. Notably, when the Federal Reserve raised its policy rate in June, the Bank closely examined the effects that the widening of the negative gap between Korean and US policy rates would have on the in- and outflows of funds of foreign investors. When the North Korea-US summit meeting was held it monitored the responses to and assessments of the meeting's outcomes in financial markets in major countries in real time, in collaboration with its overseas representative offices.

Efforts for Preemptive Identification of and Responses to Potential Financial System Risks

The Bank continued its efforts for the early identification of potential risks within the financial system.

In its June 「Financial Stability Meeting」 the Bank closely assessed the vulnerabilities in sectors such as household and corporate credit and the asset markets, and examined the financial system's resilience to domestic and external shocks. In connection with household loans it closely analyzed the borrower-type-specific features of the unsecured household loans that have been growing so rapidly of late, and the factors behind their increase. Furthermore, while assessing the soundness of the unsecured household loans of the different financial sectors, the Bank also analyzed the effects that the decline in leasehold deposit prices is having on the housing rental market and on household loan soundness. It also reviewed the stress test results of non-bank financial institutions,[24] which examined their resilience to macroeconomic shocks such as rises in interest rates and economic slowdowns. The Bank in addition examined the current status of FinTech, which has been expanding rapidly recently, and analyzed its effects on financial stability.

Meanwhile, together with the government and the supervisory authorities, the Bank continued its efforts to respond to domestic and external factors posing risks to financial stability such as the monetary policy normalization by the US Federal Reserve and the buildup of household debt. Moreover, while on the one hand attending the「Macroeconomic Finance Meetings」to analyze the effects of the Federal Reserve's policy rate hikes and seek measures for responding, it on the other hand examined the household debt situation and the effects on it stemming from the related government measures, at meetings of the「Consultative Group for Managing Household Debt」.

Efforts to Strengthen Global Financial Safety Nets Continue

The Bank of Korea attended meetings of international organizations and consultative bodies including the BIS, the G20 and the IMF, and discussed major pending issues such as the changes in global financial and economic conditions and their effects, protectionism, and so on. In particular, during the BIS Governors' Meeting (May) and Annual Meeting (June) it participated in the discussions of changes in major countries' monetary policy stances as well as global financial market conditions.

Meanwhile, as part of its efforts to strengthen the multi-layered foreign exchange safety nets, the Bank also participated actively in the discussions focused on improving the regional financial safety net. In particular, as the central bank of one joint chair country of this year's ASEAN+3 Finance Ministers' and Central Bank Governors' Meeting,[25] the Bank of Korea oversaw the revision of the written agreement on CMIM (Chiang Mai Initiative Mulitilateralization), the region's multilateral currency swap arrangement.[26] In line with this, at this meeting in May the Bank contributed to enhancing CMIM effectiveness by leading countries in the region to an agreement on measures for strengthening the fund support system, through means such as expanding the period of fund support, strengthening the cooperation with the IMF, and imposing conditions for the granting of credit.

24) The interconnectedness among banks and non-bank financial institutions (NBFIs), as well as that between NBFIs themselves, is also deepening, while the share of NBFIs in the financial system is gradually increasing. In line with this the effects that NBFIs are having on systemic risk are growing as well. In consideration of this, the Bank of Korea divided NBFIs into four sectors - insurance companies, non-bank depository institutions (mutual credit cooperatives and savings banks), securities companies, and credit card companies - and developed a stress test model for each sector (June 2018). For details on the Bank of Korea's stress tests of NBFIs, refer to the June 2018「Financial Stability Report」.

25) This meeting is chaired jointly by one of the 10 ASEAN countries and one country from among Korea, China and Japan, with the countries taking turns as chairs in serial order. Korea and Singapore are the joint chair countries this year.

26) This was done as part of the first Periodic Review of CMIM since its launch in 2010.

Enhanced Safety and Efficiency of Payment and Settlement Systems

The Bank of Korea continued its efforts to enhance the safety and efficiency of the payment and settlement systems in response to changes in domestic and external conditions.

First, in order to prevent temporary liquidity shortages of BOK-Wire+ participants from spreading to cause settlement delays for other institutions, the Bank supplied them with intraday liquidity support as needed. It provided funds to banks via collateralized intraday overdrafts, and to financial investment companies through sales of intraday repurchase agreements (RPs), so as to support these institutions by covering their temporary shortages of settlement funds. During the January to June period the Bank provided BOK-Wire+ participants with a daily average of 2.3 trillion won[27] in intraday liquidity support to resolve their temporary settlement fund shortages.

<Table II - 2> **Funds covering temporary intraday liquidity shortages[1]**

(billion won, %)

	2016	2017	2018 Jan. - Jun.	(Rate of change)
Intraday overdrafts[2]	380.2	318.2	336.3	(5.7)
Intraday RPs	2,449.8	2,055.9	2,010.5	(-2.2)
Total	2,830.0	2,374.1	2,346.8	(-1.1)

Notes: 1) Daily average basis.
2) Based on average balance of net intraday overdraft loans (Amount of intraday overdraft loans used - Outstanding balance of deposits only for settlement).
Source: The Bank of Korea.

The Bank continued its efforts to ensure smooth domestic implementation of the 「Principles for Financial Market Infrastructures (PFMI)」,[28] the international standards in the field of payment and settlement, and of the 「Guidance on Cyber Resilience for Financial Market Infrastructures」.[29] Related to the significant payment and settlement systems operated by the Korea Exchange, the Bank evaluated their compliances with the PFMI and their cyber risk response systems in April, and recommended some improvements in areas where they were found necessary. Moreover, through joint examinations with the Financial Supervisory Service of two financial investment companies between April and June, the Bank examined the companies' compliances with the related regulations and their managements of settlement risks, and recommended that one company which needed improvements in areas such as operational risk management take supplementary measures.

The 「Virtual Currency and CBDC (Central Bank Digital Currency) Joint Research T/F」, which the Bank of Korea established in January, examined the effects that digital currencies are having on the payment and settlement systems as well as the financial system as a whole. The T/F is also conducting research on issues related to CBDCs, which are being discussed actively in international organizations such as the BIS and by some central banks.

27) Between January and June of 2018 the amount of intraday support provided for institutions suffering temporary settlement fund shortages was 90.8 billion won less than that during the same period last year, in consequence of a reduced volume of transactions in intraday RPs of securities such as Treasury bonds.
28) Following the identification after the global financial crisis of the needs to expand the over-the-counter derivatives market infrastructures and strengthen the international standards for the operation of financial market infrastructures, the BIS's 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.
29) In June 2016 CPMI-IOSCO, in an effort to induce the heightening of financial market infrastructure cyber resilience, established additional guidelines related to PFMIs 2 (Governance), 3 (Framework for the comprehensive management of risks), 8 (Settlement finality), 17 (Operational risk) and 20 (FMI links).

Potential Financial System Risks Examined through Joint Financial Institution Inspections

In order to examine potential risks within the financial system, the Bank of Korea strengthened its joint examinations of financial institutions carried out with the Financial Supervisory Service, as well as its regular monitoring of them, while also devoting efforts to strengthening its communication with financial institutions and domestic and overseas supervisory authorities.

During the April to June period the Bank conducted sectoral examinations related to the situations of corporate lending by major commercial banks and regional banks, and the potential related risks, and examined banks' management of risks stemming from marginal firms and their situations related to the restructuring of such firms.

<Table II - 3> **Joint examinations[1] with Financial Supervisory Service**

(times)

2014	2015	2016	2017	2018 Jan. - Jun.
7	7	6	6	2

Note: 1) Examinations of banks.
Source: The Bank of Korea.

It was active in carrying out regular monitoring in order to identify factors impeding financial stability due to changes in financial regulations and market conditions, and to collect and analyze information related to changes in financial institutions' operating behaviors.

Moreover, the Bank provided the results of its joint examinations of financial institutions to the government and the Financial Supervisory Service, for reference in formulating their policies, and delivered them to the financial institutions concerned to ensure that they were reflected in their management.

Besides this the Bank of Korea participated in meetings of the Supervisory Colleges and Crisis Management Groups hosted by major countries' supervisory authorities, where it shared information on pending financial issues and took active part in the international discussions related to financial institution examinations. Moreover, to facilitate information sharing and business cooperation with major countries' central banks and supervisory institutions through the Supervisory Colleges, the Bank of Korea revised in April the Monetary Policy Board's regulations on exchanges of information related to Article 94 of the Bank of Korea Act.

III

Future Monetary Policy Directions

1. External Conditions[30]

Solid World Economic Growth Expected to Continue

It is forecast that the global economy will continue its solid growth, thanks to improvements in employment conditions in major countries and to increases in consumption and investment.

<Table III - 1> **World economic growth outlook**[1]

(%)

	2016	2017	2018^e	2019^e
World	3.2	3.7	3.9	3.9
Advanced economies	1.7	2.4	2.4	2.2
(US)	1.5	2.3	2.9	2.7
(Euro area)	1.8	2.4	2.2	1.9
(Japan)	1.0	1.7	1.0	0.9
Emerging market and developing economies	4.4	4.7	4.9	5.1

Note: 1) Based on IMF World Economic Outlook (Jul. 2018); 2016 and 2017 statistics for the US, Japan and the euro area are from their own representative agencies.
Sources: IMF, Individual countries' published statistics.

The United States is expected to continue to grow steadily, driven by buoyant domestic demand due to the solid labor market conditions and the effects of fiscal expansion, although there is a possibility of the increase in protectionism becoming a downside risk. It is forecast that the euro area economy will continue to grow faster than its potential growth rate, thanks to improvements in the labor markets and to robust consumer and corporate sentiments. There are however some potential downside risks, due to the trade conflict with the US and to political uncertainties. Japan is expected to sustain its modest pace of growth, as exports are foreseen increasing due to the expansion in global demand, and facilities investment is also expected to show robustness due to a shortage of supply capacity and to improvements in corporate profitability.

The stable growth in China seems likely to continue, although the growth rate will slow somewhat on the impacts of the continued deleveraging policy and the mutual impositions of tariffs between the US and China. It is forecast that India will maintain its steady growth, driven by an improvement in consumption and expanded fiscal spending, and that the ASEAN-5 countries will do so as well thanks to robust exports. The economies of Brazil and Russia appear likely to gradually recover, due to increases in raw materials exports and recoveries in consumer sentiments.

<Table III - 2> **Outlook for economic growths[1] of EMEs**

(%)

	2016	2017	2018^e	2019^e
China	6.7	6.9	6.6	6.4
Brazil	-3.5	1.0	1.8	2.5
Russia	-0.2	1.5	1.7	1.5
India[2]	7.1	6.7	7.3	7.5
ASEAN-5[3]	4.9	5.3	5.3	5.3

Notes: 1) Based on IMF World Economic Outlook (Jul. 2018); 2016 and 2017 statistics for the individual countries are from their own representative agencies.
2) Fiscal year basis (April of current year to March of next year).
3) Indonesia, Malaysia, the Philippines, Thailand and Vietnam.
Sources: IMF, Individual countries' published statistics.

30) Sections "1. External Conditions," "2. Growth Forecast" and "3. Price Forecast" in Part III have been drawn up based on the Bank of Korea's 「Economic Outlook Report」 released on July 12, 2018.

International Oil Prices Forecast to Remain Above 70 US Dollars to the Barrel

Amid a mix of upside factors such as increased demand for crude oil due to the improvements in the global economy and reduced production in Venezuela, and downside factors including increases in production in the US and Saudi Arabia, it is forecast that international oil prices will for the time being remain above 70 dollars to the barrel. However, uncertainties related to the strength and effects of the US sanctions on Iran and to the possibility of an additional increase in production by OPEC persist.

<Table III - 3> **Outlook for international oil prices**[1]

(USD/barrel)

	2018e		2019e	
	H1	H2	H1	H2
<Brent>				
CERA (Jun. 25)	70.7	77.7	74.4	74.3
OEF (Jun. 28)	70.4	80.0	79.5	74.5
EIA (Jun. 12)	70.4	71.6	68.5	67.0

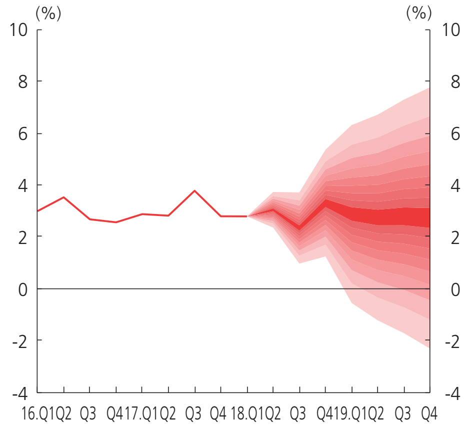
Note: 1) Period-average; figures in parentheses refer to dates of forecasts.
Sources: CERA, OEF, EIA.

2. Growth Forecast

Steady Domestic Economic Growth Forecast to Continue

The domestic economy appears likely to show a growth rate of 2.9% this year. It is foreseen sustaining steady growth even despite slowing investment, as exports will continue their favorable flows in line with the buoyancy of the world economy and consumption will improve as well. It is forecast that the domestic economy will grow at the level of its potential growth rate next year also, as exports and consumption continue to increase. With regard to the contributions to growth of the different expenditure sectors, it is expected that the contribution of exports will rise and that of domestic demand will fall.

<Figure III - 1> **Economic growth fan chart**[1)2)]



Notes: 1) Year-on-year; figures are the forecasts as of Jul. 2018.
2) The darkest band in the center of the chart represents a 10% confidence interval including the central projection, and the other colored bands cover confidence intervals ranging from 20% to 90% as the shading lightens.
Source: The Bank of Korea.

Looking at the various sectors of the economy, private consumption seems likely to continue its gradual improvement, thanks to the robust consumption sentiment and to the government's policies. The consumer sentiment index has fallen recently, but is still maintaining a high level, and the forecast for consumption expenditures in particular is positive. Furthermore, it is expected that the execution of the supplementary budget to boost youth employment, and the policies of raising the basic pension payments and paying childcare allowances will also contribute to a strengthening of the income base in the second half. However, the delay in improvements in employment conditions and the household loan repayment burdens appear likely to limit the pace of private consumption growth.

It is projected that the pace of growth in facilities investment will slow considerably this year, and then continue to show a low rate of increase next year also. The facilities investment gap was considerably above its long-term average from last year through the first quarter of this year, and it is thus foreseen that the adjustment pressures will expand for some time going forward. Intellectual property products investment is expected to maintain a gradual increase, driven by expanded demand for new technology-based software, but the rate of its growth is expected to fall slightly due to slowdowns in the global IT economy and in companies' rates of sales growth. It is meanwhile forecast that construction investment will continue in its phase of adjustment, as the pace of increase in building construction slows greatly and civil engineering continues to contract.

Exports are expected to continue their gradual growth, as world trade is foreseen maintaining its robust upward trend due to continuing growth in the world economy and to expansions in investment in major countries. Downside risks do however remain, including that of a strengthening of protectionism. The pace of increase in imports is expected to slow, as the extent of growth in capital goods imports lessens greatly due to the slowdown in facilities investment. It is forecast that the current account will remain in surplus, although the surplus will shrink compared to that of last year due to a decline in the goods account surplus and to sluggishness in the primary income account.

<Table III - 4> **Economic growth outlook**[1)]

(%)

	2017	2018e			2019e		
		Year	H1	H2	Year	H1	H2
Real GDP	3.1	2.9	2.9	2.8	2.8	2.8	2.8
Private consumption	2.6	2.7	3.1	2.2	2.7	2.5	2.8
Government consumption	3.4	4.6	5.4	3.9	4.1	3.4	4.7
Facilities investment	14.6	1.2	1.8	0.6	1.7	0.8	2.7
Intellectual property products investment	3.0	2.7	2.8	2.6	2.6	2.7	2.5
Construction investment	7.6	-0.5	0.7	-1.5	-2.2	-2.6	-1.8
Goods exports	3.8	3.5	3.0	4.0	3.5	3.9	3.1
Goods imports	7.4	3.0	2.5	3.4	2.9	2.1	3.7

Note: 1) Year-on-year; figures are the forecasts as of Jul. 2018.
Source: The Bank of Korea.

With regard to the future growth path there is a mix of both upside and downside risks, with the former including the effects of expansionary fiscal policies and accelerated paces of growth in investment in major countries, together with improvements in domestic demand thanks to the government's economic stimulus measures, and the latter risks those of worsening export conditions in consequence of expanded protectionism, and of increased financial market volatility due to accelerations in the monetary policy normalizations in major countries.

3. Price Forecast

Consumer Prices Forecast to Rise by 1.6%

It is forecast that consumer prices will rise by 1.6% during this year, and expected that their pace of increase will then accelerate to 1.9% next year.

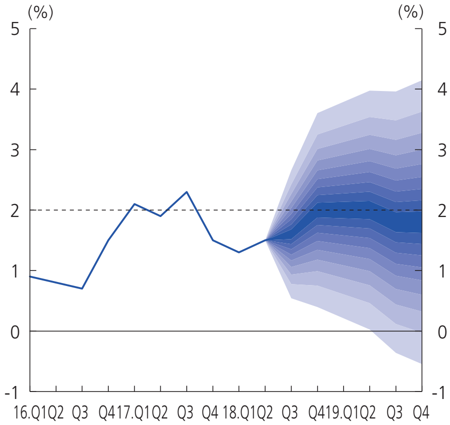
Looking first at the supply side, amid the forecast that international oil prices will remain above the 70 dollars-to-the barrel level for the time being, owing to concerns about supply snags in consequence of geopolitical risks, it is projected that the rate of increase in agricultural product prices will fall. On the demand side, while the percentage GDP gap is maintaining a slightly positive figure, the pace of increase in nominal wages is expected to be higher than in normal years due to improved corporate earnings and to a greater degree of increase in regular wages. It is forecast that the upward pressures on public utility charges will rise in the second half of this year and the beginning of next year, due to increases in international oil prices and labor costs. The slowing pace of growth in housing rental prices is meanwhile expected to continue, as the volume of new apartment units available expands.

The rate of core inflation (index with food and energy products excluded), from which the effects on prices due to irregular supply-side factors are removed, is expected to be 1.4% during this year and 1.9% next year.

The upside and downside risks to the

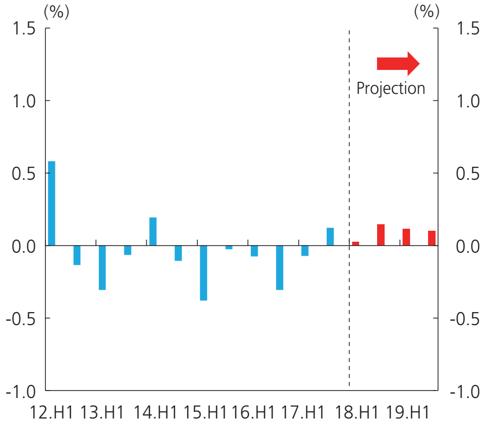
future inflation path are mixed. Some of the main upside risks are a trend of rising international oil prices due to the persistence of geopolitical risks in the Middle East, and increases in import prices in line with weakening of the Korean won. The downside risks meanwhile include those of a fall in international oil prices owing to increased crude oil production, and of greater deflationary pressures on service prices as a result of the expanded provision of welfare services related to education and medical care.

<Figure III - 2> CPI inflation fan chart[1)2)]



Notes: 1) Year-on-year; figures are the forecasts as of Jul. 2018.
2) The darkest band in the center of the chart represents a 10% confidence interval including the central projection, and the other colored bands cover confidence intervals ranging from 20% to 90% as the shading lightens.
Source: The Bank of Korea.

<Figure III - 3> Percentage GDP gap[1)]



Note: 1) Figures are the forecasts as of Jul. 2018.
Source: The Bank of Korea.

<Table III - 5> Inflation outlook[1)]

(%)

		2017	2018			2019[e]		
			Year[e]	H1	H2[e]	Year	H1	H2
CPI inflation		1.9	1.6	1.4	1.8	1.9	2.0	1.8
Core Inflation	CPI excluding food & energy	1.5	1.4	1.3	1.6	1.9	1.9	1.9
	CPI excluding agricultural products & oils	1.5	1.4	1.3	1.6	1.9	1.9	1.8

Note: 1) Year-on-year; the figures are forecast as of Jul.2018.
Source: The Bank of Korea, Statistics Korea.

4. Major Considerations

Among the major items that will have to be considered in the operation of monetary policy, we have examined the factors behind the changes in the inflation dynamics in Korea, fiscal policy, and the financial unrest in emerging market countries.

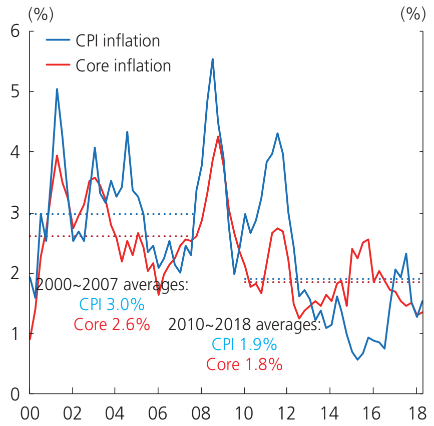
A. Factors Behind the Changes in Inflation, and Implications

There appear to have been substantial changes in the inflation dynamics in Korea since the global financial crisis, with the long-term trend of inflation as indicated by major price indicators falling and the differences in volatility among the various inflation indicators widening. This is thought to have been a result of a complex interplay of factors such as the decline in global inflation, the drop in the Korean won exchange rate, constraints on the raising of public utility charges, and the weakening relationship between the economic cycle and prices. Recently, however, it is judged that there have been some shifts in these factors driving the changes in Korean inflation. Amid a continuing modest upward trend in global inflation, the Korean won/US dollar exchange rate has also risen and there is a possibility of this causing the inflation of goods prices to pick up. There is also a possibility of the inflation of service prices gradually accelerating, due to plans to raise public prices and to demand-side pressures in line with the continuing economic growth. It is therefore judged that, although the uncertainties concerning the forecast inflation path are high, the consumer price inflation rate will gradually rise and approach the target level (2.0%) going forward.

It is estimated that the inflation dynamics in Korea have changed substantially since the global financial crisis, with the long-term trend inflation as indicated by major price indicators falling and the differences in volatility among the various inflation indicators widening. The rate of consumer price inflation has fallen from an average level of 3.0% per year over the 2000 to 2007 period to an average of 1.9% since 2010, while the core inflation rate has also fallen from 2.6% to 1.8%. With regard to the inflation rate volatilities, the differences among the major indicators were not great prior to the crisis, but the volatility of the consumer price inflation rate has expanded since then while that of the core inflation rate has in contrast declined.[31)]

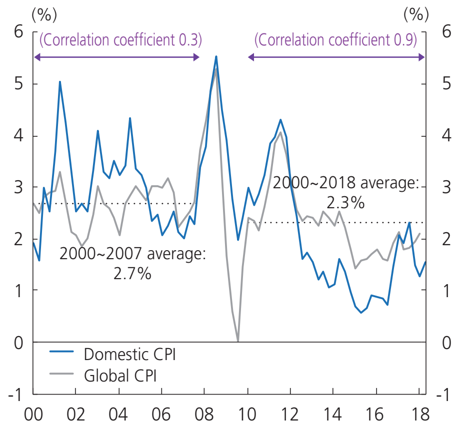
31) The standard deviation of the quarterly consumer price inflation rate has increased from 0.8% point prior to the crisis to 1.1% points since, but the standard deviation of the core inflation rate has fallen from 0.7% to 0.4% points during the same period of time.

<Figure III - 4> CPI and core[1] inflation[2]



Notes: 1) CPI excluding food and energy prices.
2) Year-on-year.
Source: Statistics Korea.

<Figure III - 5> Domestic and global CPI inflation[1][2]



Notes: 1) Year-on-year.
2) Global CPI inflation for 2018 as of the first quarter.
Sources: Individual countries' statistical offices.

Behind these changes in the Korean inflation dynamics seems to be a complex interplay of diverse factors. First, domestic inflation has slowed as its co-movements with the reduced global inflation, those of goods price inflation in particular, have intensified. The global inflation rate, which had been 2.7% before the crisis, has fallen to 2.3% since then,[32] and during the same period the coefficient of correlation between domestic and global consumer price inflation has risen greatly from 0.3 to 0.9.[33]

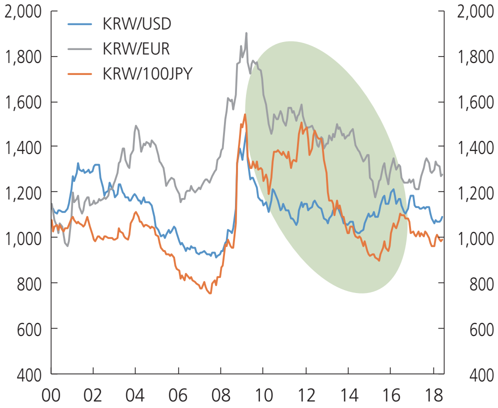
Second, the decline in the exchange rate of the Korean won against major currencies since the financial crisis has also contributed to the slowdown in inflation. The drop in the exchange rate is causing deflationary pressures through decreases in the Korean won-denominated prices of imports,[34] and during most of the time since the crisis the won-basis import product inflation rate has been below the rates of inflation based on the contract currencies.

32) Estimated based on the CPI inflation rates since 2000 of the top 20 countries of origin of Korea's imports (China, Japan, the US, Australia, Germany, Taiwan, Indonesia, Malaysia, Russia, Vietnam, etc.).

33) According to the BIS (2017), major countries are also experiencing similar intensifications of the co-movements between domestic and global prices, and this is assessed to be a result mainly of factors such as expansion in trade volumes, and the increases in trading of intermediate goods in line with the deepening global division of labor in production.

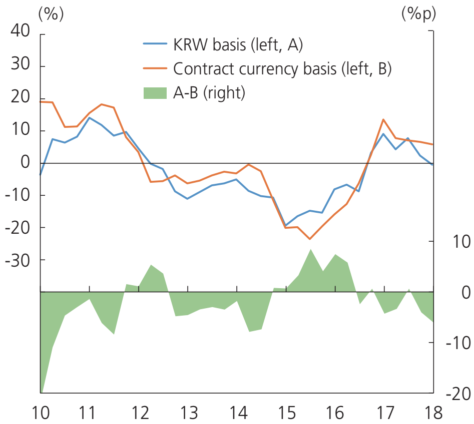
34) Inflation model analysis finds that the effects of the exchange rate on domestic inflation have weakened compared to the past, although they are estimated to be relatively large compared to those of other supply-side factors such as oil and agricultural product prices.

<Figure III - 6> Major exchange rates



Source: The Bank of Korea.

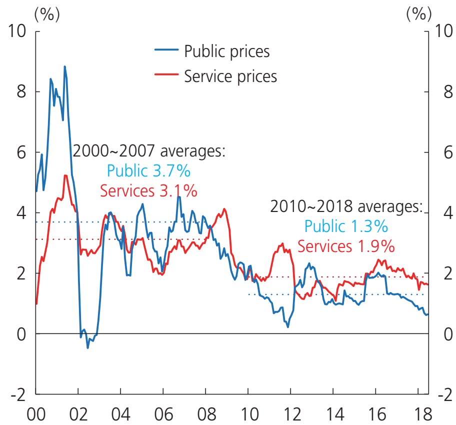
<Figure III - 7> Import price inflation[1)]



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

Third, the slowdown in the rate of inflation of public prices[35)] has constrained the increases in service prices. The rate of public price inflation has fallen from 3.7% prior to the crisis to 1.3% since, driven mainly by education, health care and transportation prices,[36)] and it is analyzed that this has caused a slowdown of 1.0% point on average in the overall service price inflation rate.

<Figure III - 8> Public and service price inflation[1)]



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

Fourth, the relationship between growth and inflation has weakened since the global financial crisis, and in line with this it appears that the effects on inflation due to the economic recovery are limited compared to those in the past. Empirical analysis shows that, since the crisis, the influence of the GDP gap on major consumer price inflation indicators rates has declined.[37)] With regard to core inflation, however, it is analyzed that the effect of growth on prices

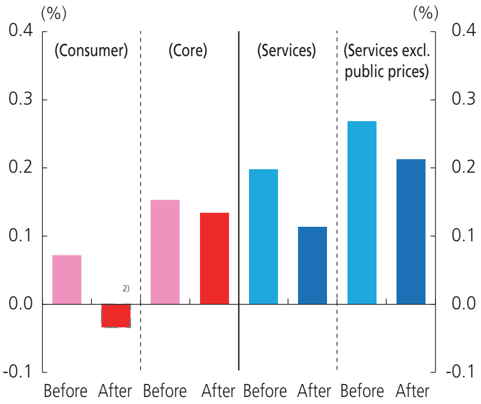
35) This concept consists of public service charges, together with expenses for education and healthcare from among private service charges (public prices account for 22.3% of all consumer prices).

36) Factors that have constrained the inflation of education-related prices include the introduction of free education at specialized vocational high schools, and the cuts in university tuition (since 2011) and in fees for childcare facilities use (January 2017). Factors holding price inflation down in healthcare include reductions in hospitalization and dental fees (July 2017), and among those holding it down in transportation are reductions in train fares (June 2017) and cuts by some local governments in their city bus fares (since H2 2017).

37) It is estimated that the slope of the Korean Phillips Curve has flattened since the financial crisis, owing to changes in the labor market structure, to intensified competition in line with globalization, and to the weakening of inflation expectations. For more details refer to the November 2017 「Monetary Policy Report」, “Changes in the Relationship between Growth and Prices, and Their Causes” (p. 40).

itself still holds, while it is estimated that the effect of growth on services prices becomes greater when public prices are excluded.

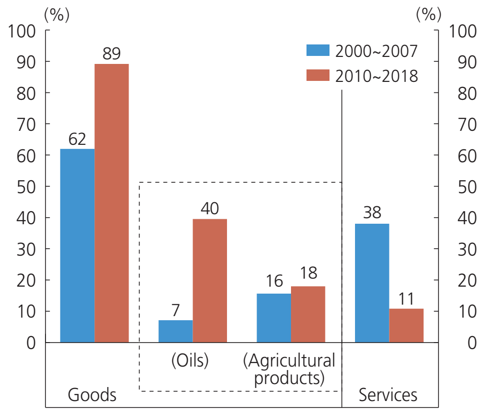
<Figure III - 9> GDP gap's effects on major inflation indicators, before and after Global Financial Crisis[1]



Notes: 1) Based on inflation model comprising inflation rate and GDP gap in previous quarter, import prices, KRW/USD exchange rate, and agricultural product prices, estimated using generalized method of moments (GMM); statistically significant at 1% level.
2) Not statistically significant at 10% level.
Source: Bank of Korea estimates.

Meanwhile, the expansion in volatility of the consumer price inflation rate since the global financial crisis appears to have been driven mainly by the inflation of international oil and of agricultural product prices. The volatility of domestic petroleum product prices has grown greatly as international oil prices have fluctuated to large extents since the global financial crisis. Agricultural product prices have also fluctuated considerably, due to increased occurrences of extreme weather conditions such as abnormal cold and heat waves. The rates of contribution to the volatility of consumer price inflation of international oil prices and agricultural product prices are 40% and 18% respectively.

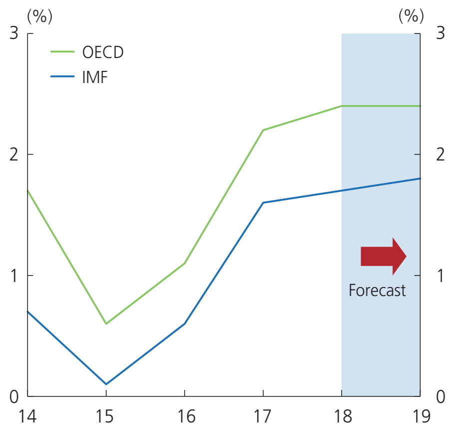
<Figure III -10> Decomposition of consumer price volatility[1]



Note: 1) Proportions of factors' variances relative to total CPI inflation variance over the periods concerned.
Sources: Statistics Korea, Bank of Korea estimates.

Recently, however, it is judged that there have been some shifts in these factors driving the changes in inflation. First, it is forecast that global inflation will maintain its modest pace of increase. It appears likely that the increase in demand-side pressures in line with the economic recovery, the continual rise in international oil prices, and the expansions in wage hikes in major countries will cause global inflation to accelerate.

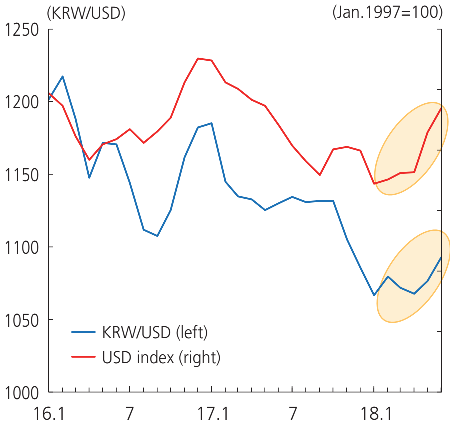
<Figure III -11> Global inflation forecasts[1)2)]



Notes: 1) Year-on-year.
2) Based on consumer prices; IMF forecast based on IMF's median inflation rate for advanced economies.
Sources: IMF, OECD.

It appears that the upside risks on the exchange rate side have grown as well. The KRW/USD exchange rate has risen to a considerable extent recently, owing to concerns about an acceleration in interest rate hikes by the US Federal Reserve, and about the strengthening of protectionism.

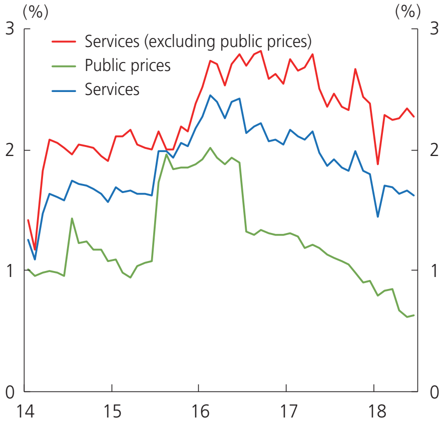
<Figure III -12> KRW/USD exchange rate and US dollar index



Sources: The Bank of Korea, Bloomberg.

It is in addition judged that there are both inflationary and deflationary risk factors affecting service prices, but that the inflationary pressures will gradually grow. With regard to public service charges, which have contributed to the slowdown in the rate of service price increase since 2016, there are possibilities that some of them will rise from the second half of this year.[38] Moreover, given the demand-side inflationary pressures in consequence of the ongoing solid economic growth, a gradual acceleration is expected in the pace of increase in service prices, which have a high degree of correlation with the economic cycle.

<Figure III -13> Rates of major service price inflation[1]



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

The assessment of recent inflation conditions in Korea, based on the discussions presented above, is that there is a possibility of goods price inflation accelerating as the KRW/USD exchange rate rises while global inflation continues to gradually pick up. In the case of service prices, there is a chance of their pace of increase gradually accelerating, due to the plans for hikes in public service charges and to demand-side inflationary pressures in line with the continuing economic growth. It is thus forecast that the rate of consumer price inflation will gradually approach the target level from the second half of this year, as the pace of inflation picks up. There is however a need to pay attention to the still high uncertainties surrounding inflation conditions related to the domestic and overseas economies, to international oil prices, to the exchange rate and to the prices of agricultural products.

38) Discussions are taking place of raising city gas charges and postal fees (July 2018), the minimum taxi fare and some city bus and subway fares of local governments (H2 2018), water supply fees (July 2018~beginning of 2019), and subway fares in Seoul (beginning of 2019).

B. The Recent Fiscal Policies

An analysis of the government's fiscal policies, using diverse indicators such as various fiscal balances and the Fiscal Impulse Measure, reveals the following. First, a detailed look at the fiscal balance finds fiscal operations during the last year to have been expansionary, as the structural fiscal balance and the fiscal balance with the social security funds excluded showed deficits even though the consolidated fiscal balance ran a surplus thanks to favorable tax revenues. The contribution of fiscal policy to GDP, as indicated by the Fiscal Impulse Measure, was slightly negative during the first through the third quarters of last year, but turned positive from the fourth quarter as fiscal spending increased substantially. In the future also it appears likely that fiscal operations will continue to contribute to growth, as fiscal expenditures are expected to steadily expand.

To enhance the accuracy of economic forecasting, the effects of the government's fiscal activities on economic growth need to be measured accurately. Fiscal balances such as the one with social security funds excluded and the structural fiscal balance, which are at present mainly referred to, are convenient for evaluating the government's policy stance, but have limitations in that they do not consider differences in economic effects in line with the composition of expenditures in the different individual business areas. Moreover, the degrees of contribution to GDP of government consumption and government investment in the national accounts are useful for identifying the effects that fiscal policy is having on growth, but do not consider the tax revenues, and have limitations in that they also omit the effects that transfer payments to households have on private consumption.

Meanwhile, the Fiscal Impact Measure,[39] developed and used by the US Federal Reserve and other institutions, separately calculates the respective effects on GDP of the government's fiscal activities such as tax revenues and fiscal expenditures, which it then weight averages to estimate the overall effects of fiscal activities on GDP. It can thus make up for some of the limitations of the existing indicators, although differently from the fiscal account it has the shortcoming of relying not on observed figures but on tax/expenditure multipliers.

For this article, therefore, we use diverse indicators including the fiscal account and the Fiscal Impact Measure, and examine the recent government fiscal policy stance in Korea.

First, regarding last year's fiscal policy as seen through the fiscal balance, it appears that the government maintained an expan-

39) A value of 1 for this standardized index means that fiscal activities cause GDP to rise by 1% point. It should be kept in mind that fiscal multipliers estimated separately based on the Bank of Korea's fiscal DSGE model were used in the index calculation. Moreover, in order to mitigate temporary volatilities in fiscal activities and identify the underlying trends, the index was calculated using 3-quarter moving average values.

sionary stance even though the consolidated fiscal balance ran a surplus due to solid tax revenues, as the fiscal balance with social security funds excluded and the structural fiscal balance recorded deficits. However, with the extents of these deficits having narrowed compared to 2016, the degree of fiscal expansion declined.

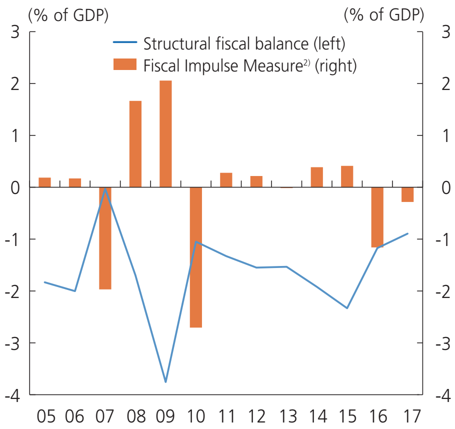
<Table III - 6> Recent fiscal balances

(%)

	2016	2017
Rate of tax revenue increase	11.3	9.4
Rate of fiscal expenditure increase	4.4	7.2
Fiscal balance[1]	1.0	1.4
Fiscal balance excluding social security fund balance[1]	-1.4	-1.1

Note: 1) Percentages of GDP.
Source: Ministry of Strategy and Finance.

<Figure III -14> Structural fiscal balance[1]

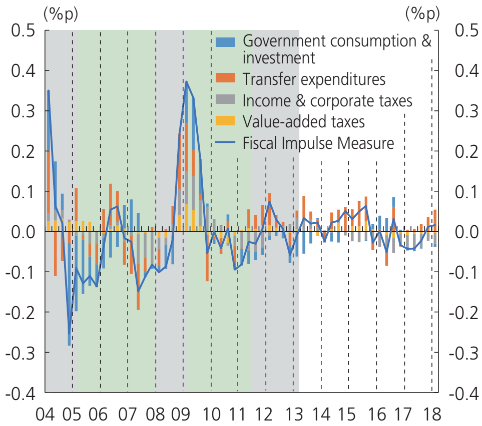


Notes: 1) The fiscal balance excluding the social security fund balance, minus changes in fiscal revenues and expenditures due to economic fluctuations.
2) Defined by the IMF as the year-on-year change in the structural fiscal balance, the Fiscal Impulse Measure is used to evaluate the fiscal policy stance relative to previous years.
Source: The Bank of Korea.

Meanwhile, a look at the economic effects of fiscal expenditure through the Fiscal Impact Measure, with the individual business areas reflected, finds that the effects of fiscal policy on GDP last year were somewhat smaller than their past averages. The Fiscal Impact Measure recorded slightly negative figures during the first through the third quarters of last year, and it appears that the strong income and corporate tax revenues were the main factor behind this. The slight difference between the assessment using the Fiscal Impact Measure and that based on the fiscal balance is a result of the fact that the Fiscal Impact Measure reflects the economic effects of the government's expenditures in individual business areas. In particular, the contribution of government expenditure to GDP is estimated to have fallen compared to the past, reflecting the facts that the proportion of capital expenditure, which has a large multiplier effect, declined, and that of transfer payments, which have a small multiplier effect, expanded. However, the contribution to GDP of government fiscal activities has turned positive since the fourth quarter of last year, as fiscal expenditures have risen greatly.[40]

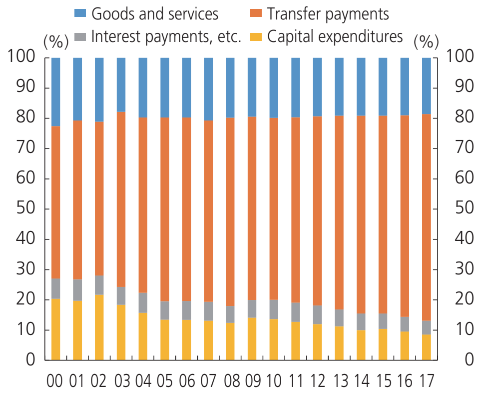
40) During the January to April period of this year the pace of increase in tax revenues slowed somewhat (8.6% → 4.3%), while the rate of total budget execution rose by 1.6% points year-on-year to 39.2%.

<Figure III -15> Fiscal Impulse Measure[1)2)]



Notes: 1) 3-quarter moving averages.
2) The green areas indicate economic upturns and the grey areas downturns.
Source: The Bank of Korea.

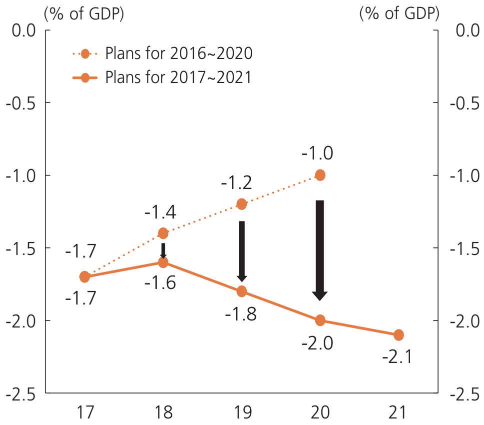
<Figure III -16> Decomposition of government expenditures



Source: Ministry of Strategy and Finance.

As fiscal expenditure is expected to expand steadily in the future as well, it is forecast that the growth boosting effects of fiscal policy will be sustained.

<Figure III -17> Government's medium-term fiscal plans[1)]



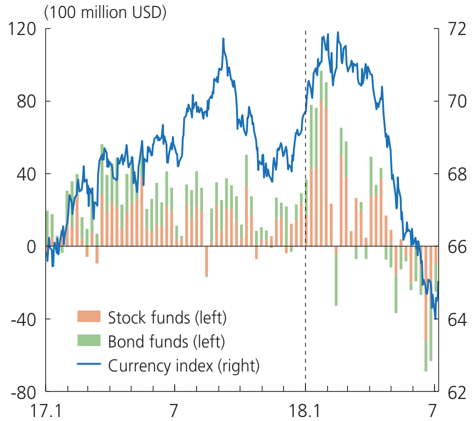
Note: 1) Based on fiscal balance excluding social security fund balance.
Source: Ministry of Strategy and Finance (August 2017).

C. Examination of Recent Financial Unrest in EMEs

Since the middle of April there has been continuing financial and foreign exchange market unrest in some emerging market countries. This appears to have been a result of the emergences of political and economic vulnerabilities in these countries, together with risk aversion due to concerns about the possibility of accelerated interest rate hikes by the US Federal Reserve and about the strengthening of protectionism. It is assessed that the effects on the domestic financial and foreign exchange markets due to the unrest in these countries have been limited until now, given the robustness of Korea's economic fundamentals. However, if in the unrest in vulnerable EMEs spreads, and the uncertainties related to the financial markets in China expand, then the negative impacts on Korea can grow, and it is thus necessary to watch closely for any changes in market conditions.

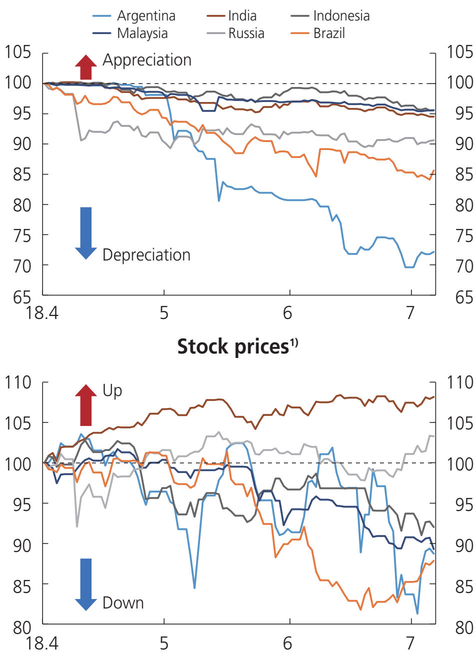
Since mid-April of 2018 financial and foreign exchange market unrest in some EMEs has been continuing, with their currencies weakening, their asset prices falling and funds of foreign investors flowing out of them. This appears to have been a direct result of the rise in US Treasury bond yields and the appreciation of the US dollar, owing to increased concerns about accelerated rate hikes by the US Federal Reserve in line with greater inflation expectations in the markets due to the buoyancy of the US economy and to the rising oil prices. Recently concerns about strengthening protectionism, including a deepening of the US-China trade dispute, have also been driving the unrest.

<Figure III -18> EME currency indices[1] and in- and outflows of fund capital[2]



Notes: 1) Values of 10 EME currencies against USD.
2) Weekly basis.
Sources: Bloomberg, EPFR.

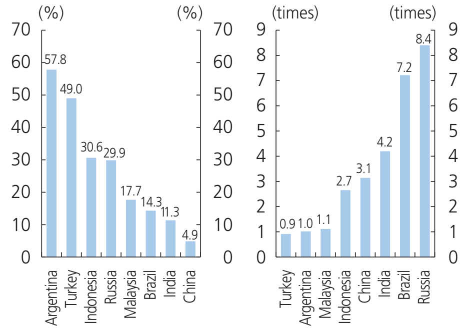
<Figure III -19> Exchange rates[1]



Note: 1) End-March 2018 = 100.
Source: Bloomberg.

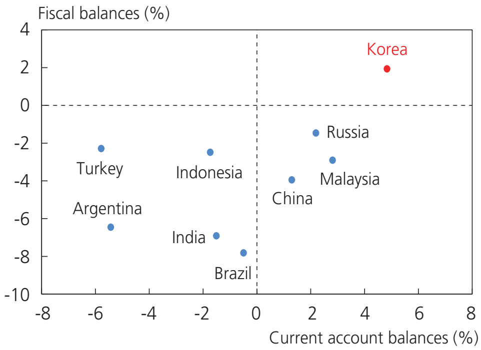
A look at the situations of individual countries finds the market unrest to have been conspicuous in countries whose economic fundamentals are weak. In the cases of Argentina and Turkey, where inflows of funds of foreigner investors had soared since 2016, concerns about their foreign debt redemption capacities have arisen due to the considerable increases in global interest rates. Moreover, the high fiscal deficit ratios in Brazil and India, the high share of foreigner investment in the bond market and the current account deficit in Indonesia, and the high ratio of short-term external debt relative to its foreign reserves in Malaysia are being appraised as vulnerabilities for these countries.

<Figure III -20> **Shares of liabilities denominated in foreign currencies[1)]** **Ratios of foreign exchange reserves to short-term external debt**



Note: 1) Liabilities denominated in foreign currencies/ Total liabilities (as of end-March 2018).
Sources: IIF, IMF, World Bank.

<Figure III -21> **Fiscal and current account balances[1)]**

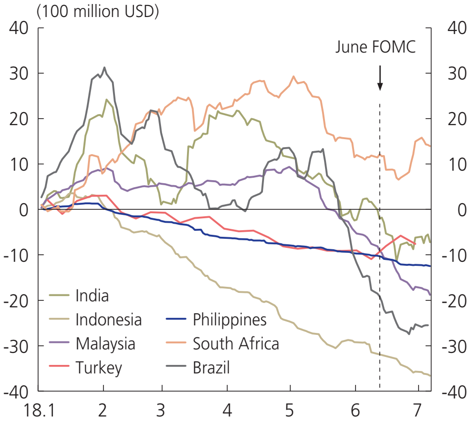


Note: 1) Percentages of GDP.
Sources: IMF, Haver.

Political and social uncertainties in individual countries have also driven the expanding market unrest. Argentina, even despite having suffered from high inflation at the end of last year and the beginning of this year, has adjusted its inflation target upward and cut interest rates, causing a decline in the credibility of its policy response capacity that is being pointed to as a main reason behind its current unrest. In the case of Turkey, concerns have been raised about economic overheating due to the government's expansionary policies during the run-up to the early general and presidential elections in June of this year, and about the inadequate timing of its monetary policy responses. In Brazil, amid the delay in pension reform with October's presidential election approaching, there has been increased political and social unrest including ongoing large-scale labor disputes.

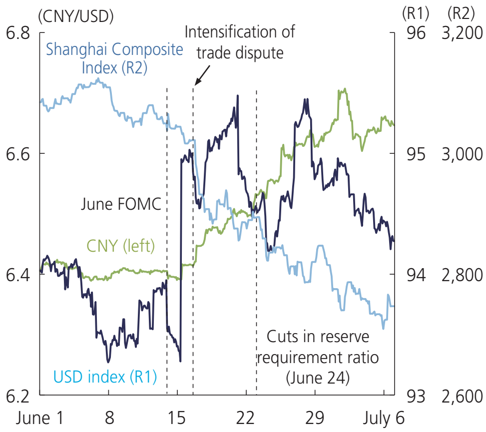
In these circumstances, there is growing possibility of a considerable prolongation of the financial unrest in EMEs, given the further strengthening of risk aversion due to the increased likelihood since June of accelerated rate hikes by the US Federal Reserve and to the deepening of the global trade conflicts. In particular, volatility is expanding as well in the Chinese financial markets, which had shown stability until recently, with the Chinese yuan and stock prices weakening greatly on concerns about slowing growth due to the sluggishness of economic indicators such as investment and consumption, and the intensification of the trade conflict with the United States.

<Figure III -22> In- and outflows of foreigners' stock funds in major EMEs[1]



Note: 1) Cumulative basis since early 2018.
Source: Bloomberg.

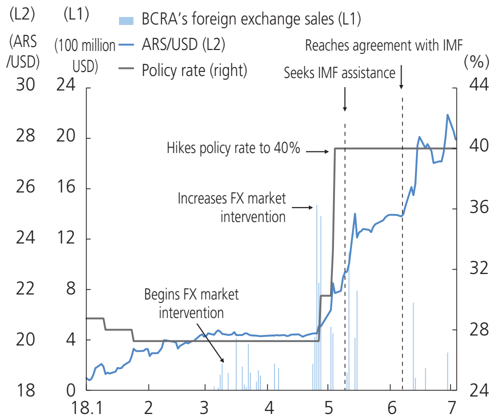
<Figure III -23> Stock prices and exchange rate in China since June



Source: Bloomberg.

EMEs that have faced financial and foreign exchange market unrest have responded by using a variety of policy tools to restore market stability and investment sentiment. To restrain capital outflows they have raised interest rates,[41] and intervened in their foreign exchange markets and made various efforts to defend the values of their currencies. Argentina, notably, applied in May for fund support from the IMF in order to stabilize its market sentiments as the plunge of its peso continued even despite its interest rate hikes and foreign exchange market interventions.[42] These kinds of policy responses have shown effects in stabilizing price variables temporarily, but it is assessed that they have still not succeeded in soothing the market anxieties.

<Figure III -24> Argentina's policies



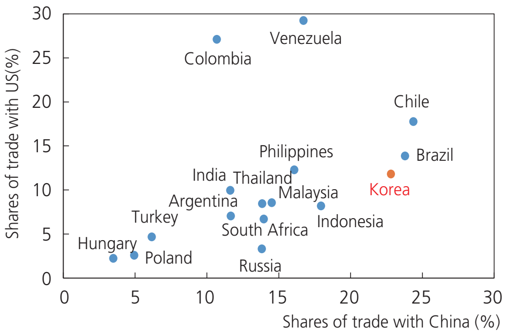
Source: Bloomberg.

Meanwhile, the effects on Korea's financial and foreign exchange markets stemming from the financial unrest in EMEs appear to have been limited until now. Differently from other EMEs, Korea is sustaining fiscal and current account surpluses, and its external debt repayment capacity is also assessed as excellent. On the basis of these favorable economic fundamentals Korea is currently

41) Since mid-April, Turkey, Argentina, Indonesia, India, the Philippines, Mexico and the Czech Republic have all raised their interest rates.
42) The IMF on June 7 agreed with Argentina on a 3-year, 50-billion-dollar stand-by support arrangement, and in its June 20 Executive Board Meeting gave final approval of this.

maintaining its high sovereign credit rating,[43] and portfolio investment by foreigners was in the first half of this year also continuing the net inflows that it showed last year as well, led by investment in bonds. The mutual exposures between Korea and the vulnerable countries are also not large, and the impacts that they will have on the soundness of domestic financial institutions are also insignificant. However, if the protectionism spreads, and the financial market unrest in China, whose interconnectedness with Korea in terms of the real economy and financial transactions is high, expands, then the negative effects on the Korean economy can grow. We will therefore have to monitor the domestic and foreign financial markets closely, and maintain arrangements that enable us to respond promptly to developments as necessary.

<Figure III -25> **EMEs' trade reliance on G2 economies**



Sources: IMF, CEIC.

5. Future Monetary Policy Operational Directions

Base Rate Operation

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

The domestic economy is expected to sustain its solid growth, but given the forecast that the demand-side inflationary pressures will not be large for the time being, the Bank plans to maintain its accommodative monetary policy stance. In this process, as it closely examines any changes in conditions at home or abroad, and their effects on growth and prices, it will carefully judge whether an additional adjustment in the degree of accommodation is called for. Besides consumer price inflation the Bank will also closely review core inflation, inflation expectations, international oil prices, global inflation, various auxiliary price indices, the GDP gap, and the spare capacities in employment and in the manufacturing sector.

The Bank will operate its monetary policy while remaining continually mindful of financial stability as well. As the uncertainties related to global trade conflicts and to the speeds of monetary policy normalization in major countries are high, it will closely

43) Recently Moody's (June 18) and Fitch (June 22) have maintained their sovereign credit ratings for Korea at their existing levels ('Aa2' and 'AA-' respectively, with both of their outlooks 'Stable').

examine their developments and impacts going forward. Along with this, the Bank will devote attention as well to the possibility of its prolonged accommodative policy stance causing the accumulation of household debt and other financial imbalances to deepen, and the effects on growth and inflation that this build-up in imbalances will have in the medium to long term.

Enhancement of Monetary Policy Effectiveness

The Bank will continue its efforts to enhance the effectiveness of its monetary policy. Since when uncertainties are high the markets can react sensitively to even small changes in economic conditions, the Bank plans to enhance the accuracy of its economic forecasts and heighten the predictability of its policies, while striving to ensure that it communicates its policy directions consistently.

Promotion of Financial and Foreign Exchange Market Stability

The Bank will also continue its efforts to promote the stability of the financial and foreign exchange markets. There is a likelihood of the volatility of price variables in the financial and foreign exchange markets expanding frequently in line with changes in domestic and external conditions such as the global trade conflicts and the continuation of interest rates hikes by the US Federal Reserve. In particular, the Korean economy can be negatively affected by any worsening of trade conditions due to a deepening of the trade conflict between the US and China. In cases of financial and foreign exchange market unease the Bank will on the one hand implement timely market stabilization measures, while on the other facilitating swift responses to emergencies through continually supplementing and reviewing its contingency plans prepared for times of financial and foreign exchange market unease. In order to ensure that the external soundness of the Korean economy can be maintained satisfactorily, it plans in addition to strengthen the multi-layered foreign exchange safety nets though financial cooperation with major international organizations and regional cooperative bodies.

Strengthening of Financial System Stability

The Bank will devote special efforts to early identification of the effects on financial system stability due to changes in financial and economic conditions in Korea and abroad, and to the devising of measures in response. The pace of household debt growth has slowed, driven especially by home mortgage lending in line with the government's housing market and housing debt measures, but the amount of unsecured loans is increasing rapidly. Moreover, the rate of growth in overall household debt is still exceeding that in income, and thus needs to be managed at a stable level. The Bank will in addition strengthen even further its monitoring related to external risk factors such as concerns about financial unrest in some EMEs and increases in geopolitical risks, and will prepare thoroughly for any impacts that they may have on the domestic financial system.

Contributing Departments & Authors by Section

Section	Author	
Planning & Coordinating	Monetary Policy Dept.	Chang, Cheong Soo & Kim, Nak Hyun Choi, Yeon-Kyo & Kim, Ji Hoon Kim, Young Woong & Oh, Jiwon (Monetary Policy Communication Team)
I. Monetary Policy Operating Conditions		
1. Global Economy	Research Dept.	Lee, Chang-Kee & Choi, Kisan & Jang, Tae Yun (Global Economy Analysis Team)
2. Domestic Economy	Research Dept.	Choi, In Hyup (Overall Research & Forecasting Team)
3. Prices	Research Dept.	Lim, Choon Sung & Kim, Mi Ju (Inflation Monitoring & Forecasting Team)
4. Financial and Foreign Exchange Markets	Financial Markets Dept.	Na, Young In (Financial Markets Affairs Team) Chae, Kyungrae (Fixed Income Markets Analysis Team) Lim, In Hyuk (Equity Markets & Corporate Finance Team)
	International Dept.	Hwang, Moon Woo (Foreign Exchange Market Team)
[Box I-1] Background to the Net Sales of Stocks by Foreigners in the First Half, and An Assessment	Financial Markets Dept.	Lim, In Hyuk & Ahn, Ji Eun (Equity Markets & Corporate Finance Team)
II. Conduct of Monetary Policy		
1. Base Rate	Monetary Policy Dept.	Jo, Sungmin & Won, Young Jin (Monetary Policy Planning & Coordination Team)
	Financial Markets Dept.	Jo, Se Hyung (Market Operations Team)
2. Bank Intermediated Lending Support Facility	Monetary Policy Dept.	Lim, Hyun Kang(Credit & Reserves Policy Team)
3. Financial Stability	Financial Markets Dept.	Na, Young In (Financial Markets Affairs Team)
	International Dept.	Kim, Min-Kyoo(International Planning & Coordinating Team)
	International Affairs Dept.	Kang, Ji Yeon (International Affairs Strategy & Coordination Team) & Choi, Mun Seong (Financial Coopeartion Team)
	Payment & Settlement Systems Department	Oh, Suk-Eun(Payment Systems Policy Team)
	Financial Stability Dept.	Park, Jungmin (Financial Stability Planning & Coordination Team)
	Office of Bank Examination	Choe, Jae Hyuk (Examination Planning Team)
III. Future Monetary Policy Directions		
1. External Conditions	Research Dept.	Lee, Chang-Kee & Choi, Kisan (Global Economy Analysis Team)
2. Growth Forecast	Research Dept.	Choi, In Hyup (Overall Research & Forecasting Team)
3. Price Forecast	Research Dept.	Lim, Choon Sung & Kim, Mi Ju (Inflation Monitoring & Forecasting Team)
4. Major Consideration		
A. Factors Behind the Changes in Inflation, and Implications	Monetary Policy Dept.	Kim, Byungkuk & Jang, Bosung &, Bae, Han Iee (Monetary Policy Analysis Team)
B. The recent Fiscal Policies	Research Dept.	Sung, Hyungoo & Sim, Yean Jung (Macroeconomic & Fiscal Research Team)
C. Examination of Recent Financial Unrest in EMEs	Research Dept.	Kim, Dong whee & Lee, Taek Min & Lim, JongSu (International Planning & Coordination Team)
5. Future Monetary Policy Operational Directions	Monetary Policy Dept.	Jo, Sungmin & Won, Young Jin (Monetary Policy Planning & Coordination Team)

Monetary Policy Report

Publisher Lee, Juyeol

Editor Park, Jong Seok

Published by The Bank of Korea

67, Sejong-daero, Jung-Gu, Seoul, 04514, Korea

www.bok.or.kr/eng

Published on September 21, 2018

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)
- Please contact Monetary Policy Communication Team, Monetary Policy Department, the Bank of Korea (Tel: +82-2-759-4676, Fax: +82-2-759-4500, Email: bokmpcm@bok.or.kr)

ISSN 2005-2707

m.bok.or.kr