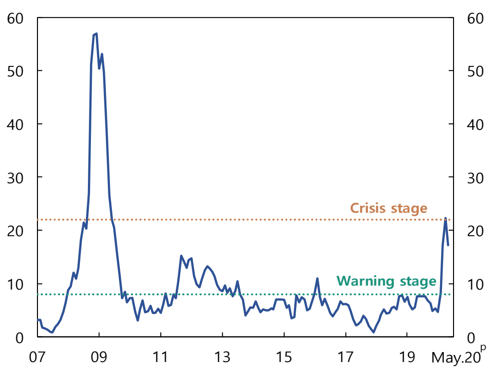
Unofficial translation

Please refer to the original report in Korean for the most accurate contents.

[Overview]

With the global economy severely affected by the COVID-19 pandemic since March, Korea's financial system has shown a degree of instability as well, such as greater volatility in financial and foreign exchange markets and higher market vigilance. Thanks to the government and the Bank of Korea's active policy responses including market stabilization measures, financial market anxiety has eased on the whole. However, there are concerns that financial unrest could recur, depending on developments of the COVID-19 pandemic. The Financial Stability Index (FSI), showing overall financial system conditions, has rapidly risen since February and reached the crisis stage in April (22.3). The index has fallen since then but remains at 18.0, far above the warning stage threshold (8.0).

Financial Stability Index (FSI)[1)2)]



Notes: 1) A composite index (0-100) calculated by standardizing 20 monthly real and financial sector indicators related to financial stability. The warning and crisis stage thresholds are set at 8 and 22 respectively, using the "noise-to-signal ratio" method.
2) Preliminary figures for April and May 2020.
Source: Bank of Korea.

A look at financial stability conditions by sector shows, first, that in the credit markets private credit has surged, owing to continuously increasing household loan demand and corporate efforts to secure financial resources in view of worsening business conditions. In addition, the private credit-to-nominal GDP ratio has risen greatly due to a fall in the nominal GDP growth rate. Amid a rise in household credit, led by home mortgage loans, households' debt repayment burden has also increased with the growth rate of household disposable income diminishing due to the economic slowdown. The household loan delinquency rate still remains low, but it has been rising somewhat for loans from non-bank financial institutions. Meanwhile, as demand soars for funds in line with worsening business conditions stemming from the COVID-19 pandemic, corporate credit has seen its growth accelerate thanks to financial institutions' active supply of credit. If the economic recovery is delayed, despite improvement in funding conditions in the corporate sector, credit and liquidity risks could expand, especially in vulnerable industries.

In the asset markets, bonds and stocks have shown high volatility out of concerns about the economic downturn due to the spread of COVID-19. Long-term market interest rates have fluctuated, affected by the possible global economic recession, financial market anxiety, and domestic and overseas market stabilization measures. Corporate bond credit spreads have widened greatly since mid-March due to mounting concerns about deteriorating corporate performance and credit rating downgrades.

Domestic stock prices had plummeted along with those in major economies owing to the worldwide spread of the COVID-19 but have rebounded quickly since late March thanks to policy actions taken at home and abroad. The pace of rise in housing sales prices slowed due to tougher government regulations and worsening real economic conditions, but upward price pressures appear to have been growing lately.

With regard to financial institutions, commercial banks' financial soundness remains solid in general, but their profitability has decreased owing to the decline in their net interest margin caused by falling interest rates. The asset soundness of non-bank financial institutions has been generally favorable amid sustained growth in assets, but their profitability has declined in most sectors. While the negative impacts from the COVID-19 outbreak are not fully reflected in the business performances of financial institutions, if the economic recession is prolonged going forward, profitability could further deteriorate and the potential risks of loans that have grown in the process of the COVID-19 response could be realized, especially for vulnerable borrowers.

Foreigners' portfolio investment recorded net outflows of 4.9 billion dollars between January and May due to large-scale outflows of stock investment in line with worsening sentiment stemming from the spread of COVID-19, despite net inflows of bond investment. Going forward as well, capital flow volatility could expand as global investor sentiment deteriorates affected by the possibility of a second wave of the COVID-19 pandemic and worries over the escalation of US-China disputes.

The financial system's resilience, i.e. its capacity to withstand domestic and external shocks, has remained favorable. Although financial institutions' capital adequacy and liquidity ratios have somewhat decreased in response to the outbreak of the COVID-19, they have still greatly exceeded regulatory standards. However, it must be kept in mind that if the economic fallout from COVID-19 lingers longer than expected, credit and market losses could grow and in turn undermine the resilience of domestic financial institutions. As for the nation's external payment capacity, it has remained generally favorable despite foreign portfolio investment outflows, with only a slight decline in official foreign reserves.

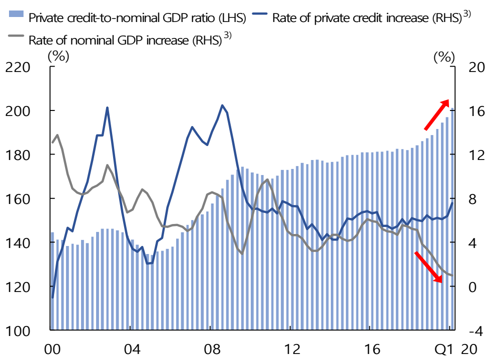
The Korean financial system has shown a degree of instability due to the unprecedented financial and real sector shocks from the spread of COVID-19. However, as active policy responses by Korean and other major country governments and central banks start to pay off, the domestic financial system has gradually recovered. Nevertheless, since there are still potential destabilizing factors at home and abroad, such as a possible second wave of the virus, uncertain domestic and global economic outlooks, and mounting tensions between the US and China, a high level of alertness must be maintained. In coping with the COVID-19 pandemic, the active supply of credit to the private sector has been especially helpful for overcoming crises in the household and corporate sectors. However, it should be noted that if the economic recession is prolonged, these increased loans could weigh on the financial system. The Bank of Korea will strive to maintain the financial system's stability over the medium-and long-term horizon in close cooperation with the government, while actively responding in the event of market destabilizing factors such as heightened market vigilance or a deepening liquidity crunch.

[Financial Stability Situation by Sector]

I. Credit Markets

1 The private credit-to-nominal GDP ratio, an indicator of the level of private sector leverage, stood at 201.1% (estimated) at the end of the first quarter of 2020, showing a significant rise of 12.3%p from the same period of last year. This was attributable to an accelerated growth of private credit driven by corporate funding efforts and increased household loan demand, amid a considerable decline in nominal GDP growth.

Private credit[1]-to-nominal GDP[2] ratio

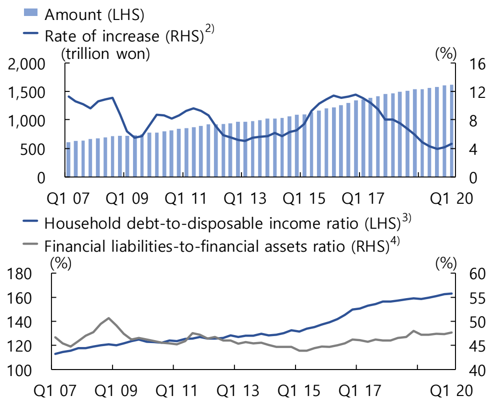


Notes: 1) Estimated figures for Q1 2020.
2) Sum of nominal GDPs in quarter concerned and in immediately preceding three quarters.
3) Year-on-year basis.
Source: Bank of Korea.

2 The pace of increase in household credit has slightly accelerated since the fourth quarter of last year, but remained slower than that of the normal year average. Household debt (household credit statistics basis) rose by 4.6% year on year to reach 1,611.3 trillion won at the end of the first quarter of 2020.

As debt increased at a faster rate than that of income, households' debt service burdens grew. The household debt-to-disposable income ratio stood at 163.1% (estimated) at the end of the first quarter of 2020, an increase of 4.5%p from the same period of last year (158.6%). The financial liabilities-to-financial assets ratio (flow of funds statistics basis) stood at 47.7% (estimated) at the end of the first quarter of 2020, up 0.5%p from a year earlier (47.2%). Although the household debt delinquency rate is lower than in the past, it has been rising somewhat for loans from non-bank financial institutions (NBFIs).
Household debt service capacity could further deteriorate going forward as the economy slows and employment conditions worsen due to the spread of COVID-19.

Household credit[1)]



Notes: 1) Household credit statistics basis.
2) Year-on-year basis.
3) Disposable income of the first quarter of 2020 is estimated using the average of the household disposable income-to-gross national income ratios for the immediately preceding three years.
4) Based on the flow of funds statistics; estimated figure for Q1 2020.

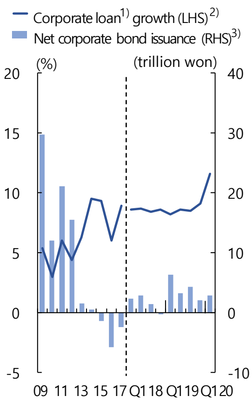
Source: Bank of Korea.

3 Corporate credit has increased considerably as enterprises respond to the spread of COVID-19. Corporate loans recorded a year-on-year increase of 11.6% to reach 1,229.2 trillion won at the end of the first quarter of 2020, driven by loans from both deposit-taking banks and NBFIs. By company size, loans to large enterprises and small and medium-sized enterprises (SMEs) both increased. In the case of the direct financial market, conditions for corporate bond and CP issuance deteriorated somewhat due to heightened market vigilance against credit risks, but then improved steadily thanks to market stabilization measures by the government and the Bank of Korea, resulting in net issuance of corporate bonds and CP.

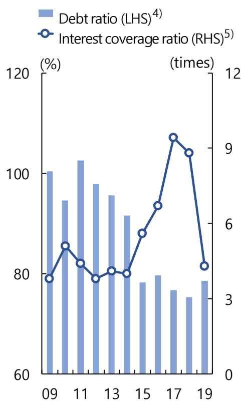
Corporate financial soundness has been worsening due to a deterioration in corporate performances since last year. The overall corporate debt ratio (debt / equity) at the end of 2019 stood at 78.5%, rising slightly from the end of last year (75.3%). The interest coverage ratio (operating income / interest expenses) declined drastically (8.8 in 2018 → 4.3 in 2019) due to reduced profitability.

As business activity continues to contract considerably this year affected by COVID-19, the financial soundness and funding conditions of the corporate sector are highly likely to further deteriorate.

Corporate credit



Corporate financial soundness



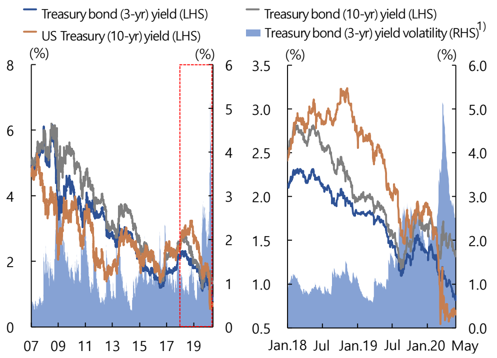
Notes: 1) Based on deposit-taking banks and non-bank financial institutions (mutual credit cooperatives, mutual savings banks, insurance companies and credit-specialized financial companies) (corporate loans extended by NBFIs for certain sectors and periods include loans to financial or insurance businesses due to limited data).
2) Year-on-year basis. 3) During the quarter (since 2018).
4) Debt / Equity, end-period basis.
5) Operating income / Interest expenses.

Sources: Bank of Korea, Korea Securities Depository, KIS-Value, financial institutions' business reports.

II. Asset Markets

1 Treasury bond yields declined on the back of concerns over a global economic recession following the spread of COVID-19, as well as due to market stabilization measures and policy rate cuts in major countries. Interest rate volatility expanded significantly around mid-March but diminished rapidly afterwards.

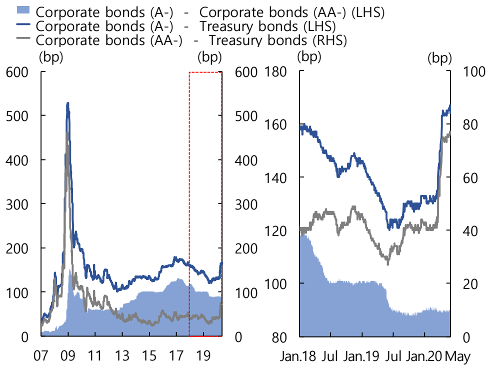
Korean and US Treasury bond yields



Note: 1) Daily volatility calculated using exponential weighted moving average (EWMA) method.
Sources: Korea Financial Investment Association, Bloomberg.

Corporate bond credit spreads widened greatly due to rising concerns about deteriorating corporate performances and corporate credit downgrades resulting from the effects of COVID-19.

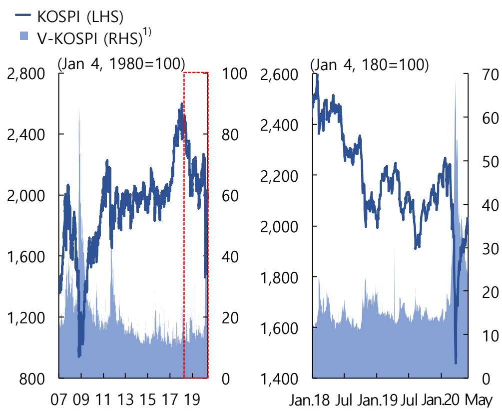
Corporate bond credit spreads[1], and spread across credit ratings



Note: 1) 3-year maturity basis.
Source: Korea Financial Investment Association.

2 Stock prices dropped greatly, influenced by COVID-19, but rebounded sharply after late March thanks to the proactive policy responses taken by Korea and other major countries. Stock price volatility fluctuated widely, affected by the developments in the spread of the COVID-19 at home and abroad, and by subsequent changes in international financial market conditions.

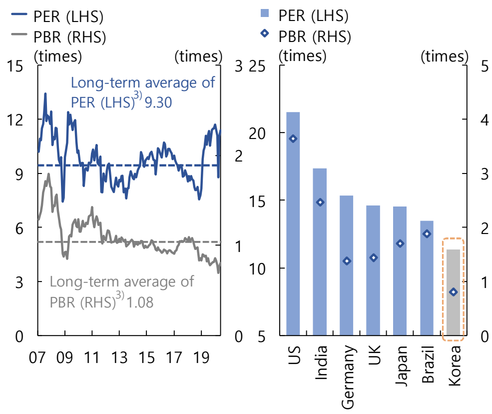
Stock price and stock price volatility indices



Note: 1) Volatility index calculated based on prices for options on KOSPI200 index.
Source: KOSCOM.

The price-earnings ratio (PER), showing the level of a firm's stock price relative to its profit, remained above its long-term average (9.30 since 2001), standing at 11.38 as of the end of May. The price-to-book value ratio (PBR), showing a firms' stock price level relative to its liquidation value, stood at 0.80, below the long-term average (1.08). The PER and PBR of listed stocks in Korea are lower than the corresponding ratios in other major economies.

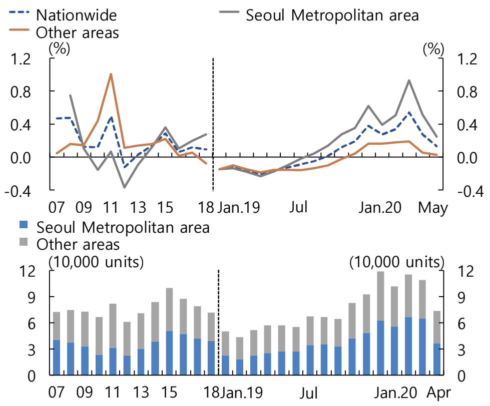
PER[1] and PBR[2]



Notes: 1) MSCI basis (12-month forward). 2) KOSPI basis.
3) Long-term average in the January 2001-May 2020 period.
Sources: Bloomberg, Thomson Reuters.

3 Housing sales prices have been accelerating slightly recently, after having decelerated due to the government's tightened regulations and the worsening real economic conditions. While prices in Seoul showed slowdown, those of the surrounding areas of Seoul continued their upward trend owing to development projects. The pace of increase in leasehold deposit (*jeonse*) and monthly rental prices has also been accelerating since late May, led by the Seoul Metropolitan area. In the meantime, the volume of housing sales transactions declined drastically entering April as buying sentiment contracted.

Rates of increase in housing sales prices[1] and housing sales transaction volumes[2]



Notes: 1) For 2018 and earlier, annual average of monthly growth; for 2019 onward, month-on-month increase.
2) For 2018 and earlier, monthly average.
Sources: Korea Appraisal Board; Ministry of Land, Infrastructure and Transport.

Ⅲ. Financial Institutions

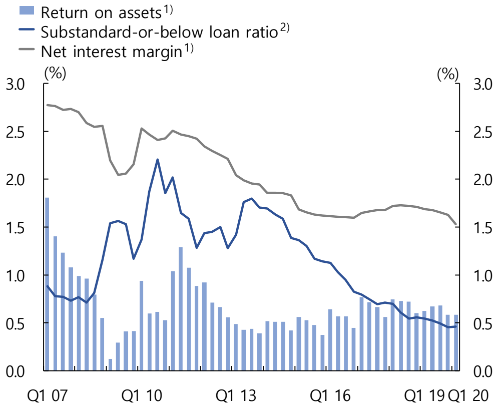
1 The financial soundness of commercial banks remains satisfactory overall.

Commercial banks' assets totaled 1,842 trillion won at the end of the first quarter of 2020, up by 10.2% year on year, the fastest growth since the first quarter of 2009 (14.8%). This has been driven by increased demand for corporate loans following the spread of COVID-19. Commercial banks' asset soundness has remained favorable, with their substandard-or-below loan ratio standing at a low level of 0.46%.

Commercial banks' profitability has declined slightly compared to the same period of last year due to the narrowing of the net interest margin stemming from declines in interest rates. During the first quarter of 2020, commercial banks' return on assets (ROA) was 0.58% (annualized), down by 0.04%p from that in the same period of last year (0.62%).

Entering the second quarter of this year, loans have been increasing rapidly, led by corporate loans. Thus, asset soundness could worsen if the real economic slump continues.

Commercial bank asset soundness and profitability



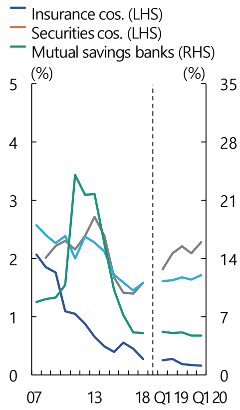
Notes: 1) Accumulated quarterly incomes annualized.
2) End-period basis.
Sources: Commercial banks' business reports.

2 The financial soundness of NBFIs has generally been favorable as well. Amid continuous asset growth, asset soundness has remained satisfactory overall, but the profitability of most NBFI sectors has dropped.

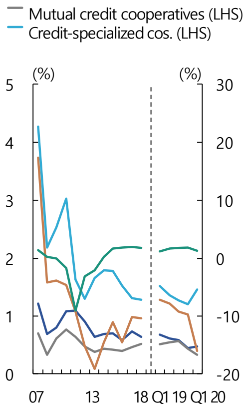
NBFIs' assets increased by 9.8% year on year to total 2,942 trillion won at the end of the first quarter of 2020. The asset soundness of savings banks, insurance companies and credit-specialized financial companies has improved overall with declines in their delinquency rates, but both the delinquency rate and the substandard-or-below loan ratio of mutual credit cooperatives have increased.

The profitability of most NBFI sectors has dropped. In particular, the ROA of securities companies has declined by the largest margin among NBFI sectors due to losses related to derivatives-linked securities like ELS. If an economic recovery is delayed, the profitability of NBFIs with relatively higher proportions of vulnerable borrowers could worsen by a larger extent. Therefore, close monitoring of the trend is needed.

NBFI substandard-or-below loan ratios[1)2)]



NBFI returns on assets (ROAs)[2)3)]



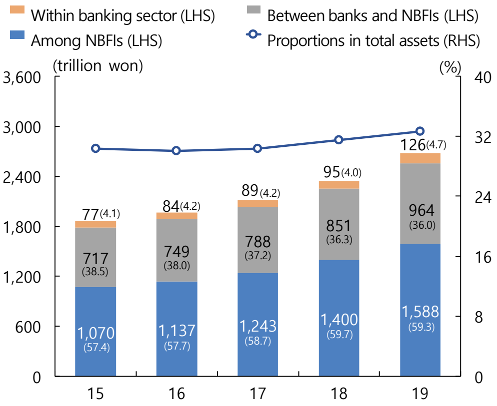
Notes: 1) End-period basis, excluding securities companies.
2) The area on the left of the dotted line is on an annual basis, and that on the right is on a quarterly basis.
3) Accumulated quarterly incomes annualized.
Sources: Financial institutions' business reports.

3 Financial institutions' interconnectedness through their funding and operations has strengthened. Mutual transactions among financial institutions amounted to 2,678 trillion won at the end of 2019, representing a year-on-year increase of 14.1%. The share of mutual transactions in the total assets of the overall financial sector rose to 32.7%, up by 1.2%p from the end of the previous year.

Looking at the proportions across financial sectors, the share of mutual transactions within the banking sector rose by 0.7%p year on year to stand at 4.7%. However, the share of mutual transactions among NBFIs recorded 59.3%, and that of mutual transactions between banks and NBFIs came to 36.0%, falling by 0.4%p and 0.3%p, respectively, from a year earlier. This is because banks increased their investment in securities such as specialized bank debentures in the process of rebalancing their portfolios.

Analyzing mutual transactions among financial institutions, the contagion risk across financial sectors declined slightly compared to the end of last year, while that across the banking sector ticked up. In the meantime, the concentration risk maintained a similar level as the end of the previous year.

Mutual transactions among financial institutions and across sectors[1)2)]



Notes: 1) Mutual transaction amounts are on an end-period basis (flow of funds statistics).
2) Figures within parentheses are the proportion of the total amount of mutual transactions.

Source: Bank of Korea.

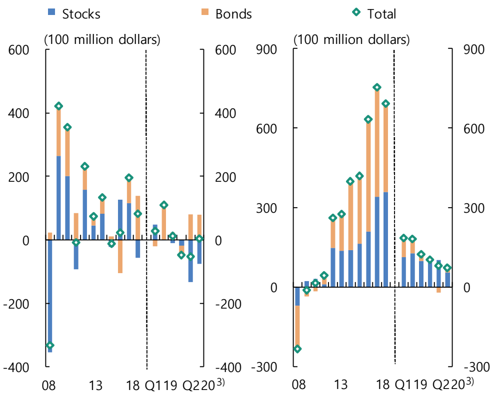
Ⅳ. Capital Flows

From January to May 2020, foreigners' portfolio investment recorded a net outflow of 4.9 billion dollars (stocks -20.9 billion dollars, bonds 16.0 billion dollars) due to the worsening of sentiment with the spread of COVID-19. Volatility appears to have eased overall since April, as funds for bond investment continued to flow in, and the extent of stock investment outflows narrowed thanks to swift policy responses in major economies and the containment of COVID-19 in Korea.

There is a possibility that capital flow volatility could expand again as there are external risk factors remaining such as the possibility of a second wave of COVID-19, an escalation of conflicts between the US and China, and the deepening of recessions in major countries.

The increase in residents' overseas portfolio investment has shrunk, centering around stocks, due to the worsening of global investor sentiment. From January to April 2020, residents' overseas portfolio investment recorded 15.0 billion dollars (stocks 15.5 billion dollars, bonds -0.5 billion dollars), down by 9.2 billion dollars compared to the same period of last year (24.2 billion dollars).

Changes in foreigners' domestic portfolio investment[1] | Changes in residents' overseas portfolio investment[2]



Notes: 1) A "+" means net inflow, and a "-" net outflow.
2) A "+" means net investment, and a "-" net withdrawal.
3) Changes in foreigners' domestic portfolio investment for Q2 2020 based on April-May; changes in residents' overseas portfolio investment based on April.
Source: Bank of Korea.

[Resilience of Financial System]

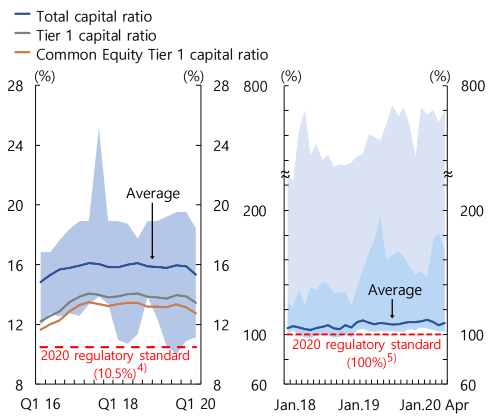
I. Financial Institutions

1 Commercial banks' resilience has remained sound overall. Their capital adequacy and liquidity ratios declined, but far exceeded the regulatory standards for all banks.

Commercial banks' total capital ratio under Basel III, indicative of banks' loss absorption capacities, stood at 15.33% at the end of the first quarter of 2020, down by 0.55%p compared to the end of last year. Their Tier 1 capital ratio also showed a decrease of 0.42%p compared to the year-end to stand at 12.74%. Commercial banks' liquidity coverage ratio (LCR), measuring the ability to respond to sudden net outflows of funds, stood at 109.4% at the end of April 2020, down by 1.0%p from the end of last year.

Commercial banks' capital adequacy could decline somewhat as the impacts of COVID-19 are more fully reflected in business performances, but the loss absorption capacities of the banking sector are projected to remain favorable.

Commercial bank total capital ratios[1] | Commercial bank liquidity coverage ratios (LCRs)[2)3)]



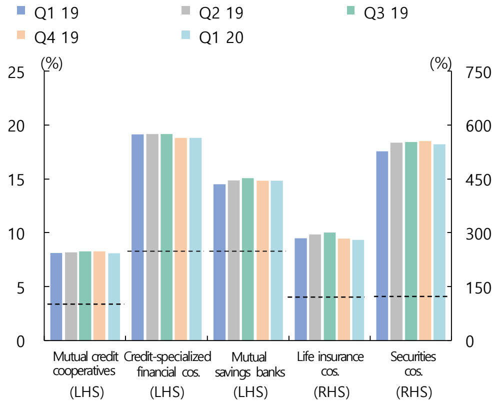
Notes: 1) The shaded area indicates the distribution of individual banks' capital ratios.
2) High-quality liquid assets / Total net cash outflows over next 30 calendar days.
3) The shaded area indicates the distribution of individual banks' LCRs, and the deep shaded area indicates distributions with internet-only banks excluded.
4) 8.625% for internet-only banks in 2020.
5) Temporarily lowered to 85% between April and September 2020.
Sources: Commercial banks' business reports.

2 The resilience of NBFIs has been maintained at a satisfactory level, with their capital adequacy ratios largely exceeding the supervisory standards for most sectors.

The net capital ratio of mutual credit cooperatives declined slightly by 0.2%p from the end of last year to stand at 8.1% at the end of the first quarter of 2020, which is far above the supervisory standard. The net capital ratio of securities companies and the risk-based capital ratio of life insurance companies fell by 9.4%p and 3.4%p from the end of last year to stand at 546.5% and 281.2%, respectively. In the meantime, the adjusted capital ratio of credit-specialized financial companies and the BIS capital ratio of mutual savings banks recorded 18.8% and 14.8%, respectively, virtually unchanged from the end of last year.

There is a need to prepare for the possibility of a weakening of NBFIs' resilience, as loan delinquencies and defaults have been increasing, centering around vulnerable industries and borrowers, affected by the spread of COVID-19, along with deteriorating profitability in most sectors.

NBFI capital adequacy ratios[1)2)]



Notes: 1) Mutual credit cooperatives' net capital ratio (supervisory standard 2%; 4% for MG community credit cooperatives and 5% for NongHyup), credit-specialized financial companies' adjusted capital ratio (7%; 8% for credit card companies), mutual savings banks' BIS capital ratio (7%; 8% for banks with total assets of 1 trillion won or more), insurance companies' risk-based capital ratio (100%), securities companies' net capital ratio (100%).
2) The dotted lines show the supervisory standards.

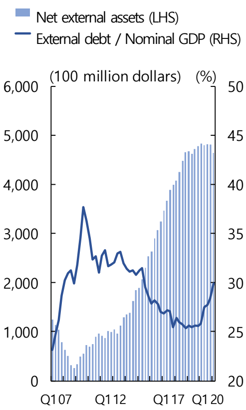
Sources: Financial institutions' business reports.

Ⅱ. External Payment Capacity

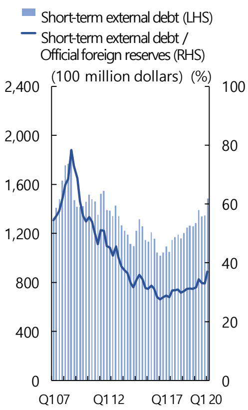
Korea's external payment capacity has remained satisfactory, even though the official foreign reserves declined as the FX authorities carried out policy responses such as market stabilization measures.

Net external assets declined and the ratio of external debt relative to nominal GDP increased slightly. The official foreign reserves fell by a large extent (-9.0 billion dollars) due to the FX authorities' market stabilization measures in response to market strains associated with the COVID-19 spread. However, they increased again in April as the Bank of Korea conducted competitive US dollar loan facility auctions using the proceeds of swap transactions with the US Federal Reserve, and as funding conditions improved in international FX markets. The ratio of short-term external debt relative to official foreign reserves increased by 5.4%p year on year to stand at 37.1% at the end of the first quarter of 2020, but it is significantly low compared to the ratios recorded during past crises.

External debt-to-nominal GDP ratio[1)]



Short-term external debt-to-official foreign reserves ratio[1)]



Note: 1) End-quarter basis.
Source: Bank of Korea.

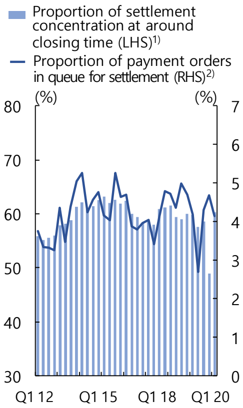
Ⅲ. Financial Market Infrastructures

The major payment and settlement systems including BOK-Wire+ have been operated smoothly amid a steady increase in the amount of settlement, driven mainly by securities settlements by financial institutions and electronic funds transfers by general customers and companies. Settlement risks have been managed stably despite increased volatility in the financial markets. The rate of maximum intraday overdraft cap utilization and the proportion of payment orders in queue for settlement, both of which are monitored as indicators of the settlement liquidity of BOK-Wire+ participants in the nation's large-value payment system, were generally at stable levels of 24.6% and 4.2%, respectively, during the first quarter of 2020. The net debit cap utilization rates, showing settlement risks related to the retail payment systems operated by Korea

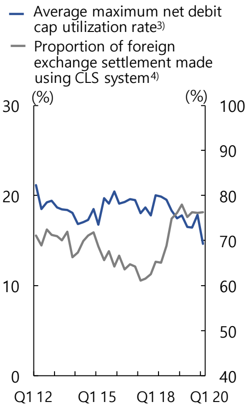
Financial Telecommunications & Clearing Institute, declined. The share of those handled by the CLS payment-versus-payment system, which reduces settlement risk effectively through the settlement of foreign exchange transactions without any time lag, maintained a high level at 76.3% in the first quarter of 2020.

The Bank of Korea has strengthened its cooperative framework with operating institutions in response to the spread of COVID-19, while frequently examining the settlement risks of participating institutions. In addition, the Bank of Korea has eased the burden of collateral of participating institutions and promoted financial market stability, by lowering the ratio of collateral for guaranteeing net settlements and expanding the range of eligible collateral.

Large-value payment system



Retail payment and foreign exchange settlement systems



Notes: 1) Amount of settlement processed after 16:00 / Total settlement amount.
2) Payment orders in queue for settlement / Total settlement amount (excluding payment orders in queue for liquidity savings).
3) Average of maximum net debit cap utilization rates of participants during the period.
4) Proportions in total CLS eligible FX transactions of those settled through CLS system.

Source: Bank of Korea.