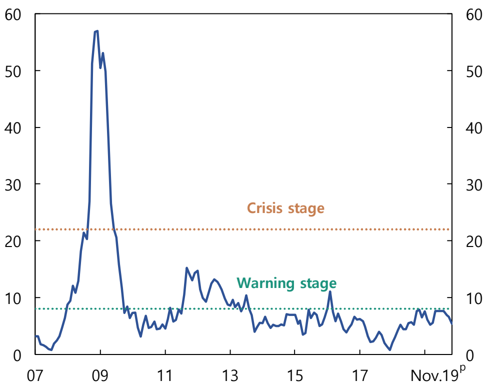
Unofficial translation

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

[Executive Summary]

The Korean financial system has remained stable on the whole. However, household and corporate financial soundness has deteriorated somewhat, led by vulnerable sectors, in line with the slowing of domestic and overseas economic growth and heightened volatility in the financial and foreign exchange markets, influenced by developments regarding external issues such as the US-China trade dispute. The Financial Stability Index (FSI), showing overall financial system conditions, has been below the warning stage (8.0), on the back of financial market stability in line with the expectations for progress in the US-China trade negotiations from September onward.

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 October and November 2019.
Source: Bank of Korea.

A look at financial stability conditions by sector shows, first, that in the credit markets the private credit-to-nominal GDP ratio has continued its trend of growth, as the nominal GDP growth rate fell while the growth rate of private credit was similar to that of last year. Growth in household credit has continued to slow, influenced by the strengthening of regulations on the housing market and on household loans. In particular, household loans by non-bank financial institutions have declined slightly, and the pace of growth in other loans including unsecured loans has fallen significantly. However, the soundness of household debt has deteriorated somewhat as the debt-servicing burden of households remains high and the loan delinquency rate has been on the rise, especially for loans from non-bank financial institutions. Corporate credit has seen its growth accelerate as corporate loans have increased steadily and net issuance of corporate bonds has expanded. Corporate financial soundness has been undermined as growth and profitability have declined, affected by a deterioration of business conditions, and interest payment capacities have weakened. If the domestic and global economic slowdowns are prolonged, there is a possibility that corporate credit risk could increase.

In the asset markets, the bond and stock markets have shown high volatility. Upward pressure on housing market prices has strengthened gradually. The volatility of long-term market interest rates has increased greatly as the rates hit a record low in mid-August but rebounded rapidly afterward. The corporate bond credit spread narrowed entering this year, but has widened considerably since June, influenced by the weakening merit of corporate bond interest rates. Stock prices have fluctuated greatly depending on the developments in the US-China trade dispute. Housing purchase prices shifted to an increase in September centering on the Seoul Metropolitan area, and the extent of increase has been expanding. Housing purchase prices in other regions also have rebounded recently.

With regard to financial institutions, the financial soundness of commercial banks has been favorable with the accelerated pace of asset growth and improved asset soundness. However, their profitability has declined slightly due to a decrease of the net interest margin caused by falling interest rates. The financial soundness of non-bank financial institutions has generally been favorable as well, but their profitability has declined slightly and asset soundness in some sectors has deteriorated.

Foreigners' portfolio investment in domestic markets generally recorded inflows between January and July, but has generally flowed out since August due to persisting uncertainties about the US-China trade dispute and concerns over economic slowdowns in major countries. Although the likelihood of any sudden outflows of foreign investment is not large in view of Korea's economic fundamentals, there is a possibility that capital flow volatility could expand if global investment sentiment worsens due to changes in the domestic and external environments.

The financial system's resilience, i.e. its capacity to withstand domestic and external shocks, has remained solid. Capital adequacy ratios at both banks and non-bank financial institutions have greatly exceeded the regulatory standards, and banks' liquidity conditions have also generally improved. Under a stress scenario assuming dual shocks in the real and financial sectors - an economic slowdown and financial market instability both caused by an escalation of the trade dispute - Korean financial institutions were found to be capable of withstanding losses from such shocks. With regard to the nation's external payment capacity, net external assets and the official foreign reserves hit their highest levels, and the short-term external debt ratio was similar to the normal year average.

The Korean financial system is showing stability overall, as detailed above, but it should be noted that financial system stability could be undermined, especially in vulnerable sectors, in line with any slowing of growth in the domestic and overseas economies or growing uncertainties in the global financial markets. In particular, close monitoring on some vulnerable households and corporations is needed as there are concerns over undermining of their debt servicing capacities. As the search-for-yield has intensified amid low-for-long interest rates, it is necessary to watch closely for the possibility of funds flowing into real estate and high-risk assets and of financial imbalances accumulating. The Bank of Korea, while remaining vigilant about diverse potential risks, intends to continuously examine financial system stability.

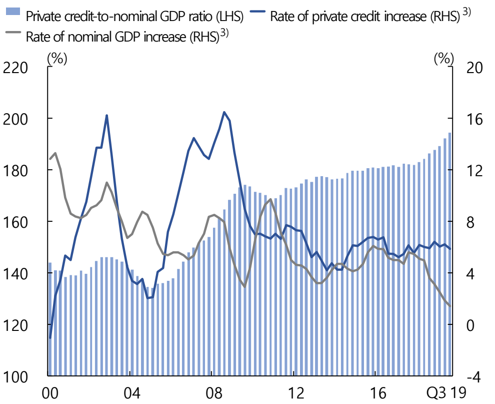
[Financial Stability Situation]

Ⅰ. Credit Markets

1 The private credit-to-nominal GDP ratio, an indicator of the level of private-sector leverage, has continued on an upward trend in 2019.

The private credit-to-nominal GDP ratio stood at 194.5% (estimated) at the end of the third quarter of 2019, up 8.2%p from the same period of last year. This is attributable to a fall in nominal GDP growth even though the growth of private credit was similar to that of last year.

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



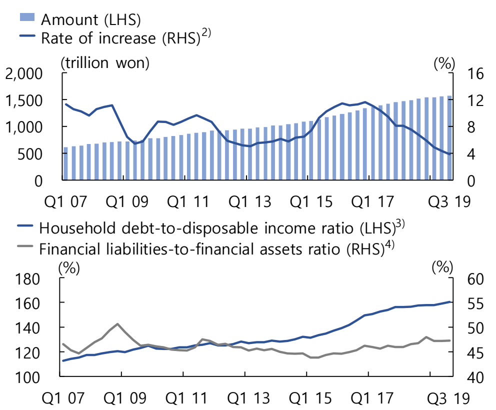
Notes: 1) Estimated figures for Q3 2019.
2) Sum of seasonally adjusted nominal GDPs in quarter concerned and immediately preceding three quarters.
3) Year-on-year basis.
Source: Bank of Korea.

2 The pace of increase in household credit has continued to slow, driven by loans by non-bank financial institutions (NBFIs). Household debt (household credit statistics basis) rose by 3.9% year on year to 1,572.7 trillion won at the end of the third quarter of 2019. By type of financial institution, the rate of growth in loans by banks has remained within the 7% range, while that in loans by NBFIs has turned to negative (-1.1% in Q3 2019). By loan type, home mortgage loans and other loans have both maintained relatively low growth rates since the fourth quarter of 2018.

Despite the slowdown in household debt growth, households' debt service burdens have remained high amid sluggish income conditions. The household debt-to-disposable income ratio stood at 160.3% (estimated) at the end of the third quarter of 2019, a year-on-year increase of 2.9%p. The financial liabilities to financial assets ratio (flow of funds statistics basis) stood at 47.3% at the end of the third quarter of 2019, up from 46.7% a year earlier.

Although households' credit risk remains low, it should be noted that the delinquency rate has recently been showing upward movement, particularly at NBFIs, rising by 0.38%p from the end of last year.

Household credit[1)]



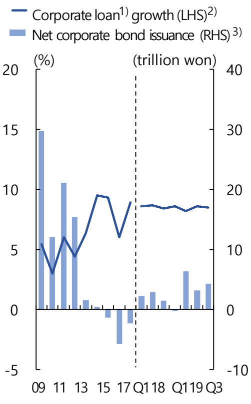
Notes: 1) Household credit statistics basis.
2) Year-on-year basis.
3) Disposable income for each quarter in 2019 is estimated using the average of the household disposable income-to-gross national income ratios for the immediately preceding three years.
4) Based on flow of funds statistics; estimated figure for Q3 2019.
Source: Bank of Korea.

3 Corporate credit has continued to increase, as loans to small-and-medium-sized enterprises (SMEs) have grown steadily and the net issuance of corporate bonds has expanded. Corporate loans recorded a year-on-year increase of 8.5% to reach 1,153.0 trillion won at the end of the third quarter of 2019, driven mainly by loans of NBFIs. By company size (based on deposit-taking banks), loans to large enterprises declined compared to the same period of last year while loans to SMEs continued to increase, led by loans to small- and medium-sized corporations. The net issuance of corporate bonds increased from last year (6.3 trillion won in 2018 → 13.8 trillion won in Q1-Q3 2019) thanks to favorable issuing conditions.

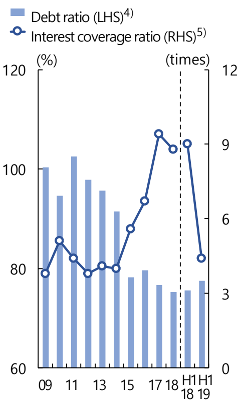
Corporate financial soundness has worsened somewhat. The overall corporate debt ratio (debt/equity) increased slightly to 77.6% at the end of June 2019 compared to the end of last year (75.3%). The interest coverage ratio (operating income/interest expenses) declined drastically in the first half of 2019 (9.0 in 2018 → 4.4 in 2019, first half basis) due to reduced profitability. The interest coverage ratios of both large enterprises (9.4 → 4.6) and SMEs (2.9 → 1.3) fell to about half the figures of the same period last year.

Amid the weakening of corporate financial soundness and of interest payment capacities, corporate credit ratings have worsened, and thus attention must be paid to the possibility of an expansion of corporate credit risks.

Corporate credit



Corporate financial soundness



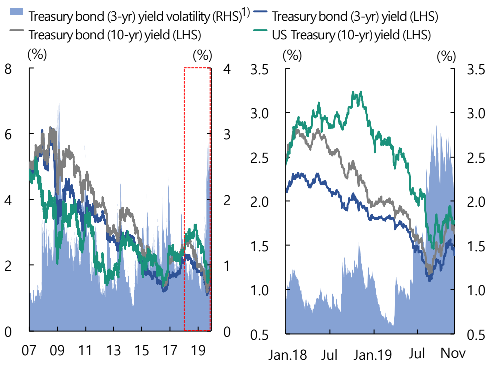
Notes: 1) Based on deposit-taking banks and non-bank financial institutions (mutual credit cooperatives, mutual savings banks, insurance cos. and credit-specialized financial cos.); including financial and insurance companies for certain periods or sectors, due to the limited availability of data.
2) Year-on-year basis.
3) During the quarter (since Q1 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 to a record low in mid-August, on the US-China trade dispute and concerns about a slowdown in the domestic and overseas economies. However, they rebounded rapidly afterward as external conditions improved. In this process, interest rate volatility has expanded greatly.

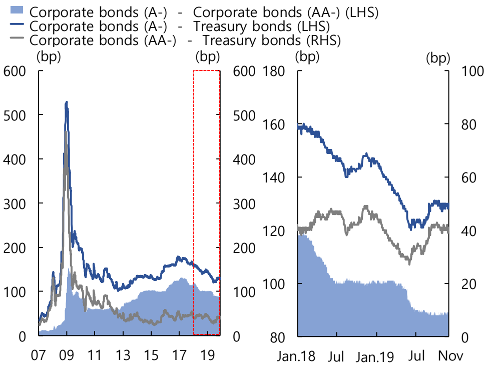
Korean and US Treasury bond yields



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

Corporate bond credit spreads, which had narrowed entering this year, have widened somewhat since June due to the burden of low interest rate levels and to sluggish inflows of bond-type funds. Since October, they have fluctuated within a relatively narrow range.

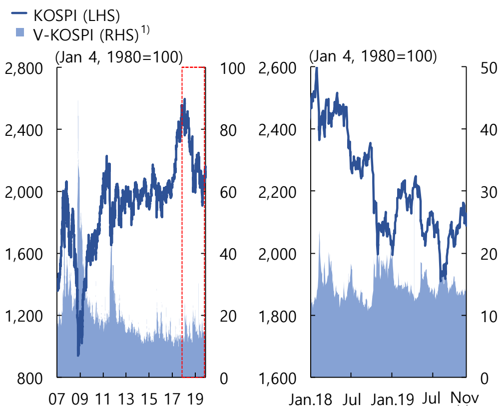
Corporate bond credit spreads,[1] and spread across credit ratings



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

2 Stock prices and stock price volatility have fluctuated, influenced mainly by developments in the US-China trade dispute in the second half of this year.

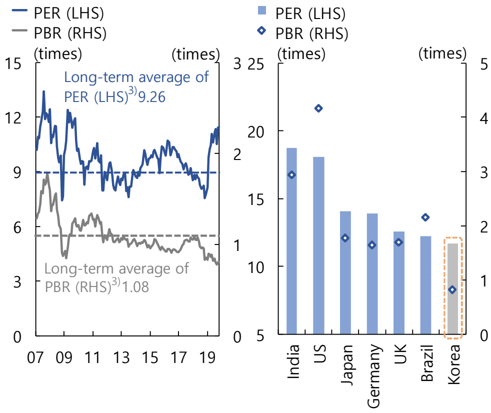
Stock price and stock price volatility indices



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

The price-earnings ratio (PER), showing the level of a firm's stock price relative to its profit, increased to 11.70 as of the end of November and remains above its long-term average (9.26 since 2001). The price-to-book value ratio (PBR), showing a firm's stock price level relative to its liquidation value, stood at 0.81, below the long-term average (1.08). The PER and PBR of listed stocks in Korea are still lower than the corresponding ratios in other major economies.

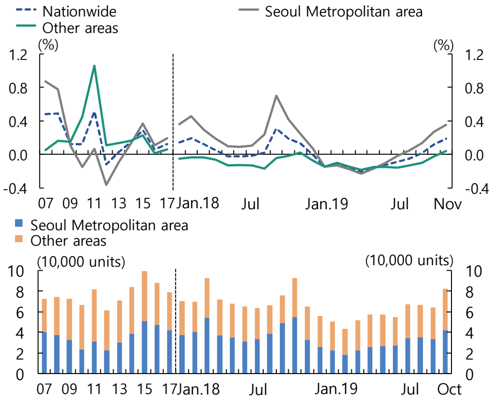
PER[1] and PBR[2]



Notes: 1) MSCI basis (12-month forward). 2) KOSPI basis.
3) Long-term average in the January 2001-November 2019 period.
Sources: Bloomberg, Thomson Reuters.

3 Housing purchase prices shifted to an increase entering September, supported by a rebound in the Seoul Metropolitan area, and the extent of the increase has been expanding. In other regions, housing purchase prices shifted to a rise in November, led by metropolitan cities. In the meantime, leasehold deposit prices rose in October, and monthly rental prices have shifted from a decline to no change recently. The volume of housing sales transactions was far below the average of normal years in the first half of this year, but has increased somewhat in the second half.

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



Notes: 1) For 2017 and earlier, annual average of monthly growth; for 2018 onward, month-on-month increase.
2) For 2017 and earlier, monthl average.
Sources: Korea Appraisal Board, Ministry of Land, Infrastructure and Transport.

Ⅲ. Financial Institutions

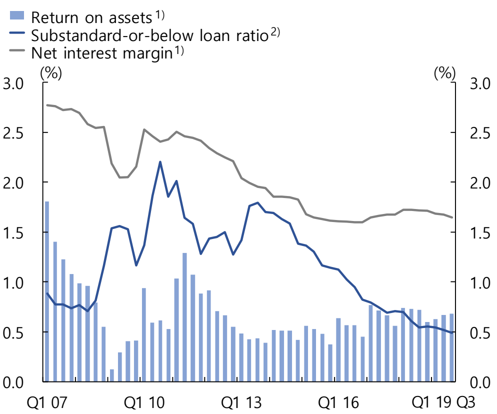
1 The financial soundness of commercial banks has continued to be satisfactory overall.

Commercial banks' assets totaled 1,754 trillion won at the end of the third quarter, up by 8.4% year on year, the fastest growth since the third quarter of 2015 (8.5%). Loans exhibited slightly slower growth, while securities holdings increased significantly.

Commercial banks' asset soundness has continued to improve, with their substandard-or-below loan ratio standing at 0.49%, the lowest since 2000.

Commercial banks' profitability has worsened year on year, however, due mainly to the narrowing of the spread between lending and deposit rates. During the first through third quarters of this year, commercial banks' return on assets (ROA) was 0.68% (annualized), down by 0.04%p from that (0.72%) in the same period of last year.

Commercial bank asset soundness and profitability



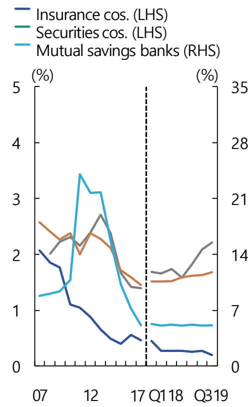
Notes: 1) Accumulated quarterly incomes annualized.
2) End-period basis.
Sources: Commercial banks' business reports.

2 The financial soundness of NBFIs has generally remained favorable, but their profitability has decreased overall and some sectors have exhibited a decline in asset quality. NBFIs' assets increased by 8.0% year on year to total 2,789 trillion won at the end of the third quarter of 2019.

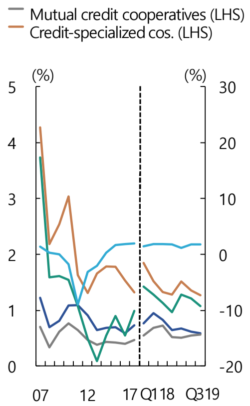
Asset soundness has varied across NBFI sectors. Mutual credit cooperatives, in particular, have seen their delinquency rates and substandard-or-below loan ratios rising, as the volume of overdue loans has expanded in areas where major industries and real estate markets have been in slumps.

The profitabilities of all NBFI sectors have dropped during the first through third quarters this year. The ROAs of insurance companies, in particular, decreased to a larger extent than those of any other sector a year earlier, owing to increased operating losses.

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



NBFI return on assets (ROAs)[2)]



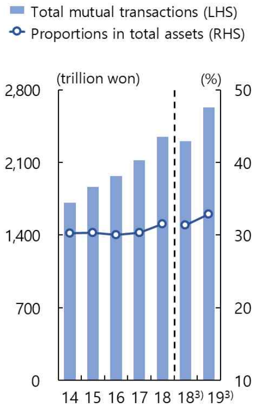
Notes: 1) End-period basis, excluding securities cos.
2) Accumulated quarterly incomes annualized.
Sources: Financial institutions' business reports.

3 Financial institutions' interconnectedness through their funding and operations expanded, centering around the banking sector. The amount of mutual transactions among financial institutions reached 2,629 trillion won at the end of the second quarter of 2019, up by 14.0% year on year. The share of mutual transactions in the total assets of the overall financial sector rose to 32.9%, 1.5%p higher than the same period last year.

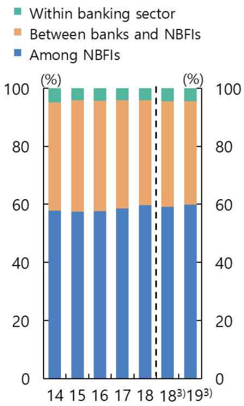
Looking at the proportions across financial sectors, the share of mutual transactions within the banking sector grew by 0.2%p year on year to stand at 4.6%, and that of mutual transactions among non-bank financial institutions by 0.9%p year on year to stand at 60.0%. Meanwhile, that of mutual transactions between banks and NBFIs came to 35.4%, down by 1.1%p.

Analyzing mutual transactions among financial institutions, it appears that the contagion risk across financial sectors rose, while the concentration risk maintained a similar level.

Amounts of mutual transactions among financial institutions[1)]



Proportions of mutual transactions across sectors[1)2)]



Notes: 1) End-period basis (flow of funds statistics).
2) Proportions in total amount of mutual transactions.
3) Based on end-Q2 for each year.
Source: Bank of Korea.

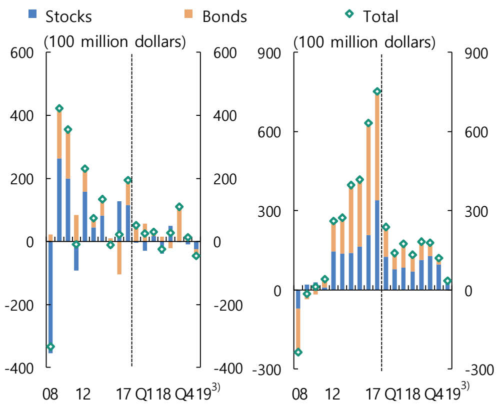
Ⅳ. Capital Flows

From January to November 2019, foreigners' stock investment recorded a net inflow of 1.3 billion dollars and bond investment 9.1 billion dollars. After a trend of inflows in the first half of this year, funds for stock investment have flowed out since August, influenced by the continued uncertainty about the US-China trade dispute and concerns about the economic slowdowns in major countries. Following substantial outflows of bond investment in January this year, centering around private funds, there was a period of overall net inflows followed by a shift back to outflows since October.

Considering the country's economic fundamentals, the possibility of any sudden outflows of foreign investment is assessed not to be high. It should be kept in mind, however, that capital flow volatility could increase, depending on developments surrounding the US-China trade dispute, concerns about domestic and overseas economic slowdowns, and geopolitical risks in some countries.

Domestic residents' overseas portfolio investment has continued to increase, based on foreign currency liquidity that has flowed into Korea due to its current account surplus for example. The scale of increase from January to October 2019, however, fell by 6.6 billion dollars compared to that of the same period last year (58.5 billion dollars) to stand at 51.9 billion dollars.

Changes in foreigners' domestic portfolio investment1) | **Changes in residents' overseas portfolio investment2)**



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 Q4 2019 based on October-November; changes in residents' overseas portfolio investment for Q4 2019 based on October.

Source: Bank of Korea.

[Resilience of Financial System]

Ⅰ. Financial Institutions

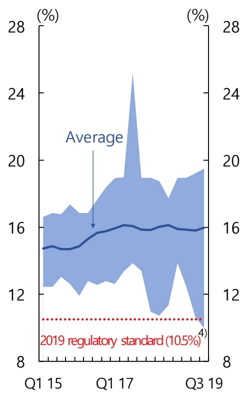
1 Commercial banks' resilience has remained sound overall.

Commercial banks' total capital ratio under Basel III, indicative of banks' loss absorption capacities, stood at 15.96% at the end of the third quarter of 2019, down by 0.16%p from the same period of last year, and their Common Equity Tier 1 capital ratio also showed a year-on-year decrease of 0.15%p to stand at 13.32%. However, the total capital ratios and Common Equity Tier 1 capital ratios of all banks still exceeded the regulatory standards.

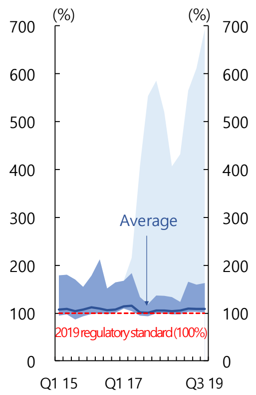
Commercial banks' liquidity coverage ratio (LCR), measuring the ability to respond to sudden net outflows of funds, stood at 109.1% at the end of the third quarter of 2019, a year-on-year increase of 4.4%p.

Commercial banks are expected to maintain their stable level of resilience going forward as well, but they should prepare for the possibility of a decline in profitability and of an increase in credit risks of vulnerable borrowers.

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 distribution with Internet-only banks excluded.
4) 8.0% for Internet-only banks.

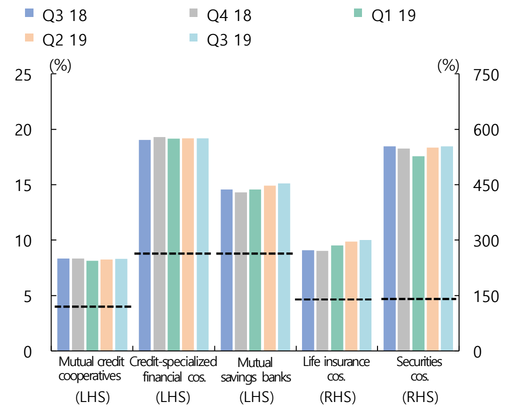
Sources: Commercial banks' business reports.

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.

Life insurance companies' risk-based capital ratio increased by 28.7%p to 300.8% at the end of the third quarter of 2019 from 272.1% at the same period last year, due mainly to the increased gains f rom bond valuation in line with the drop in market rates. The BIS capital ratio of mutual savings banks also rose by 0.6%p over the same period, from 14.5% to 15.1%. The capital adequacy ratios of mutual credit cooperatives, credit-specialized financial companies and securities firms maintained their levels of the same period last year, far above the supervisory standards.

NBFIs will need to continuously expand their capital buffers, as profitability has recently been falling in most sectors and asset soundness has been also worsening in some sectors.

NBFI capital adequacy ratios[1)2)]



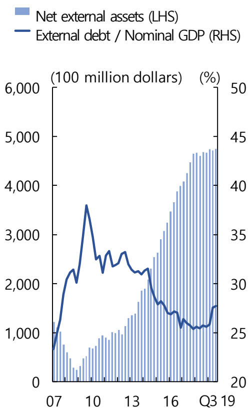
Notes: 1) Mutual credit cooperatives' net capital ratio (supervisory standard 2%; 4% for MG community credit cooperatives and 5% for NongHyup), credit-specialized financial companies' adjusted capital ratio (7%; 8% for credit card companies), mutual savings banks' BIS capital ratio (7%; 8% for banks 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

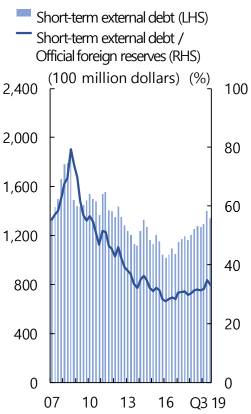
Korea's external payment capacity has remained satisfactory.

Amid a steady increase in net external assets, the ratio of external debt relative to nominal GDP has remained at a stable level. The official foreign reserves hit a historically high level at 407.5 billion dollars at the end of November 2019. The ratio of short-term external debt relative to official foreign reserves was 33.2% as of the end of the third quarter of 2019, maintaining a level similar to the average of recent years (33.3% between 2012 and 2018).

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 Infrastructure

The settlement volumes of BOK-Wire+ and the other major payment and settlement systems have continued to increase, led by securities settlement by financial institutions, and electronic funds transfers by general customers and companies. The settlement risks have been managed at a stable level.

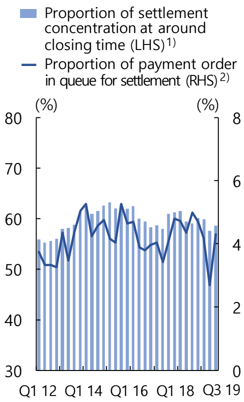
The maximum intraday overdraft cap exhaustion rate and the proportion of payment orders in queue for settlement, indicative of the level of settlement liquidity of participants in the nation's large-value payment system, BOK-Wire+, maintained generally stable levels of 20.5% and 4.3% respectively in the third quarter of 2019. The proportion in the total volume of settlements through BOK-Wire+ of those carried out at around the closing time (16:00-17:30) stood at 58.6% during the third quarter of this year, similar to that of the first quarter of this year (59.8%).

The net debit cap utilization rates, showing settlement risks related to the retail payment systems operated by Korea Financial Telecommunications & Clearing Institute, have also been managed at low levels.

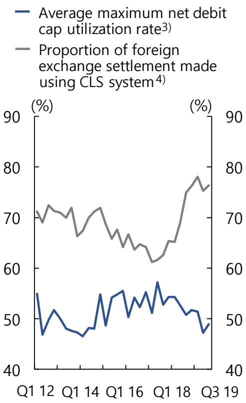
Meanwhile, among all foreign exchange settlements made through the foreign exchange settlement systems, the share of those handled by the CLS payment-versus-payment system, which reduces settlement risk effectively through the settlement of foreign exchange transactions without any time lag, fell slightly from 78.1% in the first quarter to 76.3% in the third quarter of 2019. On an annual basis, however, it has continued to increase modestly.

Going forward, continuing efforts to ensure the stability of the payment and settlement systems will be necessary, since changes in the payment and settlement environment are expected with the increased complexities and interconnectedness of the payment and settlement systems.

Large-value payment system



Retail payment and foreign exchange settlement systems



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

Source: Bank of Korea.