III Monetary policy and domestic financial markets

The Central Bank's key interest rate has been unchanged since October 2017, but its real rate has fallen and the real interest rate differential with abroad has narrowed. Other market rates have developed broadly in line with the Bank's key rate, and market agents expect the key rate to remain unchanged in the coming term. The risk premium on Treasury foreign obligations has fallen to its lowest in a decade, and the króna has appreciated since February. At the same time, capital inflows into the domestic bond market have been negligible and inflows into listed equities have eased. Growth in M3 has eased, but credit growth has picked up, particularly corporate lending. On the other hand, house price inflation has slowed, and share prices have been relatively stable after an abrupt rise early this year. Private sector debt ratios rose in 2017, for the first time since the onset of the financial crisis, but are still low in historical context. Private sector financial conditions have improved overall.

Monetary policy

Nominal Central Bank interest rates unchanged ...

The Central Bank's Monetary Policy Committee has held the Bank's interest rates unchanged since October 2017, when it lowered them by 0.25 percentage points. The Bank's key rate — that is, the rate on seven-day term deposits — was 4.25% just before the publication of this *Monetary Bulletin* and has only once been lower since the start of the inflation-targeting regime in 2001 (Chart III-1). Accepted rates in auctions of bills issued by the Treasury and the banks have developed in line with the Bank's key rate, as have interbank rates, but there has been no trading in the interbank market thus far in 2018.

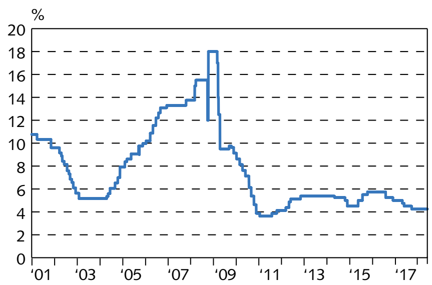
... but the Bank's real rate has fallen slightly ...

The monetary stance has eased in the recent term, with the reduction in Bank's key rate and the rise in inflation and inflation expectations (see Chapter VI). The Bank's real rate in terms of the average of various measures of inflation and one-year inflation expectations is now 1.5% (Table III-1). It has fallen by 0.1 percentage points since February and by 1.2 percentage points since May 2017. The Bank's real rate in terms of current twelve-month inflation is 1.9%, just over 1 percentage point lower than it was a year ago. On the whole, the decline in the Bank's real rate has been transmitted to other market rates (Chart III-2) and to financial institutions' lending rates (discussed further later in this chapter).

... and the real interest rate differential with abroad has therefore narrowed still further

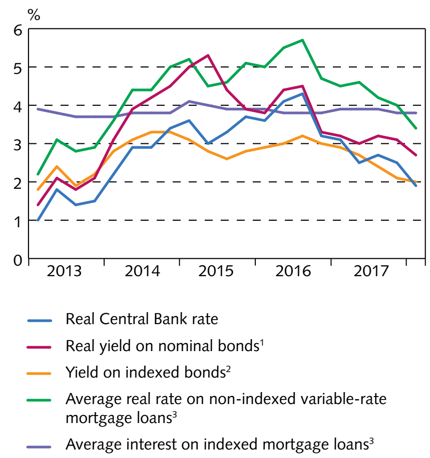
The nominal interest rate differential with main trading partners has narrowed in the past two years, but in Q1/2018 it was broadly the same as at year-end 2017 (Chart III-3). The real interest rate spread has been growing smaller since Q2/2017, and it narrowed still further in Q1/2018, as domestic real rates have been falling. The monetary

Chart III-1
Central Bank of Iceland key interest rate[1]
3 January 2001 - 11 May 2018



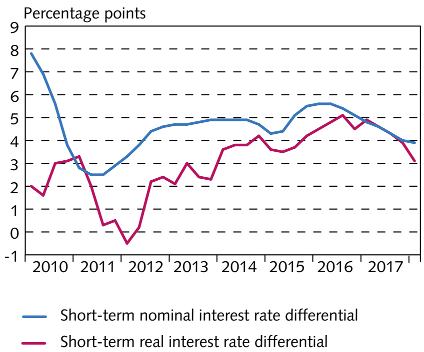
1. The Central Bank's key interest rate is defined as follows: the 7-day collateralised lending rate (until 31 March 2009), the rate on deposit institutions' current accounts with the Central Bank (1 April 2009 - 30 September 2009), the average of the current account rate and the rate on 28-day certificates of deposit (1 October 2009 - 20 May 2014), and the rate on 7-day term deposits (from 21 May 2014 onwards).
Source: Central Bank of Iceland.

Chart III-2
Real Central Bank interest rate and real market rates
Q1/2013 - Q1/2018



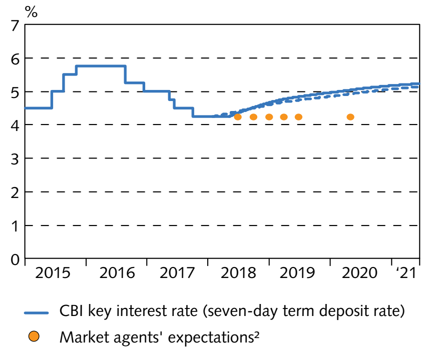
1. Five-year rate from the estimated nominal yield curve. 2. Five-year rate from the estimated real yield curve. 3. Simple average lowest lending rates from the three largest commercial banks. Fixed-rate period of five years or more on indexed mortgage loans.
Source: Central Bank of Iceland.

Chart III-3
Interest rate differential with main trading partners[1]
Q1/2010 - Q1/2018



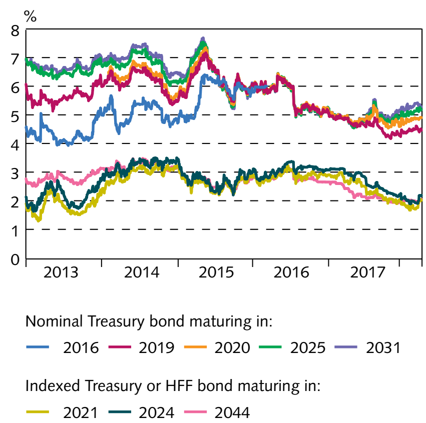
1. The difference between the Central Bank of Iceland's key interest rate and the weighted average key rate in Iceland's main trading partner countries. Real rates are based on twelve-month inflation.
Sources: Thomson Reuters, Central Bank of Iceland.

Chart III-4
Central Bank of Iceland key interest rate and expected developments[1]
1 January 2015 - 30 June 2021



1. The Central Bank's key interest rate and Treasury bond yields were used to estimate the yield curve. Broken lines show forward market interest rates prior to MB 2018/1. 2. Estimated from the median response in the Central Bank's survey of market agents' expectations concerning the collateralised lending rate. The survey was carried out during the period 2-4 May 2018.
Source: Central Bank of Iceland.

Chart III-5
Nominal and indexed bond yields
2 January 2013 - 11 May 2018



Source: Central Bank of Iceland.

stance remains tighter in Iceland than in other advanced economies, owing – as before – to differences in the business cycle position. Even though growth has eased and the output gap narrowed, it is still considerably larger in Iceland than in other developed countries (see Chapters II and IV).

Table III-1 The monetary stance (%)

Real interest rate in terms of:[1]	*Current stance (11 May '18)*	*Change from MB 2018/1 (2 Feb. '18)*	*Change from MB 2017/2 (12 May '17)*
Twelve-month inflation	1.9	0.1	-1.1
Business inflation expectations (one-year)	1.2	-0.5	-1.2
Household inflation expectations (one-year)	1.2	-0.1	-0.7
Market inflation expectations (one-year)[2]	1.6	0.1	-1.1
One-year breakeven inflation rate[3]	1.6	0.0	-1.4
Central Bank inflation forecast[4]	1.6	0.0	-1.3
Average	1.5	-0.1	-1.2

1. The nominal rate on financial institutions' seven-day term deposits with the Central Bank. 2. Based on survey of market participants' expectations. 3. The one-year breakeven inflation rate based on the difference between the nominal and indexed yield curves (five-day moving average). 4. The Central Bank forecast of twelve-month inflation four quarters ahead
Source: Central Bank of Iceland.

Market agents expect unchanged interest rates

According to the Central Bank's quarterly survey of market agents' expectations, carried out in early May, respondents expect the Bank's key rate to be held unchanged at 4.25% for the next two years, as they did in early February (Chart III-4). The forward yield curve is slightly upward-sloping, however.

Market interest rates and risk premia

Bond yields similar to early February levels

Yields on indexed Treasury and Housing Financing Fund (HFF) bonds have been falling since H2/2016 (Chart III-5). Nominal Treasury bond yields began to rise late in 2017, however, and the breakeven inflation rate in the bond market began to rise as a result (see Chapter VI). This trend continued in early 2018 but has reversed to an extent in the past few days, after indexed bond yields began to climb again in late April. Indexed and nominal bond yields are therefore broadly where they were just before the publication of the February *Monetary Bulletin*.

The spread between long and short nominal Treasury bonds is also broadly unchanged since the February *Monetary Bulletin*, and the nominal yield curve is still upward-sloping, as it has been since H2/2017. Bond market turnover has contracted in the recent term, as the supply of Government-guaranteed bonds has shrunk. Treasury bond issuance has declined in tandem with the Treasury's financing need, and no HFF bonds have been issued in the past six years. It is also possible that the liberalisation of restrictions on residents' foreign investment has reduced demand for Treasury bonds and therefore affected bond market turnover.

Inflows into the bond market have all but halted

Capital inflows for new investment amounted to just under 23 b.kr. in the first four months of the year, and outflows were just over 7 b.kr. (Chart III-6). New investment in the domestic bond market has been negligible year-to-date. Inflows into listed equities, which are not subject to the Central Bank's special reserve requirement, have also contracted during the year (as is discussed later in this chapter), while inflows into other investments have increased.

Risk premia on Treasury foreign obligations are at their lowest in a decade

Measures of risk premia on the Treasury's foreign obligations declined by as much as ½ a percentage point in December, after Iceland's sovereign credit rating was upgraded and the Treasury issued a new eurobond (Chart III-7). They have been largely unchanged since then and currently measure ½ a percentage point, the lowest in a decade. Iceland's sovereign CDS spread is therefore broadly in line with the CDS spreads of other sovereigns with comparable credit ratings. Spreads on domestic commercial banks' foreign bond issues have also fallen in recent months, alongside the decline in the risk premium on the Treasury and the upgrades in the banks' credit ratings.

Exchange rate of the króna

Net capital outflows have subsided ...

Capital outflows increased after the capital controls were lifted in March 2017. The rise was related to deleveraging of foreign debt, although resident investors are also increasing their foreign securities holdings, as it is likely that they are interested in rebalancing their asset portfolios after nearly a decade of capital controls. Net capital outflows excluding changes in the Central Bank's international reserves totalled 55.4 b.kr. in Q3/2017 (Chart III-8). Outflows subsided again in Q4, however, to a total of 14.8 b.kr. The main factor in this was an increase in ownership of foreign equity securities by resident investors, pension funds in particular.

... and the króna has appreciated

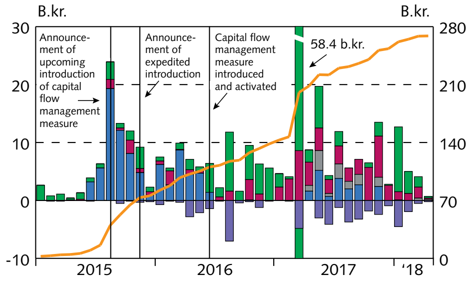
The króna has appreciated by 1.4% in trade-weighted terms since the February *Monetary Bulletin*, and by 2% year-to-date. However, it is 3% weaker than it was in May 2017, and 8.4% below its June 2017 peak. As is discussed above, it appears as though foreign currency flows to and from Iceland have become more balanced, and the temporary volatility following the liberalisation of the capital controls in March 2017 has subsided (Chart III-9). Exchange rate fluctuations are now similar to the 2014-2016 average, and somewhat less than the average in other advanced economies.[1] In another sign of more balanced capital flows, the domestic commercial banks have traded very little in the interbank foreign exchange market, and trading volume year-to-date has totalled only 38.6 b.kr., considerably less than over the same period in the past five years. In line with the Central Bank's declared objective of intervening primarily to mitigate excess short-term exchange rate volatility, the Bank has only made two transactions in the interbank market since mid-2017, buying

1. A discussion of fluctuations in the exchange rate of the króna in international context can be found in Box 1 in *Monetary Bulletin* 2017/4.

Chart III-6

Capital flows due to registered new investments[1]

January 2015 - April 2018



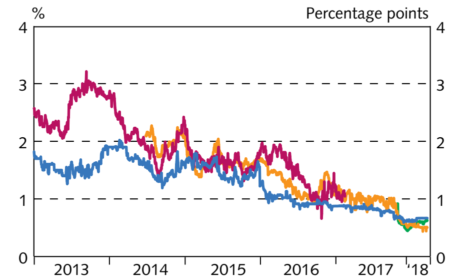
Capital inflows into government bonds (left)
Capital inflows into listed shares (left)
Other capital inflows (left)[2]
Capital inflows into special reserve accounts (left)
Capital outflows (left)
Cumulative net capital flows (right)

1. Investment commencing after 31 October 2009 and based on new inflows of foreign currency that is converted to domestic currency at a financial instititution in Iceland. 2. Other inflows in March 2017 derive almost entirely from non-residents' acquisition of a holding in a domestic commercial bank.
Source: Central Bank of Iceland.

Chart III-7

Risk premia on Icelandic Treasury obligations

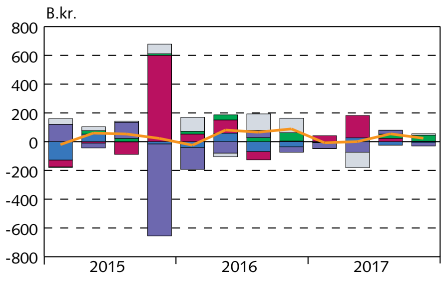
2 January 2013 - 11 May 2018



CDS spread (left)[1]
Spread versus US Treasury bond (right)[2]
Spread versus German government bond (right)[3]
Spread versus German government bond (right)[4]

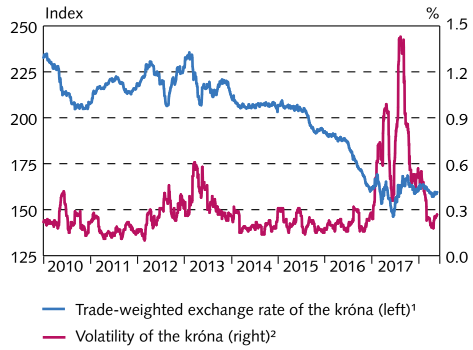
1. Five-year USD obligations. 2. USD bonds maturing in 2022. 3. Eurobonds maturing in 2020. 4. Eurobonds maturing in 2022.
Source: Bloomberg.

Chart III-8
Capital flows[1]
Q1/2015 – Q4/2017



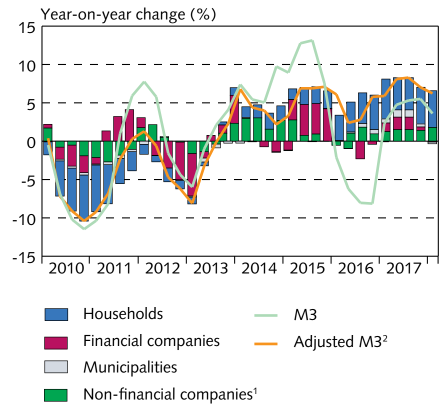
1. Financial account balance (net capital outflows) and net capital flows to foreign direct investment, portfolio investment (bonds, derivatives, and equities), and other investment (mostly bank notes and deposits as well as loans). Figures with a positive (negative) sign indicate an increase (decrease) in residents foreign assets or a decrease (increase) in their foreign liabilities. Large movements in Q4/2015 reflect the settlement of the failed banks' estates.
Source: Central Bank of Iceland.

Chart III-9
Exchange rate and volatility of the króna
4 January 2010 - 11 May 2018



1. Price of foreign currency in terms of the króna. 2. 30-day standard deviation of daily changes in the trade-weighted exchange rate index.
Source: Central Bank of Iceland.

Chart III-10
Money holdings
Q1/2010 - Q1/2018



1. Non-financial companies and non-profit institutions serving households 2. Adjusted for deposits of failed financial institutions.
Source: Central Bank of Iceland.

currency for a total of 1.5 b.kr. This is a significant change from the period before between 2014 and 2017, when the Bank's net foreign currency purchases averaged 210 b.kr. per year.

Market agents expect a slight depreciation in the near term
According to the Bank's survey of market agents' expectations, conducted in early May, respondents expect the exchange rate of the króna to be slightly lower in May 2019. In the last three surveys, they expected the króna to be almost unchanged one year ahead.

Money holdings and lending

Deposit institutions' excess króna reserves have grown ...
Banknotes and coin have increased at roughly the same pace as in the past few years, in tandem with growth in economic activity and foreign tourist arrivals. Deposit institutions' excess króna reserves — i.e., liquid deposits with the Central Bank over and above reserve requirements — have also increased year-on-year.

... while growth in broad money has eased ...
Annual growth in M3 measured 6.2% in Q1/2018, after adjusting for deposits of failed financial institutions (Chart III-10). This is a slower growth rate than in the three quarters immediately preceding. It appears to have fallen below nominal GDP growth once again in Q1, after having exceeded GDP growth for all of 2017, when the ratio of M3 to GDP rose year-on-year for the first time, after a continuous decline dating back to the onset of the financial crisis in 2008.

... and, as before, growth is due to an increase in household deposits
As in the recent past, growth in money holdings is due primarily to an increase in household deposits, which grew by 10.3% year-on-year in Q1. The annual growth rate has averaged just under 10% since Q3/2016. Households' disposable income has risen steeply in recent years, and their savings have increased as well (see Chapter IV). This strong growth in deposits is also due in part to increased household lending, however. Household deposits totalled 812 b.kr. in Q1 and are now at about H2/2007 levels in real terms.[2] As a share of GDP, however, they are considerably less than they were then.

Growth in lending to domestic borrowers has picked up
Growth in credit system lending to domestic borrowers has been relatively slow in recent years, in spite of strong growth in domestic demand. However, it picked up in H2/2017. After adjusting for the effects of the Government's debt relief measures, the stock of credit system loans to domestic borrowers grew in nominal terms by 5.3% year-on-year in Q3/2017 and by 6.3% in Q4 (Chart III-11). In Q1/2018, credit growth measured 6.9%, the strongest in a decade.

2. For further discussion of post-crisis developments in money holdings, see Box III-1 in *Monetary Bulletin* 2014/2.

Corporate lending has grown apace in the recent past ...

Credit system lending to non-financial corporations has increased in the past few quarters. In nominal terms, loans increased by 9.7% year-on-year in Q1, as opposed to 9.1% annual growth in Q4/2017 and 7.1% in Q3. This increased credit growth extends to a greater number of sectors than before (Chart III-12). Loans to services firms — real estate companies in particular — are still growing fastest, although loans to construction firms and tourism-related companies are also growing, reflecting the strong investment activity in those sectors (see Chapter IV).

... and lending to households continues to rise

After adjusting for the effects of the Government's debt reduction measures, the stock of credit system loans to households grew by 5.7% year-on-year in Q1/2018 (Chart III-13), slightly higher than in the two quarters immediately preceding. Loans from pension funds still account for the bulk of the increase, and their share in the lending market therefore continues to grow. Pension fund loans now account for 17.5% of the total stock of credit system loans to households, up from 9.5% at the beginning of 2016. Loans to fund members therefore account for a larger share of the pension funds' net assets than before. They had fallen to a historical low in late 2015 and are now close to the twenty-year average. Offsetting the increase in lending by pension funds and deposit institutions, the HFF's lending has continued to contract. The Fund's share of the lending market is now about the same as that of the pension funds.

Asset prices and financial conditions

House price inflation has slowed markedly ...

According to information from Registers Iceland, house prices in greater Reykjavík rose by 7.7% year-on-year in March, and rent was up 10%. The twelve-month rise in house prices has slowed significantly since peaking at nearly 24% in May 2017. The number of registered purchase agreements in the capital area declined by nearly 10% between years in 2017, and by 5.8% in 2018 to date. To a large extent, fewer purchase contracts and an increase in new construction explain the rise in the number of properties advertised for sale since H1/2017; however, the number of flats on the market has held steady at around 1,500 since autumn 2017 (Chart III-14). The average time-to-sale for capital area homes was 2.6 months in March, nearly 1.5 months longer than it was a year ago. The recent rise in greater Reykjavík house prices has probably stimulated demand for housing in neighbouring municipalities. This increased demand for housing outside the greater Reykjavík area has pushed house prices up in these communities: the market price of properties in regional Iceland rose by just under 15% year-on-year in April, compared to 10% nationwide.

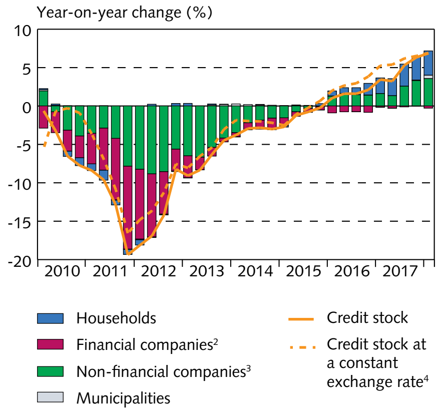
... and house price imbalances relative to fundamentals have eased slightly

Real house prices rose by just over 16% between years in 2017 and have risen roughly 50% from the early 2010 trough. This steep in-

Chart III-11

Credit system lending to resident borrowers and sectoral contribution[1]

Q1/2010 - Q1/2018

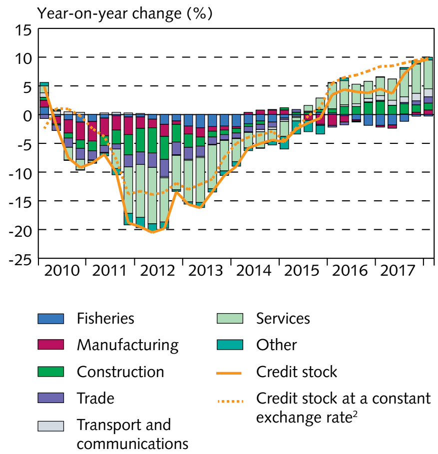


1. Credit stock adjusted for effect of reclassification and Government debt relief measures. Only loans to pension fund members are included with pension funds. 2. Excluding loans to deposit institutions and failed financial institutions. 3. Non-financial companies and non-profit institutions serving households. 4. The foreign-denominated credit stock is calculated using the March 2018 trade-weighted exchange rate index value.
Source: Central Bank of Iceland.

Chart III-12

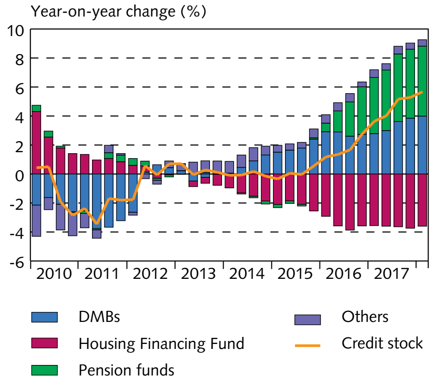
Credit system lending to non-financial companies[1]

Q1/2010 - Q1/2018



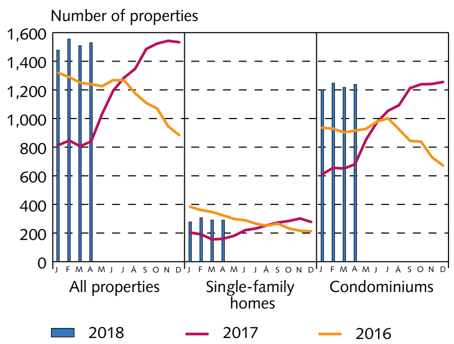
1. Excluding loans from failed financial institutions. 2. The foreign-denominated credit stock is calculated using the March 2018 trade-weighted exchange rate index value.
Source: Central Bank of Iceland.

Chart III-13
Credit system lending to households[1]
Q1/2010 - Q1/2018



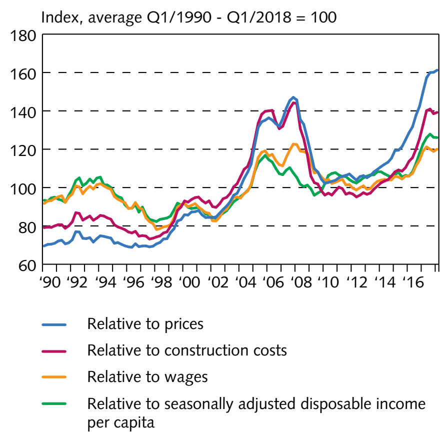
1. Credit stock adjusted for effect of reclassification and Government debt relief measures.
Source: Central Bank of Iceland.

Chart III-14
Residential properties for sale in the capital area[1]
January 2016 - April 2018



1. Monthly average of advertisements on Morgunblaðið real estate website. The count is carried out by property code so as to avoid a repeat count of the same property.
Source: Morgunblaðið real estate website.

Chart III-15
House prices relative to prices, construction costs, wages, and income[1]
Q1/1990 - Q1/2018



1. The ratio of house prices to the CPI, the building cost index, the wage index, and disposable income per capita (based on the working-age population).
Sources: Statistics Iceland, Central Bank of Iceland.

crease has been accompanied by a growing imbalance between house prices and the economic fundamentals that generally determine them (Chart III-15). This imbalance receded slightly again last autumn, when house price inflation began to ease. There is still some incentive for new construction, however, in terms of the ratio between house prices and construction costs. As is discussed in *Monetary Bulletin* 2017/4, the rise in house prices in the recent cyclical upswing is unlike the one in 2001-2007. The rise in labour income is similar for both periods, but the former period was characterised to a much greater degree by a surge in household borrowing, whereas the current situation is not.

Share prices have been relatively stable after rising early this year

The OMXI8 index is currently 0.5% higher than it was at the time of the February *Monetary Bulletin* but 10.2% lower than in mid-May 2017. Share prices began rising at the beginning of this year, after sliding in H2/2017. The OMXI8 index remained relatively stable from early February until just before the publication of this *Monetary Bulletin*, whereupon it fell suddenly (Chart III-16), owing mainly to a decline in Icelandair share prices following publication of April passenger numbers and a decline in insurance companies' share prices. Listed companies' year-2017 earnings reports, published in February, were in most cases consistent with expectations, and share prices were relatively unaffected. Exporters' and oil companies' share prices have fallen most in recent months. Most of the newly published earnings reports for Q1/2018 were either in line with or just below market expectations.

In the first four months of the year, turnover in the Nasdaq Iceland Main Market totalled approximately 190 b.kr., about 24% less than over the same period in 2017, as trading volumes rose to record highs in February and March last year, after the publication of annual earnings reports. In addition, new capital inflows for investment in listed equities totalled nearly 5 b.kr. in the first four months of 2018, as opposed to 19 b.kr. over the same period last year (see Chart III-6 above).

Private sector debt ratio rose in 2017 ...

Private sector debt totalled 163% of GDP at the end of 2017, some 2 percentage points higher than at year-end 2016. It was the first year-on-year increase in the debt ratio since the onset of the financial crisis in 2008 (Chart III-17). Corporate debt increased by 6.6% year-on-year in nominal terms, to 86% of GDP, 2 percentage points higher than at the end of 2016. Corporate debt to domestic financial institutions grew most, whereas there was little change in issued marketable bonds and debt to foreign financial institutions (for further discussion, see Box 1). Household debt increased by 4.9% over the same period, giving an end-2017 debt ratio of 77%.

Even though the debt ratio rose between years in 2017, it is still low in historical context. As is discussed in *Monetary Bulletin* 2017/4, households' and businesses' equity position has improved markedly in recent years, and their year-end 2016 equity ratio was above the peak in the last upswing.

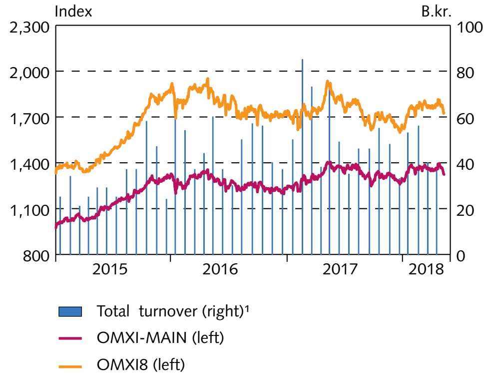
... but household non-performing loan ratios have declined still further

The share of non-performing household loans from the three large commercial banks and the HFF has declined still further in recent months. It measured 2.7% of total lending at the end of March 2018, down from 4.3% a year earlier. Furthermore, the number of individuals on the CreditInfo default register declined by 5.7% year-on-year in April. Credit institutions' non-performing corporate loan ratio was 7.9%, down by 1 percentage point year-on-year. The number of firms on the default register also declined marginally between years in April. The number of corporate insolvencies declined between years in 2017 but rose again in Q1/2018. New company registrations declined slightly in number in 2017 and continued to fall in Q1/2018.

Transmission of policy rate to lending rates has strengthened

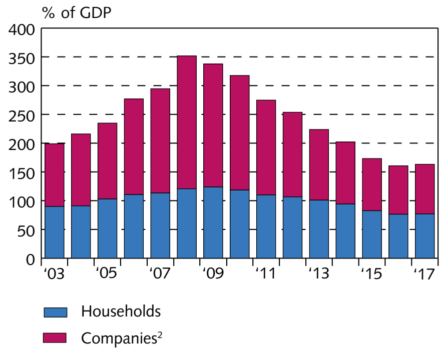
The commercial banks' non-indexed deposit and lending rates and the pension funds' non-indexed lending rates have generally followed the Central Bank's interest rate reductions since the monetary easing phase began in August 2016. Indexed interest rates have been broadly unchanged over this period, however, apart from variable rates charged by some of the pension funds. As before, pension fund loans bear somewhat lower interest rates than comparable loans from the commercial banks. As is discussed in Box 1, the share of non-indexed loans to households has increased since the beginning of 2015, as has the pension funds' share of new loans. The impact of policy rate changes on lending rates has therefore grown stronger.

Chart III-16
Equity market
2 January 2015 - 11 May 2018



1. Total monthly volume of listed shares.
Source: Nasdaq OMX Iceland.

Chart III-17
Household and non-financial corporate debt 2003-2017[1]



1. Debt owed to financial undertakings and market bonds issued. 2. Excluding financial institutions (which includes holding companies).
Sources: Statistics Iceland, Central Bank of Iceland.