

## III Monetary policy and domestic financial markets

The Central Bank's key rate is unchanged since the February *Monetary Bulletin* but has fallen since August 2016. Market agents expect it to fall even further this year. Although the key rate is lower, it remains high in international context, reflecting a large dispersion in economic conditions in Iceland and other advanced economies. Bond market yields have fallen and risk premia on foreign Treasury obligations as well. The exchange rate of the króna has begun to rise again, following a dip earlier in the year. Broad money and credit system lending have increased, albeit less than overall economic activity. House prices have risen steeply in the recent past, and share prices are up again. Private sector financial conditions therefore continue to improve.

### Monetary policy

#### Nominal Central Bank rates unchanged since end-2016 ...

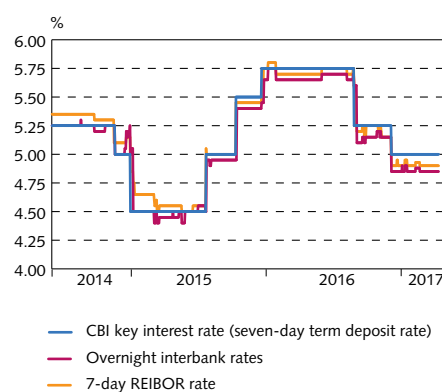
The Central Bank of Iceland Monetary Policy Committee decided at its meetings in February and March to keep the Bank's interest rates unchanged, after having lowered them by a total of 0.75 percentage points in two increments in H2/2016. Prior to the publication of this *Monetary Bulletin*, the Bank's key interest rate – the rate on seven-day term deposits – was 5% (Chart III-1). Interest rates in the interbank market for krónur have developed in line with the key rate, but market turnover has increased year-on-year in 2017 to date.

Accepted rates in auctions of bills issued by the banks have also tracked Central Bank rates and are similar to the Bank's key rate. However, interest rates in Treasury bill auctions have risen by 4.3 percentage points since February, to 5%. Owners of offshore króna assets have been the largest owners of Treasury bills in the recent term, as they have had limited investment options available to them, most of them low-yielding ones. The increase in the most recent auctions is due to reduced demand following the agreement these owners reached with the Central Bank in mid-March, under which the Bank bought offshore króna assets in the amount of about 90 b.kr., including almost the entire stock of outstanding Treasury bills.

#### ... as is the Bank's real rate

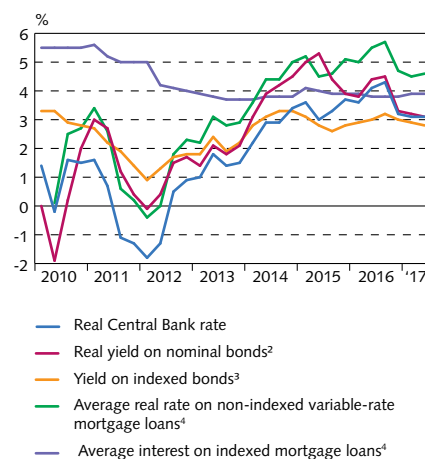
The Bank's real rate measures 2.7% in terms of the average of various measures of inflation and inflation expectations and 3% in terms of past twelve-month inflation (Table III-1). The monetary stance is therefore broadly unchanged since the publication of the February *Monetary Bulletin*. The real rate is as much as 1½ percentage points lower than it was prior to the reduction in the key rate in August, however. This has largely been transmitted to other real rates, although it has affected indexed bond and mortgage lending rates least (Chart III-2). As is discussed in *Monetary Bulletin* 2016/4, monetary policy transmission along the interest rate channel appears to have normalised after the Bank's capital flow management measure was activated in early June 2016.

Chart III-1  
Central Bank of Iceland key interest rate and short-term market rates  
Daily data 2 June 2014 - 12 May 2017



Source: Central Bank of Iceland.

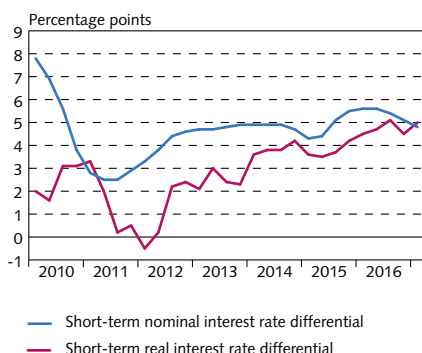
Chart III-2  
Real Central Bank interest rate and real market rates  
Q1/2010 - Q2/2017<sup>1</sup>



1. Based on data until 12 May 2017. 2. Five-year rate from the estimated nominal yield curve. 3. Five-year rate from the estimated real yield curve. 4. 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<sup>1</sup>

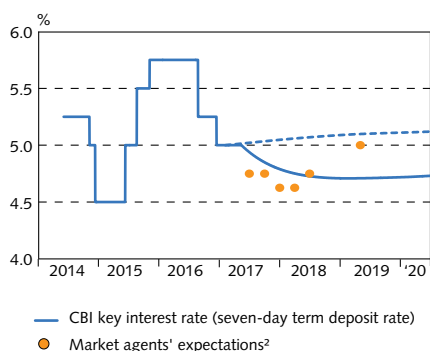
Q1/2010 - Q1/2017



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 current twelve-month inflation.  
Sources: Macrobond, Central Bank of Iceland.

Chart III-4  
Central Bank of Iceland key interest rate and expected developments<sup>1</sup>

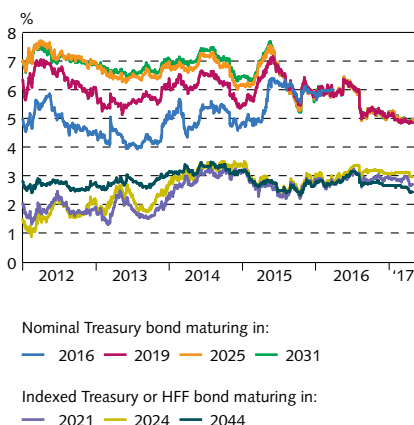
Daily data 1 June 2014 - 30 June 2020



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 since the last MB 2017/1. 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 2017.  
Source: Central Bank of Iceland.

Chart III-5  
Nominal and indexed bond yields

Daily data 2 January 2012 - 12 May 2017



Source: Central Bank of Iceland.

## Interest rates still markedly higher in Iceland than in other industrialised countries

The nominal interest rate spread against Iceland's main trading partners narrowed last year, in line with the reduction in the Bank's key rate. In spite of this, it is still nearly the widest since Iceland's post-crisis economic recovery began (Chart III-3). The real interest rate differential has continued to increase since the beginning of 2012, however, as the difference between the economic recovery in Iceland versus other advanced economies has grown more pronounced. Other advanced economies still have a sizeable negative output gap, while in Iceland there is a relatively wide positive gap (see Chapter V). Nominal demand growth and wage increases have also been considerably more in Iceland. Even though inflation expectations appear to have become more firmly anchored than before in Iceland, which contributed to last year's nominal interest rate cuts, the anchor probably remains weaker than in other advanced economies. All of these factors have called for a tighter monetary stance in Iceland than in neighbouring countries.

## Markets expect further rate cuts this year

According to the results of the Central Bank's market expectations survey, carried out in the beginning of May, respondents expect the Bank's key rate to be lowered by 0.25 percentage points in Q2/2017 and again in Q4/2017 (Chart III-4). They expect it to be raised again to 4.75% in Q2/2018, however. This is a lower rate than they expected in the January survey. Market expectations are consistent with indications from forward interest rates.

Table III-1 The monetary stance (%)

|   | Current stance<br>(12/5 '17) | Change from<br>MB 2017/1<br>(3/2 '17) | Change from<br>MB 2016/2<br>(6/5 '16) |
|---|------------------------------|---------------------------------------|---------------------------------------|
| <i>Real interest rate in terms of:<sup>1</sup></i>    |                              |                                       |                                       |
| Twelve-month inflation                                | 3.0                          | 0.0                                   | -1.1                                  |
| Business inflation expectations (one-year)            | 2.4                          | -0.5                                  | -0.3                                  |
| Household inflation expectations (one-year)           | 1.9                          | 0.0                                   | -0.4                                  |
| Market inflation expectations (one-year) <sup>2</sup> | 2.7                          | 0.3                                   | 0.2                                   |
| One-year breakeven inflation rate <sup>3</sup>        | 3.0                          | 0.2                                   | 0.1                                   |
| Central Bank inflation forecast <sup>4</sup>          | 2.9                          | 0.5                                   | 0.8                                   |
| Average   | 2.7                          | 0.1                                   | -0.1                                  |

1. Based on the 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 interest rates and risk premia

### Bond market yields have fallen

Yields on nominal and indexed bonds have fallen by up to 0.3 percentage points since the publication of the February *Monetary Bulletin* (Chart III-5). The decline in bond yields appear to reflect market agents' reduced inflation expectations and their expectations of a lower key rate. This is consistent with the results of the Bank's May survey of market agents' expectations (see above and in Chapter VI), which also indicate that survey participants expect bond yields to be lower in

coming years than they expected in late January. Yields on the commercial banks' covered bonds have developed similarly since February.

Capital inflows related to new investment in the bond market increased in April but remain limited, as they have been since the Bank activated its capital flow management measure in June 2016 (Chart III-6). On the other hand, inflows for investment in other assets have continued, particularly to include direct investment in Icelandic firms and portfolio investment in listed equities.

### Risk premia on Treasury foreign obligations have fallen

In January 2017, rating agency Standard & Poor's (S&P) upgraded Iceland's sovereign rating from BBB+ to A-, and Fitch Ratings changed the outlook on its ratings for the sovereign from stable to positive. After the capital controls were lifted in mid-March and the Central Bank reached an agreement with owners of offshore króna assets concerning the purchase of about half of the outstanding stock, S&P upgraded the sovereign again, this time to A, with a stable outlook. Other international rating agencies also indicated that liberalisation would have a positive impact on Iceland's ratings. Subsequently, risk premia on the Treasury's foreign obligations have fallen to their lowest since the beginning of 2008 (Chart III-7). Interest premia on the commercial banks' international bond issues have continued to decline in tandem with improvements in their credit ratings and with developments abroad.

## Exchange rate of the króna

### Króna appreciates again

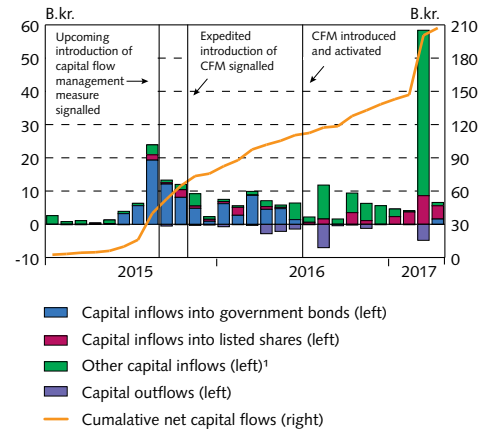
The króna has appreciated by about 7.1% in trade-weighted terms since the February *Monetary Bulletin*, and the index now measures about 154 points, which corresponds to a 22.6% appreciation year-on-year (Chart III-8). For the most part, the increase is attributable to strong growth in tourism and the marked improvement in Iceland's terms of trade and external position. It therefore reflects to a large extent the adjustment of the exchange rate to a higher equilibrium real exchange rate rather than to carry trade-related inflows.<sup>1</sup>

The exchange rate began to fall in early December, after a virtually uninterrupted rise beginning the previous summer. The fishermen's strike and the seasonal drop in foreign currency inflows from tourism probably contributed to the decline. Increased authorisation for foreign exchange transactions granted at the end of the year may well have been a factor also. The króna began to appreciate again in late January, however, and continued to strengthen after the strike ended in mid-February. It weakened slightly in early March and then fell further after the authorities announced the liberalisation of capital controls on 12 March. The króna began to appreciate again in early April and is now slightly stronger than it was prior to the announcement. Short-term exchange rate volatility increased at the end of 2016 and again after the capital controls were lifted in March, but it has eased somewhat since then.

1. For further discussion, see Box 3 in *Monetary Bulletin* 2016/2. Box II-4 in *Financial Stability* 2017/1 also contains a more detailed analysis of foreign currency flows in 2016. According to that analysis, inflows were due for the most part to the trade surplus.

Chart III-6

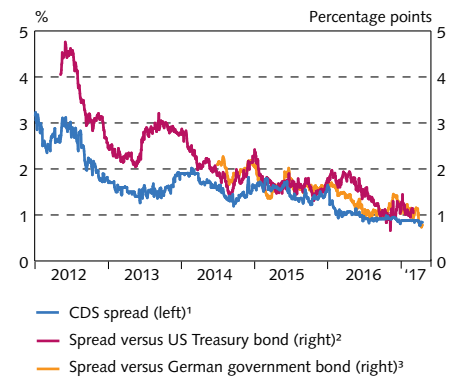
Capital flows due to registered new investments  
January 2015 - April 2017



1. 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  
Daily data 2 January 2012 - 12 May 2017

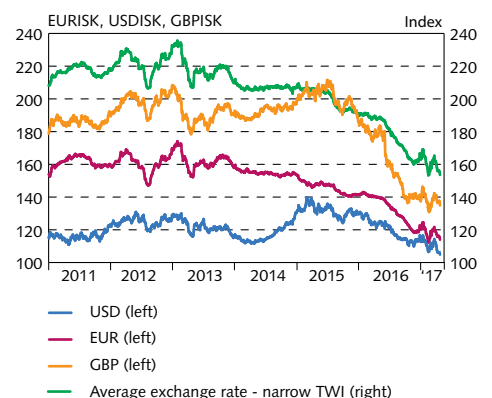


1. Five-year USD obligations. 2. USD bonds maturing in 2022.  
3. Eurobonds maturing in 2020.  
Source: Bloomberg.

Chart III-8

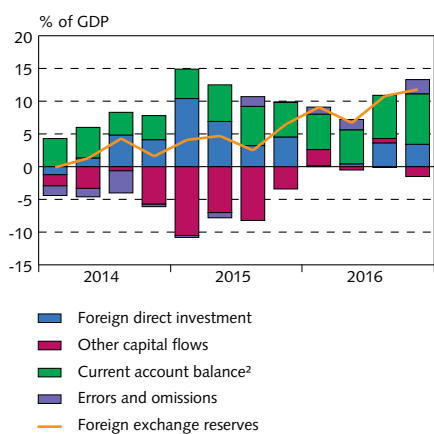
Exchange rate of foreign currencies against the króna

Daily data 3 January 2011 - 12 May 2017



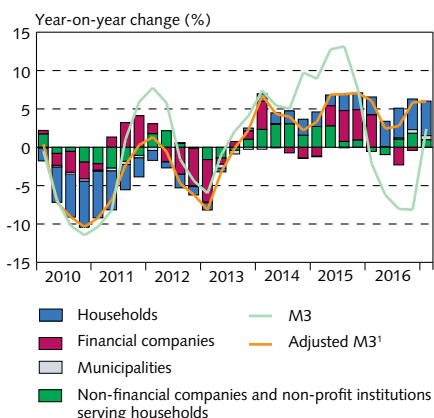
Source: Central Bank of Iceland.

Chart III-9  
Changes in reserves and contribution  
of components<sup>1</sup>  
Q1/2014 - Q4/2016



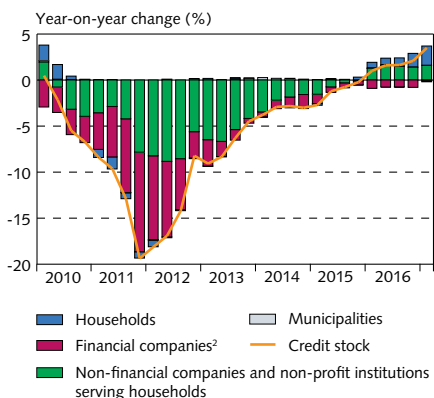
1. Changes in the foreign exchange reserves and net capital flows, by type, based on the balance of payments. Four-quarter moving average. 2. Current account balance without adjusting for the effects of failed financial institutions. Includes net capital contributions.  
Source: Central Bank of Iceland.

Chart III-10  
Money holdings  
Q1/2010 - Q1/2017



1. Adjusted for deposits of failed financial institutions.  
Source: Central Bank of Iceland.

Chart III-11  
Credit system lending to resident borrowers  
and sectoral contribution<sup>1</sup>  
Q1/2010 - Q1/2017



1. Credit stock adjusted for 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.  
Source: Central Bank of Iceland.

## Central Bank scales down FX purchases

The Central Bank's foreign exchange reserves amounted to just over 684 b.kr. at the end of April. They have decreased in the past few months due to the Bank's purchase of offshore krona assets and the Treasury's repurchase of bonds issued in foreign currency but are still well above the criteria formulated for reserve adequacy during the prelude to capital account liberalisation. The current account balance has been positive by around 6% of GDP, on average, during the post-crisis period, and the surplus has been used to pay down foreign debt and buy foreign assets, including shoring up the Bank's foreign exchange reserves (Chart III-9). The Bank has scaled down its foreign currency purchases in the recent term, in line with its stated opinion that it is no longer necessary to expand the reserves. The Bank will continue to intervene in the foreign exchange market, however, so as to mitigate exchange rate volatility when conditions warrant it. In the first four months of 2017, the Central Bank's net purchases totalled 64 b.kr., and in March the Bank bought krónur in the market for the first time since November 2014.

## Money holdings and lending

### Deposit institutions' excess reserves have held relatively stable ...

Banknotes and coin in circulation have continued to increase, in line with growing economic activity and increased use of cash as a result of the rise in tourist visits to Iceland. Deposit institutions' excess reserves – i.e., their current account deposits with the Central Bank in excess of reserve requirements – have remained relatively stable.

### ... and broad money growth is broadly unchanged from the previous quarter

Broad money (M3) grew by 6% year-on-year in Q1, after adjusting for deposits of failed financial institutions (Chart III-10). This is broadly the same growth rate as in the previous quarter and still below nominal GDP growth. As has been the case in the recent past, growth in M3 is due mainly to an increase in household deposits.

### Relatively modest overall growth in lending to domestic borrowers ...

Growth in credit system lending is still relatively moderate, and well below growth in investment or GDP, unlike the situation during the last upswing. Credit system lending to resident borrowers grew by 3.5% year-on-year in nominal terms in Q1, after adjusting for the Government's debt relief measures (Chart III-11). This is slightly stronger than last year's growth rate, after a continuous contraction beginning in Q2/2010. The increase is somewhat greater, or 4.7%, if the stock of foreign-denominated loans is adjusted for exchange rate movements. If loans taken from foreign credit institutions by resident borrowers are included, the exchange rate-adjusted credit stock has grown by 5%.

### ... but lending to households continues to rise

As before, the increase in lending during the year is due for the most part to an increase in loans to households and non-financial companies, particularly transport and transit companies and construction firms. Twelve-month growth in lending to households began to pick up towards the end of 2016 and has continued in line with rising real estate prices. The stock of credit system loans to households grew by 3.7% year-on-year in Q1, after adjusting for the Government's debt relief measures. As yet, however, the growth rate is modest and loan-to-value ratios on new loans are not high in historical or international context. Indexed loans still account for a large share of mortgage lending, at about 70% of loans granted in recent months. As in the recent past, mortgage lending growth is due primarily to increased lending by deposit institutions and pension funds, the latter of which have increased their market share in the past year. On the other hand, Housing Financing Fund (HFF) lending has continued to contract.

## Asset prices and financial conditions

### Steep rise in house prices in recent months

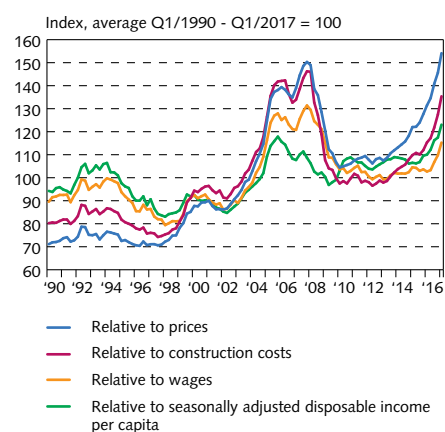
House prices in the greater Reykjavík area were up 21% year-on-year in March, and rent rose by over 10%, according to figures from Registers Iceland. Some of the increase is attributable to growth in demand supported by rising wages and job creation. Furthermore, construction of new residential property has been below its historical average as a share of GDP ever since the financial crisis struck in 2008, and this affects the current supply of housing. Flats sell quickly, and the number of properties listed for sale fell by 36% year-on-year in the first three months of 2017. Furthermore, an increase in short-term rentals to tourists has reduced the supply of small flats in the capital area and pushed prices upwards. The number of registered purchase agreements in greater Reykjavík was broadly unchanged year-on-year in Q1, and the average time-to-sale so far this year is about 1.4 months, down from just over 2 months a year ago and 19 months in 2010.

Real house prices rose by 11.4% in 2016 and thus far in 2017 have increased by almost 50% from the post-crisis trough early in 2010. This is comparable to the rise in the last cyclical expansion, and real prices are now slightly above the end-2007 peak (Chart III-12). The rise in house prices has also been rapid relative to construction costs but less pronounced relative to wages and disposable income. House prices have long risen in line with growth in wages and income, but in the recent past a growing mismatch has begun to develop between house prices and the economic fundamentals underlying their development (see Chapter I).

### Share prices are up again, and new investment is on the rise

Share prices fell suddenly just before the publication of the February *Monetary Bulletin*, following a profit warning from Icelandair. They recovered quickly, however, and the OMXI8 index is now 17.1% higher than in February (18.5% higher after adjusting for dividend payments). Telecom and tech companies' share prices have risen most this year, as

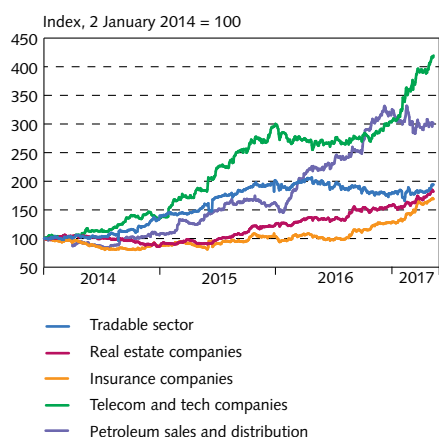
Chart III-12  
House prices relative to prices, construction costs, wages, and income<sup>1</sup>  
Q1/1990 - Q1/2017



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.



Chart III-13  
Share prices by sector<sup>1</sup>  
Daily data 2 January 2014 - 12 May 2017



1. Average change in share price of listed companies in selected sectors, adjusted for dividend payments and share capital reductions.  
Source: Nasdaq Iceland.

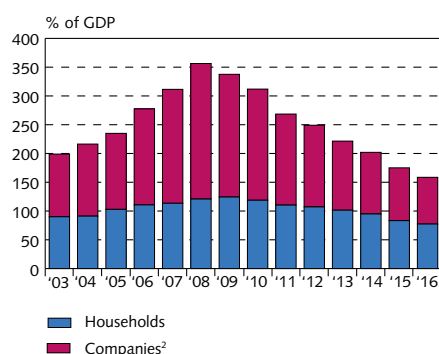
their 2016 operating results exceeded market expectations and their earnings are expected to increase this year (Chart III-13). Real estate and insurance companies' results were broadly as expected, while there were some unexpected results among other companies, with considerable changes in share prices afterwards. Operating conditions have been generally good, owing to the buoyant economy, although there is some uncertainty in the sectors most strongly affected by domestic cost increases and the appreciation of the króna. The newly published earnings reports for Q1/2017 were either in line with or just above market expectations.

Turnover in the Nasdaq Iceland main market totalled approximately 246 b.kr. over the first four months of the year, about 27% more than over the same period in 2016. In both February and March, monthly turnover exceeded 70 b.kr., the largest single-month totals since 2008. Foreign capital inflows into the domestic equity market have increased markedly in recent months (see Chart III-6 above), totalling 18.6 b.kr. in the first four months of 2017, as opposed to 3.9 b.kr. over the same period last year and 11.1 b.kr. for 2016 as a whole.

### Capital controls have largely been lifted

On 14 March 2017, the Bank's new Rules on Foreign Exchange took effect, removing most restrictions on foreign exchange transactions and cross-border movement of capital. Therefore, individuals and businesses are no longer subject to the restrictions that the Foreign Exchange Act places on, among other things, foreign exchange transactions, foreign investment, hedging, and lending activity. Furthermore, resident entities are no longer required to repatriate foreign currency. These are the items that have had the greatest impact on households and businesses since the capital controls were introduced in autumn 2008. In addition, the new Rules authorise pension funds, collective investment funds (UCITS), and other investors to invest abroad. Moreover, cross-border transactions with krónur are now authorised; i.e., foreign financial institutions are permitted to transfer krónur and financial instruments issued in domestic currency to and from Iceland. However, restrictions remain on derivatives trading for purposes other than hedging against risk, foreign exchange transactions undertaken between residents and non-residents without the intermediation of a financial institution, and, in certain instances, foreign-denominated lending by residents to non-residents. This is considered necessary to prevent carry trade on the basis of investments not subject to special reserve requirements. Amendments were also made to the Rules on Minimum Reserve Requirements so as to ensure their efficacy.

Chart III-14  
Household and non-financial corporate debt  
2003-2016<sup>1</sup>



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.

### Private sector debt ratio continues to fall ...

Corporate debt grew by 2% in nominal terms in Q4/2016 (4½% after adjusting for the effect of exchange rate movements on foreign-denominated debt), to 81% of GDP (Chart III-14). The debt ratio declined by 11 percentage points in 2016, mainly because of increased economic activity. The household debt ratio declined as well, measuring 77% of GDP at the end of 2016, although nominal household debt

rose by 1% in Q4. Private sector debt therefore equalled 159% of GDP at the end of 2016, the lowest ratio since end-2003.

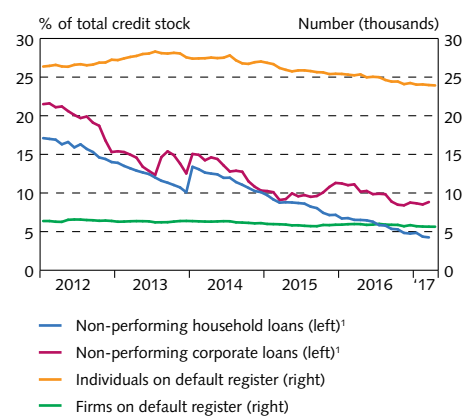
### ... and non-performing loan ratios are declining

The share of non-performing household debt to the three largest commercial banks and the HFF has fallen still further in the recent past, to 4.3% of total loans at the end of March, down from 6.5% at the same time a year earlier (Chart III-15). Furthermore, the number of individuals on the CreditInfo default register declined by 6% year-on-year in April. The share of non-performing corporate loans granted by credit institutions has declined as well, to 8.8% in March, as opposed to 11.1% in March 2016. The number of firms on the default register fell by 6% year-on-year in April. Furthermore, the number of corporate insolvencies declined year-on-year in Q1, after having been unusually high in 2016 because of delayed registration caused by the strike among capital area Commissioners' employees in 2015. The number of new registrations during the quarter was virtually unchanged between years (Chart III-16).

### Non-indexed mortgage lending rates have fallen in line with Central Bank rates

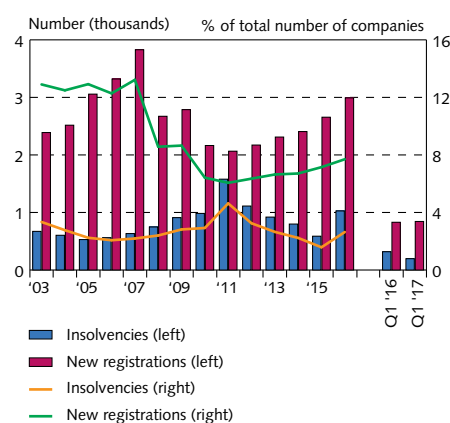
The commercial banks' non-indexed deposit and lending rates are virtually unchanged since the February *Monetary Bulletin*, as are pension funds' lending rates, but have declined since August, in line with Central Bank interest rates. Rates on comparable indexed loans have been broadly unchanged in the recent term, however. Interest rates on pension fund loans remain somewhat lower than rates on comparable loans from the commercial banks. More lenders have changed their lending fees to a fixed amount in compliance with amendments to legislation on mortgage lending to consumers, passed by Parliament last October.<sup>2</sup> As a result, lending fees have declined for a large group of borrowers, which should facilitate borrowing and enhance the likelihood of refinancing.

Chart III-15  
Credit system arrears  
January 2012 - April 2017



1. Non-performing loans owed to the three largest commercial banks and the Housing Financing Fund are defined as loans at least 90 days in arrears, those that are frozen, or those for which payment is deemed unlikely. The cross-default method is used; i.e., if one loan taken by a customer is in arrears by 90 days or more, all of that party's loans are considered non-performing. The January 2014 increase is due almost entirely to improvements to the HFF's loan portfolio reports and therefore does not reflect an actual increase. Parent companies, book value. Sources: CreditInfo, Financial Supervisory Authority, Central Bank of Iceland.

Chart III-16  
Corporate insolvencies and new company registrations 2003-2017



Source: Statistics Iceland.

2. The legislation provides for the equivalent of a ban on charging lending fees as a fixed percentage of the face value of the loan, as has been the practice in Iceland.