SEÐLABANKI ÍSLANDS

MONETARY POLICY COMMITTEE REPORT TO PARLIAMENT

2016 • 2

Monetary Policy Committee report to Parliament

24 January 2017

The Act on the Central Bank of Iceland stipulates that the Monetary Policy Committee (MPC) of the Central Bank of Iceland shall submit to Parliament (Althingi) a report on its activities twice a year and that the contents of the report shall be discussed in the Parliamentary committee of the Speaker's choosing.

The Act requires that the MPC meet at least eight times each year. Since the last Report was sent to Parliament, the Committee has held four regular meetings, most recently on 14 December 2016. On 23 December, the Committee held an extraordinary meeting concerning foreign exchange issues, where members agreed with the Governor's plans to step up foreign currency purchases if necessary in order to mitigate the appreciation of the króna just before major steps were taken towards capital account liberalisation at the beginning of 2017. The MPC also held a joint meeting with the Systemic Risk Committee on 8 December to discuss economic developments, the status of the financial system, flows in the foreign currency market and the interactions between monetary policy and financial stability. The following report discusses the work of the Committee between July and December 2016.

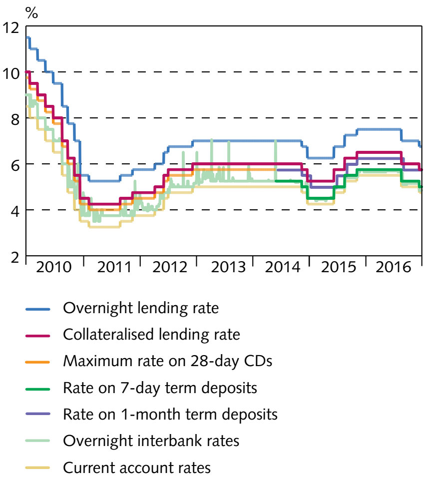
Table 1. Central Bank of Iceland interest rates 2016 (%)

Date	*Current accounts*	*Seven-day term deposits*	*Collateral-ised loans*	*Over-night loans*
14 Dec.	4.75	5.00	5.75	6.75
16 Nov.	5.00	5.25	6.00	7.00
5 October	5.00	5.25	6.00	7.00
24 August	5.00	5.25	6.00	7.00

Chart 1

Central Bank of Iceland interest rates and short-term market rates

Daily data 1 January 2010 - 30 December 2016



Source: Central Bank of Iceland.

Monetary policy formulation

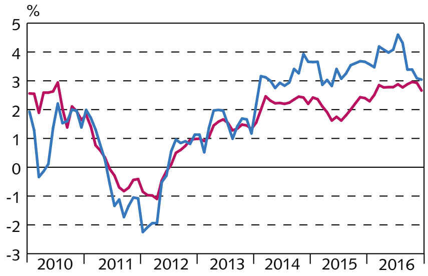
According to the Act on the Central Bank of Iceland, the Central Bank's principal objective is to promote price stability. The joint declaration issued by the Bank and the Icelandic Government on 27 March 2001 further describes this objective as an inflation target of 2½%. Furthermore, the Act stipulates that the Central Bank shall promote the implementation of the economic policy of the Government as long as it does not consider this policy inconsistent with the price stability objective. The Bank shall also promote financial stability. By law, the MPC takes decisions on the application of the Bank's monetary policy instruments; furthermore, the MPC's decisions shall be based on a thorough and careful assessment of developments and prospects for the economy, monetary policy, and financial stability.

In implementing monetary policy, the MPC bases its decisions in part on an analysis of current economic conditions and the outlook for the economy as presented in the Bank's *Monetary Bulletin*. The MPC's statements and minutes, enclosed with this report, contain the arguments for the Committee's decisions in the latter half of 2016.

Chart 2

Real Central Bank of Iceland interest rates[1]

January 2010 - December 2016



Real Central Bank of Iceland interest rate in terms of twelve-month inflation

Real Central Bank of Iceland interest rate in terms of various measures of inflation and inflation expectations[2]

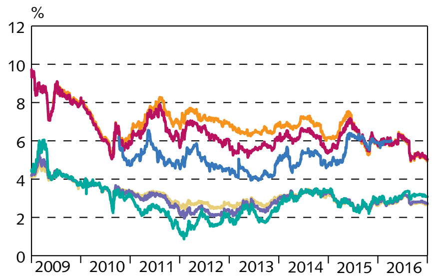
1. From 2010 to May 2014, the nominal policy rate was the average of the current account rate and the maximum rate on 28-day CDs. From May 2014, the policy rate has been the seven-day term deposit rate.
2. Until January 2012, according to twelve-month inflation, one-year business inflation expectations, one-year household inflation expectations, the one-year breakeven inflation rate, and the Central Bank forecast of twelve-month inflation four quarters ahead. From February 2012 onwards, according to the above criteria, plus one-year market inflation expectations based on a quarterly Central Bank survey.

Sources: Gallup, Statistics Iceland, Central Bank of Iceland.

Chart 3

Bond yields

Daily data 2 January 2009 - 30 December 2016



RIKB 16 103

RIKB 19 0226

RIKB 25 0612

HFF 150224

HFF 150434

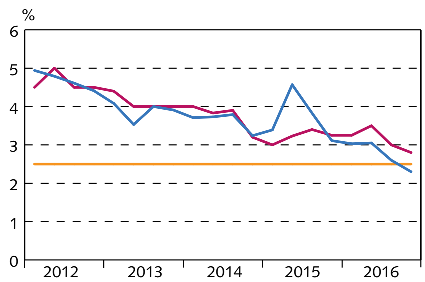
HFF 150644

Source: Central Bank of Iceland.

Chart 4

Long-term inflation expectations

Q1/2012 - Q4/2016



10-year breakeven inflation rate

Market agents' 10-year inflation expectations

Inflation target

Source: Central Bank of Iceland.

Developments from July to December 2016

The Central Bank's interest rates have been lowered by 0.75 percentage points since the last MPC report was sent to Parliament in July. At its August meeting, the Committee decided to lower rates by 0.5 percentage points, and in December it lowered them by an additional 0.25 percentage points. At the end of 2016, the Bank's key interest rate – that is, the seven-day term deposit rate – was 5%, down from 5.75% at the end of June.[1]

The Bank's real rate, in terms of the average of various measures of inflation and inflation expectations, remained in the 2½-3% range in 2016, and it was 2.7% at the end of the year, about the same as when the last report was sent to Parliament. It was somewhat higher and more volatile in terms of past inflation, but the difference has narrowed as observed inflation has moved closer to the inflation target.

Bond market yields have developed in line with the Bank's interest rate reductions in the latter half of the year. Yields on nominal Treasury bonds fell by approximately 0.5 percentage points after the Bank's rate cut in August and by 0.1-0.2 percentage points in the wake of the December rate cut. Yields on the bonds lay in the 5-5.3% range at the end of December, or as much as 1.2 percentage points lower than at the end of June. Yields on indexed Treasury and Housing Financing Fund bonds lay in the 2.7-3.1% range at the end of December, or as much as 0.3 percentage points lower than at the end of June.

The recent decline in bond yields probably stems from different causes than the decline in the second half of 2015, which was due mainly to increased inflows of foreign capital into the domestic bond market. Such inflows have all but halted, however, since the Central Bank activated its new capital flow management measure in June 2016.[2] Short- and long-term inflation expectations have also fallen in the recent term, and expectations about developments in the Central Bank's interest rates have changed. Inflation expectations are in line with the target by almost all measures, in a clear indication that monetary policy has been successful in anchoring expectations more firmly than before.

The exchange rate of the króna has risen considerably since the MPC sent its last report to Parliament. Since the end of June 2016, it has risen by 13.7% in trade-weighted terms, 14.8% against the euro, 18.8% against the pound sterling, and 8.7% against the US dollar. The increase largely reflects capital inflows stemming from a large trade surplus, which is due to improved terms of trade and growth in exports – particularly in the tourism industry. In the recent past, however, the Central Bank's foreign exchange market activity has leaned against the appreciation. In the second half of 2016, the Bank bought nearly 200 b.kr. in foreign currency from market makers in the foreign exchange market, a considerably larger amount than over the

1. The key rate is the interest rate that is the most important determinant of short-term market rates and therefore is the best measure of the monetary stance. At present, this is the seven-day term deposit rate. Other Central Bank interest rates have lowered correspondingly, as can be seen in Table 1 and Chart 1.
2. Further discussion on the new capital flow management measure can be found in Box 1 in *Monetary Bulletin* 2016/4 enclosed in this report.

same period in 2015. The main purpose of the Central Bank's foreign currency purchases is to counteract excessive exchange rate volatility, but it was also necessary to build up the foreign exchange reserves and prevent over-appreciation of the króna during the prelude to large steps towards the liberalisation of capital controls. A large step was taken towards full liberalisation on 21 October, with the passage of legislation amending the Foreign Exchange Act, no. 87/1992. The amending Act significantly expanded individuals' and firms' authorisations for foreign exchange transactions and cross-border movement of capital. However, since August, the Central Bank had bought a smaller share of foreign currency inflows than it had done earlier in the year. The MPC decided that it was appropriate to continue on this path after the first step had been taken towards liberalisation of capital controls on individuals and firms and then to review the situation after the second step towards liberalisation of capital controls on individuals and firms had been taken, on 1 January 2017.

Inflation has risen marginally since the MPC submitted its last report to Parliament. Twelve-month inflation in terms of the CPI measured 1.9% in December, up from 1.6% in June 2016. Inflation has been at or below the Central Bank's inflation target for nearly three consecutive years.[3] Underlying inflation as measured by core index 3 (which excludes volatile food items, petrol, public services, real mortgage interest expense, and the effects of indirect taxes) measured 2.1% in December, as it had in June. House prices were the main driver of inflation in the latter half of 2016, and the CPI excluding housing had fallen by 0.8% year-on-year in December. Favourable external conditions and the appreciation of the króna have offset the impact of wage costs and domestic demand on inflation.

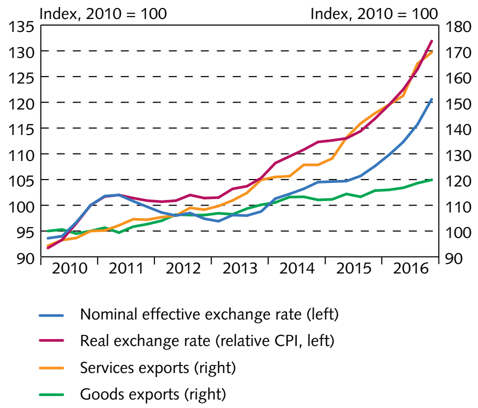
According to the Bank's baseline forecast, published in *Monetary Bulletin* on 16 November 2016, inflation will remain in the 2-2½% range next year and in the 2½-3% range for the remainder of the forecast horizon, which extends through mid-2019. This is due to the offsetting effects of a tight monetary stance, which anchors inflation expectations and supports the exchange rate, versus domestic inflationary pressures, which can be seen most clearly in steep pay increases and rising house prices.

Although monetary policy has been quite successful in containing inflation, the inflation outlook is uncertain, as it was in June. The Bank's forecast assumes that wage increases and domestic demand growth will lose pace in the coming term, but the situation could easily change. In its interest rate decisions, the MPC has taken into consideration the unrest in the labour market and the uncertainty about the fiscal stance, which has eased somewhat in the past two years.

Chart 5

Exchange rate of the króna and exports[1]

Q1/2010 - Q4/2016

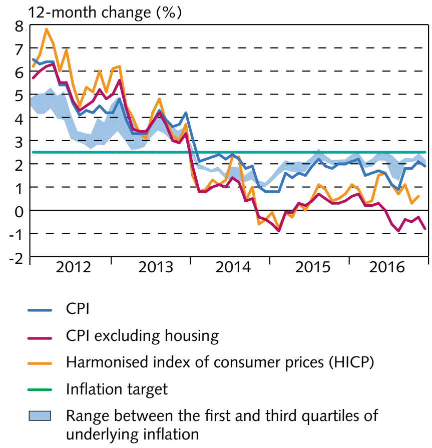


1. Four-quarter moving average. Exports for Q4/2016 based on the baseline forecast published in *Monetary Bulletin* 2016/4.
Source: Statistics Iceland, Central Bank of Iceland.

Chart 6

Headline and underlying inflation[1]

January 2012 - December 2016



1. Underlying inflation; core indices that exclude the effects of volatile food items, petrol, public services and owner-equivalent rent and statistical measures such as the weighted median, the trimmed mean and a dynamic factor model.
Sources: Statistics Iceland, Central Bank of Iceland.

3. According to Statistics Iceland's CPI measurement as published on 26 August 2016, twelve-month inflation was 0.9% in August 2016 and had therefore fallen below 1%, the lower deviation threshold of the inflation target. With reference to the joint declaration of the Government and the Central Bank of Iceland, dated 27 March 2001, the Bank sent the Government a special report on 9 September, explaining the reasons for the deviation. It was revealed later that there was an error in Statistics Iceland's inflation measurements for the period from March through August 2016. According to the corrected figures, twelve-month CPI inflation was 1.2% in August; therefore, inflation did not fall below the 1% threshold in August and no report had been necessary.

Tight monetary policy has anchored inflation expectations, encouraged saving, and contained credit growth. The MPC decided in August to lower the Bank's nominal interest rates because it appeared that monetary policy had made it possible to keep inflation at target over the medium term with lower interest rates than the Committee had previously considered possible. At its December meeting, the MPC also considered that there was scope to lower nominal interest rates, as inflation expectations appeared more firmly anchored to target than before and the monetary stance had tightened to an extent because of the appreciation of the króna. Nevertheless, the Committee was of the view that strong demand growth and the aforementioned uncertainties called for caution in interest rate setting. The monetary stance in the coming term will therefore be determined by economic developments and actions taken in other policy spheres.

Accompanying documents

The following documents are enclosed with this report:

1. Monetary Policy Committee statements from July to December 2016.
2. Minutes of Monetary Policy Committee meetings from July to December 2016.
3. Report to the Government on inflation below deviation limits, 9 September 2016
4. Letter to the Minister of Finance explaining that because of the error in Statistics Iceland's inflation measurements, the report to the Government had not been necessary.
5. Governor's speech at the Iceland Chamber of Commerce's monetary policy meeting.
6. The Central Bank's Chief Economist's speech, delivered to the Icelandic Federation of Trade.
7. "Why has the króna appreciated?" Article by the Central Bank's Chief Economist, published in *Kjarninn* on 15 December 2016.
8. "Economic well-being and the exchange rate of the króna". Article by the Governor, published in *Fréttablaðið* on 30 December 2016.
9. "Capital flows and the Central Banks's new capital flow management measure". Box 1 in the *Monetary Bulletin* 2016/4.
10. Joint declaration by the Government and the Central Bank on inflation targeting, March 2001

On behalf of the Central Bank of Iceland Monetary Policy Committee,

Már Guðmundsson

Governor of the Central Bank of Iceland
and Chair of the Monetary Policy Committee

Accompanying documents

No. 22/2016
24 August 2016

Statement of the Monetary Policy Committee
24 August 2016

The Monetary Policy Committee (MPC) of the Central Bank of Iceland has decided to lower the Bank's interest rates by 0.5 percentage points. The Bank's key interest rate – the rate on seven-day term deposits – will therefore be 5.25%.

According to the Central Bank's updated forecast as published in the most recent *Monetary Bulletin*, the outlook is for somewhat stronger output growth this year than was forecast in May, or 4.9%, followed by robust growth in 2017. In spite of large pay increases and a wider positive output gap, inflation has remained below target for two-and-a-half years. In July it measured 1.1%, the lowest inflation rate since the beginning of 2015. Improved terms of trade, low global inflation, tight monetary policy, and the appreciation of the króna have offset the effects of wage increases on the price level. The króna has appreciated markedly in the recent term, in spite of substantial foreign currency purchases by the Central Bank.

The inflation outlook has improved since the Bank's last forecast. If the exchange rate remains unchanged, the outlook is for inflation to remain below target until early 2017. According to the forecast, it will edge upwards when import prices stop declining and the effects of the currency appreciation subside. Inflation will rise more slowly than previously forecast, however, and will not be as high as was previously projected. If the exchange rate continues to rise, and other things being equal, inflation will be lower than is provided for in the baseline forecast.

Tight monetary policy has contained demand for credit and led to increased saving, thereby supporting a larger current account surplus and a stronger króna. Alongside favourable external conditions, monetary policy has therefore led to lower inflation and recently to a better alignment of inflation expectations to the target. For the same reasons, real interest rates have risen somewhat more in the recent term than was provided for in the Bank's previous forecasts based on an unchanged exchange rate.

There are indications that monetary policy has been more successful than was expected earlier this year. As a result, it appears that it will be possible to keep inflation at target over the medium term with a lower interest rate than was previously considered necessary. The likelihood of increased macroeconomic imbalances and the uncertainty associated with capital account liberalisation argue for caution in interest rate setting, however. Whether interest rates will be lowered further or need to be raised again will depend on economic developments and on the success of the capital account liberalisation process.

No. 24/2016
5 October 2016

Statement of the Monetary Policy Committee
5 October 2016

The Monetary Policy Committee (MPC) of the Central Bank of Iceland has decided to keep the Bank's interest rates unchanged. The Bank's key interest rate – the rate on seven-day term deposits – will therefore remain 5.25%.

As before, GDP growth is expected to be robust both this year and in 2017. The most recent indicators suggest even stronger growth than previously expected. In spite of large pay increases and rapid demand growth, inflation has remained below target for two-and-a-half years. Improved terms of trade, low global inflation, tight monetary policy, and the appreciation of the króna in spite of large foreign currency purchases by the Central Bank have offset the effects of wage increases on inflation.

In September, inflation rose significantly between months, to 1.8%. In part, this reflects the correction by Statistics Iceland of an error in its inflation measurements for the period from March through August. The Central Bank's overprediction of inflation earlier in the year was therefore less than previously thought. However, the inflation outlook is unlikely to have changed from the forecast published by the Bank in August, as the króna has appreciated still further and inflation expectations remain close to target.

The likelihood of increased macroeconomic imbalances and the uncertainty associated with capital account liberalisation argue for caution in interest rate setting. The monetary stance in the coming term will therefore depend on economic developments and the success of the capital account liberalisation process.

No. 28/2016
16 November 2016

Statement of the Monetary Policy Committee
16 November 2016

The Monetary Policy Committee (MPC) of the Central Bank of Iceland has decided to keep the Bank's interest rates unchanged. The Bank's key interest rate – the rate on seven-day term deposits – will therefore remain 5.25%.

According to the baseline forecast published in the November issue of *Monetary Bulletin*, GDP growth is expected to be robust in 2016 and 2017 and to exceed the Bank's August forecast. To a greater degree than before, GDP growth is supported by domestic demand, which grew by nearly 10% in H1/2016. Job creation remains strong, unemployment is declining, and there are clearer signs that rapid demand growth is straining domestic resources, although this is offset somewhat by increased importation of foreign labour.

Inflation measured 1.8% in October and has remained below target for nearly three years despite large pay increases and rapid demand growth. Improved terms of trade, low global inflation, and the appreciation of the króna have offset the effects of wage increases on inflation. A tight monetary stance has also played an important role in containing inflation and anchoring inflation expectations. It has done this by slowing demand growth, directing some of the steep rise in income and wealth towards saving, and containing credit growth. In this way, monetary policy has supported the exchange rate of the króna, which has lowered import prices even further and shifted some of the demand towards imports.

According to the Bank's new inflation forecast, the outlook is for inflation to be below target until mid-2017 and then hover in the 2½-3% range for the remainder of the forecast horizon. This is a significant change from the Bank's previous forecast, owing mainly to the fact that the baseline forecast is now based on an endogenous exchange rate path and not on the technical assumption that the exchange rate will be constant throughout the forecast period. The inflation outlook has also improved, however, particularly in the short run. The change in the Bank's inflation forecast does not provide as much scope for monetary policy response as might be expected, as the MPC had already incorporated a strong probability of further appreciation of the currency into its recent policy decisions.

In recent months, the Central Bank has purchased a smaller share of foreign currency inflows than it did earlier in the year. The MPC is of the view that, other things being equal, it is appropriate to continue in this vein.

The MPC's decision to keep interest rates unchanged is taken upon consideration of the Bank's current forecast and the Committee's risk assessment. This includes, in particular, the uncertainty about the fiscal stance, which has eased in the past two years and remains uncertain because it is unclear at present what the next Government's economic policy will be. In addition, there is unrest in the labour market, not least in the wake of the recent ruling providing for pay increases for elected officials. Moreover, there is continued uncertainty about the impact of capital account liberalisation, although the process has been smooth thus far. Added to this is uncertainty about the global economic outlook.

Although inflation expectations appear to be more firmly anchored to target and the monetary stance has tightened to some extent through the appreciation of the króna, strong demand growth and the aforementioned uncertainties call for caution in interest rate setting. The monetary stance in the coming term will depend on economic developments and actions taken in other policy spheres.

No. 31/2016
14 December 2016

Statement of the Monetary Policy Committee
14 December 2016

The Monetary Policy Committee (MPC) of the Central Bank of Iceland has decided to lower the Bank's interest rates by 0.25 percentage points. The Bank's key interest rate – the rate on seven-day term deposits – will therefore be 5%.

The national accounts for the first nine months of the year show stronger GDP growth than the Central Bank forecast in November. Growth in domestic demand was broadly in line with that forecast, but its composition was different: business investment growth was stronger than projected, while private consumption growth was weaker. Export growth was also stronger than had been forecast, mainly due to robust services exports. The current account balance showed a record surplus in the third quarter of the year.

Inflation measured 2.1% in November and has remained below target for nearly three years despite large pay increases and rapid demand growth. This is due largely to favourable external conditions and the appreciation of the króna but also to a tight monetary stance, which has anchored inflation expectations.

The MPC's decision to lower interest rates reflects the Central Bank's last forecast and more recent information. The exchange rate has risen by 1½% since the Committee's last meeting and is already above the projected average for 2017. In addition, the composition of GDP growth is more favourable than was forecast in November, in that exports and business investment weigh more heavily than previously projected. Both of these factors affect the Committee's risk assessment. As before, there is considerable uncertainty about the fiscal stance, which has eased in the past two years and still remains uncertain because it is unclear at present what the next Government's economic policy will be. As in November, there is unrest in the labour market and uncertainty about the impact of upcoming steps towards capital account liberalisation.

Inflation expectations appear more firmly anchored to the target than before, and the monetary stance has tightened to some extent, through the appreciation of the króna. This gives the MPC some scope to lower nominal interest rates now. Nevertheless, strong demand growth and the aforementioned uncertainties call for caution in interest rate setting. The monetary stance in the coming term will be determined by economic developments and actions taken in other policy spheres.

The Monetary Policy Committee of the Central Bank of Iceland

Minutes of the Monetary Policy Committee meeting, August 2016

Published 7 September 2016

The Act on the Central Bank of Iceland stipulates that it is the role of the Monetary Policy Committee (MPC) to set Central Bank interest rates and apply other monetary policy instruments. Furthermore, the Act states that "[m]inutes of meetings of the Monetary Policy Committee shall be made public, and an account given of the Committee's decisions and the premises upon which they are based." In accordance with the Act, the MPC has decided to publish the minutes of its meetings two weeks after each interest rate decision. The votes of individual Committee members will be made public in the Bank's *Annual Report*.

The following are the minutes of the MPC meeting held on 22 and 23 August 2016, during which the Committee discussed economic and financial market developments, the interest rate decision of 24 August, and the communication of that decision.

I Economic and monetary developments

Before turning to the interest rate decision, members discussed the domestic financial markets, financial stability, the outlook for the global economy and Iceland's international trade, the domestic economy, and inflation, with emphasis on information that has emerged since the 1 June interest rate decision, as published in the updated forecast in *Monetary Bulletin* 2016/3 on 24 August.

Financial markets

Since the June meeting, the króna had appreciated by 6.8% in trade-weighted terms, by 18.9% against the pound sterling, by 7.1% against the US dollar, and by 5.4% against the euro. The Central Bank's net foreign currency purchases in the domestic foreign exchange market totalled approximately 771 million euros (104 b.kr.) between meetings, or roughly 55% of total market turnover. The Bank's net purchases year-to-date totalled 1,810 million euros (251 b.kr.)

Interbank market rates had developed in line with the Bank's key rate, but no transactions had taken place in the market between meetings.

In terms of the Central Bank's real interest rate, the monetary stance had tightened since the June meeting. In terms of the average of various measures of inflation and inflation expectations, the Bank's real rate had risen by 0.4 percentage points between meetings, to 3.2%, but in terms of past twelve-month inflation it had risen by 0.6 percentage points, to 4.6%.

Inflows of foreign capital to the domestic bond market had virtually halted after the Bank adopted its new temporary capital flow management measure in June. Yields on nominal Treasury bonds had remained more or less unchanged between meetings, however, after having risen somewhat just after the capital flow management measure was introduced. The yield on indexed Treasury and Housing Financing Fund (HFF) bonds had risen by nearly ½ a percentage point, however, in line with the rise in the Bank's real rate, and the liquidity premium on indexed bonds has probably risen as well, with the decline in the number of market makers.

The large commercial banks' indexed and non-indexed deposit and lending rates were unchanged since the June meeting, and the pension funds' average mortgage lending rate had changed very little.

Risk premia on Treasury foreign obligations had declined between meetings. The CDS spread on five-year Treasury obligations was just under 0.9% at the time of the August meeting, the lowest since the beginning of 2008. The risk premium as measured in terms of the interest rate spread between the Treasury's eurobond issues and comparable Government bonds issued by Germany, on the one hand, and the United States, on the other, had also declined by 0.3 percentage points, to about 1% and 1.4%, respectively.

Financial institutions' analysts had all expected the Bank's nominal interest rates to remain unchanged in August, with reference to the MPC's previous statements on the possible need for further rate hikes, but on the other hand, they were of the view that the inflation outlook had improved and the Bank's real rate had risen. They expected a change in tone in the MPC statement and made particular reference to the appreciation of the króna, which would probably reduce inflationary pressures.

In Q2/2016, M3 grew by about 1.8% year-on-year after adjusting for the deposits held by the financial institutions in winding-up proceedings, which is less growth than in the past year. The total stock of credit system lending to resident borrowers grew over the same period by 0.6%, and by just under 1.6% adjusted for the Government's debt relief measures. As before, this growth seems to be driven largely by increased corporate lending, although household lending grew marginally year-on-year as well, when adjusted for the aforementioned debt relief measures.

The Nasdaq OMXI8 index had fallen by 6.8% between meetings and by 9.3% since the beginning of the year. Turnover in the NASDAQ Iceland main market totalled just over 320 b.kr. over the first seven months of the year, about 70% more than over the same period in 2015.

Global economy and external trade

The global GDP growth outlook for 2016 and 2017 had deteriorated slightly, according to the International Monetary Fund's (IMF) July forecast. Global output growth was forecast at 3.1% in 2016, about 0.1 percentage point less than in the Fund's April forecast. The poorer outlook was due mainly to weaker GDP growth in the US, Japan, and the UK. The forecast for 2017 was 3.4%, 0.1 percentage point less than the fund's April forecast, owing primarily to weaker output growth in the UK. If the global GDP growth forecast for 2016 materialises, the rate of growth will be similar to that in 2015, and the weakest since 2009. The forecast for growth in world trade in 2016 was also revised downwards. Inflation in developed countries was projected at 0.7% for this year, the same as in April, but was forecast to rise to 1.6% in 2017. The 2016-2017 GDP growth forecast for Iceland's main trading partners was similar to the

April forecast, or 1.7% and 1.8%, respectively. The uncertainty in the GDP growth forecast is still considered tilted to the downside, particularly because of the uncertainty that has developed around the UK's decision to leave the EU.

According to preliminary figures from Statistics Iceland, Iceland's goods trade generated a 9.6 b.kr. deficit in July and a 72 b.kr. deficit in the first seven months of the year. Export values contracted by 10.4% year-on-year at constant exchange rates, while import values rose 7.6%. The contraction in exports is due primarily to a 16.5% contraction in industrial exports and a nearly 7% contraction in marine product exports. The rise in imports stems primarily from a year-on-year increase of 40% in transport equipment imports and 23% in "other" consumer goods imports.

The listed global market price of aluminium had risen by 6.8% since the June meeting, and by 6.6% year-on-year. Foreign currency prices of marine products rose by 1% between months in June and have risen by 2.6% year-on-year.

In terms of relative consumer prices, the real exchange rate rose 2.7% month-on-month in July, to 88.1 points. It was up 10.3% year-on-year in the first seven months of 2016, due mostly to the 9.4% nominal appreciation of the króna, although inflation in Iceland was 0.8 percentage points above the trading partner average.

The domestic real economy and inflation

The wage index rose by 2.8% between quarters in Q2, and by 13% year-on-year, while real wages rose 11.2% between years.

According to Statistics Iceland's labour force survey (LFS) for Q2, the number of jobs grew by 3% year-on-year, as was assumed in the Bank's May forecast, but the average work week continued to shorten instead of remaining unchanged, as was projected in May. Growth in total hours worked was therefore somewhat weaker than forecast, at 2.5% instead of 3%.

Q2 unemployment was broadly in line with the May forecast, measuring 3.6%, or 2.7% seasonally adjusted. The seasonally adjusted rate is at its lowest since Q2/2008.

Key indicators of private consumption growth in Q2 suggest a continuation of the pattern in the first quarter, when growth measured just over 7% year-on-year. Payment card turnover increased 12.7% year-on-year during the quarter and new motor vehicle registrations by 36.4%. Furthermore, growth in groceries turnover picked up during the quarter. Most indicators of private consumption showed marked growth in July, apart from a slight easing of payment card turnover growth.

Statistics Iceland's nationwide house price index, published at the end of July, rose 0.6% month-on-month when adjusted for seasonality and by 8.1% year-on-year. The capital area house price index, calculated by Registers Iceland, rose by 2.1% month-on-month in July when adjusted for seasonality, and by 12.4% year-on-year. During the first seven months of the year, the number of purchase agreements rose year-on-year by 7% nationwide and by 5% in the greater Reykjavík area. The average time-to-sale for capital area housing was two months over that same period, nearly one-and-a-half months shorter than during the same period in 2015.

The Gallup Consumer Confidence Index fell somewhat between June and July, after having risen significantly in the recent term. It measured just under 125 points, an increase of 25.6 points between years. In Q2/2016, the index was 42.6 points higher, on average, than in the same period in 2015.

The CPI fell 0.3% month-on-month in July, after rising by 0.2% in June. Twelve-month inflation measured 1.1% and had declined since the MPC's June meeting. However, excluding the housing component, it had fallen by 0.6% since July 2015. Most measures of underlying inflation indicate that it lay in the 1½-2½% range in July and had fallen by ½ a percentage point month-on-month.

The disinflation in July was affected, among other things, by stronger summer sale effects than in recent years and a decline in petrol prices. Pulling in the other direction were increases in house prices, airfares, and food prices. Private services prices had risen by only 0.5% in the past twelve months, as opposed to 2.1% in May.

According to the Central Bank's survey of market agents' inflation expectations, conducted just before the publication of *Monetary Bulletin* 2016/3, participants expect inflation to measure 2.3% in one year. This is 0.7 percentage points less than in the previous survey, taken in May 2016. Their expectations two years ahead also declined, measuring 3%. Furthermore, they expect inflation to average 3% over the next ten years, or 0.5 percentage points less than in the May survey. The decline in long-term inflation expectations can also be seen in the breakeven inflation rate in the bond market, as the ten-year rate measured more than 3% earlier this year but has been 2.8% so far in Q3.

According to the forecast published in *Monetary Bulletin* on 24 August 2016, the inflation outlook has improved since the Bank's May forecast. Inflation has declined in recent months in spite of a growing positive output gap. The exchange rate of the króna has risen, and deflation on imported goods and services has offset domestic inflationary pressures. Furthermore, inflation expectations have continued to ease downwards. The inflation outlook has therefore improved since the Bank's May forecast, mainly because of the marked appreciation of the króna and the prospect of somewhat stronger productivity growth in 2016 than was assumed in that forecast. As before, inflation is forecast to rise when the effects of the appreciation begin to taper off, provided that the króna does not appreciate further. Based on this assumption, it is assumed that inflation will peak at about 3¾% in the first half of 2018 and then begin to ease back towards the target in response to a tight monetary stance.

The global economic outlook had changed and uncertainty had increased since the publication of the May issue of *Monetary Bulletin*. The main factor was Britain's decision to leave the European Union. The financial markets responded strongly to the decision, but those effects had reversed somewhat by the time the forecast was prepared. The GDP growth outlook for Iceland's main trading partners has deteriorated since May and is subject to stronger headwinds than before.

For 2016, the outlook is for a somewhat smaller improvement in terms of trade than was forecast in May, whereas in the next two years terms of trade are forecast to improve more than was anticipated in May. Export growth is projected at 8.6% in 2016, a percentage point more than was forecast in May, while the forecast for the next two years is broadly in line with the 3-4% projected in May.

The assumptions in the forecast about wage developments are similar to those in May. The confidence interval of the forecast takes account of the fact that, given the tension that appears to be developing in the labour market, wage drift could be underestimated in the forecast, particularly later in the forecast horizon. According to the forecast, unit labour costs are projected to rise somewhat less this year than was previously estimated, as the outlook is for stronger productivity growth. The outlook for the forecast horizon overall is broadly unchanged, however.

Domestic demand grew by just over 8% in Q1/2016, and GDP growth measured 4.2%. GDP growth for the year as a whole is estimated at 4.9%, some 0.4 percentage points more than was forecast in May. The deviation is due mainly to indicators of stronger growth in private consumption and business investment, while external trade pulls in the opposite direction, owing to a surge in imports. As before, GDP growth is driven by rapid growth in disposable income and improvements in households' and businesses' balance sheets. This is compounded by fiscal easing, whereas on the other hand, monetary policy has slowed domestic demand growth and directed a portion of increased income towards domestic saving. GDP growth is still projected at over 4% in 2017. If the forecast materialises, it will be the third consecutive year with a GDP growth rate of 4% or more. As in the Bank's previous forecasts, it is assumed that GDP growth will gradually ease towards its long-term trend level, measuring about 2½% in 2018.

According to the forecast, the slack in the economy disappeared in 2015, and a positive output gap has developed in the recent term, concurrent with strong GDP growth. As in May, the output gap is expected to continue growing, peaking early next year before narrowing again.

II The interest rate decision

The Governor reported to the Committee on the experience of the new monetary policy instrument intended to temper and affect the composition of capital inflows to the country. He also updated the Committee on matters relating to the next steps in the general liberalisation of capital controls. The Bank's analysis of potential outflows upon liberalisation was discussed as well.

Committee members discussed whether developments since the last meeting had changed its assessment of whether the monetary stance was appropriate and whether the outlook had changed. At the June meeting, the MPC had decided to hold interest rates unchanged, in view of an improved near-term outlook, but considered it likely that the monetary stance would need to be tightened in the coming term.

In this context, the Committee took account of the Bank's new macroeconomic forecast, published in *Monetary Bulletin* on 24 August, according to which inflation will be somewhat lower in the coming term than had been forecast in May, but GDP growth will be stronger in 2016 and robust in 2017.

Members discussed the fact that in spite of large pay increases and a widening positive output gap, inflation had remained below target for two-and-a-half years. In July, inflation had measured 1.1%, the lowest rate since the beginning of 2015.

Committee members agreed that the inflation outlook had improved markedly since the Bank's May forecast and that the outlook was for inflation not to rise as much or as rapidly as had been projected in May. They also considered that if the exchange rate should continue to rise, inflation could turn out lower than was provided for in the baseline forecast, other things being equal.

The Committee discussed recent exchange rate developments, as the króna had appreciated by 6.8% since the June meeting. Although the appreciation could be attributed in part to global factors, members were of the view that it probably reflected to a large extent the strong foreign currency inflows stemming from the external trade surplus. Inflows related to new investment in the bond market had virtually halted, however, with the implementation of the new monetary policy instrument. Committee members were of the view that the equilibrium exchange rate had probably risen, although it was uncertain how much. To the extent that the adjustment of the real exchange rate to a higher equilibrium rate was inevitable following the commencement of general liberalisation of capital controls, it would be preferable that this adjustment take place through nominal appreciation rather than elevated inflation.

The Committee discussed the foreign exchange market intervention policy that has been pursued in recent weeks – a policy based on keeping the reserves close to the balance required in advance of the anticipated steps towards liberalisation. Members agreed that a temporary overshooting of the exchange rate during the prelude to liberalisation was not desirable, but neither did they consider it desirable to disconnect price formation of the króna in the market entirely. It was pointed out that, under normal circumstances, the aim of the Central Bank's foreign currency interventions was to counteract excessive exchange rate volatility and, under certain circumstances, excessive currency misalignments. The Committee decided not to make any changes to the intervention policy at this time but rather to discuss it at its next meeting, or at an extraordinary meeting if necessary, and to take account of the steps towards liberalisation that would presumably have been taken by that time.

The MPC discussed developments in terms of trade; and noted the fact that the improvement in terms of trade, the appreciation of the króna, and low global inflation had offset the effects of rising unit labour costs on the price level – thus contributing to lower inflation than would otherwise have resulted. The Committee also discussed the role of monetary policy. Considering the fact that inflation had been below target for nearly three years in spite of large wage increases, members were of the view that the role of monetary policy in containing inflation had been instrumental. Members agreed that this was too long a time for it to be explainable without reference to monetary policy. They were of the view that, over such a long period, an easier monetary stance would likely have resulted in higher inflation. The domestic disinflation and the appreciation of the króna supported the opinion that monetary policy was a factor. It was pointed out as well that a recent analysis of the factors affecting inflation developments over the past two years indicated that monetary policy also played a role in the disinflation process.

Committee members considered it likely that the monetary stance and credible MPC statements to the effect that the objective of keeping inflation at target would not be compromised had caused firms to hesitate before passing wage cost increases through to prices. They also pointed out that the nominal appreciation of the króna was not independent of monetary policy, as a tight monetary stance had, among other things, contributed to reduced demand for credit and increased saving, thereby supporting a current account surplus and a higher exchange rate.

In the Committee's opinion, the most important indication of increased credibility of monetary policy that had emerged since the last meeting was that short- and long-term inflation expectations had declined still further and were now, by most measures, at or near the target. Committee members considered it unlikely that favourable external conditions explained the decline in long-term inflation expectations to target. Large pay increases had at first resulted in a rise in inflation expectations, but recent developments had been more favourable than MPC members had dared hope.

Members agreed that monetary policy and favourable external conditions had led to lower inflation and contributed both to the recent decline in inflation and to the fact that inflation expectations were currently close to target. This development implied that, in the recent past, real interest rates had risen somewhat more than was provided for in the Bank's previous forecast. It was argued by some members that, due to the lack of monetary policy credibility, it would not have been prudent to respond sooner. In this context, it was pointed out that long-term inflation expectations had been above target until very recently. It was also noted that it would have been imprudent to assume in advance that the recent favourable economic developments, manifested in a significant improvement in terms of trade, foreign currency inflows, and the appreciation of the króna, would materialise, as these developments had exceeded previous forecasts.

Given that monetary policy seems to have been more successful than the Committee had anticipated earlier in 2016, members agreed that it looked as though it would be possible to keep inflation at target over the medium term with lower interest rates than had previously been thought possible. All members agreed that it was appropriate to lower interest rates at this time. On the other hand, they also considered it necessary to take account of the growing macroeconomic imbalances and the uncertainty ahead associated with capital account liberalisation.

The Committee discussed whether the Bank's interest rates should be lowered by 0.25 or 0.5 percentage points. The main arguments for the larger reduction were that the real rate had risen more than had been assumed in the Bank's last forecast. It was pointed out that the real rate was nearly 1 percentage point higher than it had been when the MPC had last decided to change interest rates. Furthermore, it was pointed out that, given how high the real rate was, the larger rate cut would better support neutral forward guidance. The main arguments expressed at the meeting in favour of the smaller rate cut were that it was appropriate to demonstrate caution in view of the significant uncertainty about the exchange rate following the next stages in capital account liberalisation, as there was the risk that inflation could rise rapidly if the króna depreciated afterwards. It was also pointed out that although inflation expectations had recently eased down to the target, it had yet to emerge how firmly anchored they were, and this would not become clear until inflation rose temporarily above target or the króna depreciated markedly. A more cautious step would also be justifiable in light of indications of robust growth in domestic demand and growing macroeconomic imbalances, particularly in the labour market. A further argument against a larger cut was that the rate cut would take the market by surprise. Members agreed, however, that even if the larger reduction were implemented, the interest rate differential with abroad would remain large enough to support the króna during the next steps towards capital account liberalisation.

In view of the discussion, the Governor proposed that the Bank's interest rates be lowered by 0.5 percentage points, which would lower the key rate (the seven-day term deposit rate) to 5.25%, deposit rates (current account rates) to 5%, the seven-day collateralised lending rate to 6%, and the overnight rate to 7%. Two members voted in favour of the Governor's proposal, and two voted against, preferring to lower interest rates by 0.25 percentage points. The Governor's proposal was therefore approved with three votes against two.

In the Committee's view, whether interest rates will be lowered further or must be raised again will depend on economic developments and on the success of the next steps in the capital account liberalisation process.

The following Committee members were in attendance:

Már Gudmundsson, Governor and Chairman of the Monetary Policy Committee

Arnór Sighvatsson, Deputy Governor

Thórarinn G. Pétursson, Chief Economist

Gylfi Zoëga, Professor, external member

Katrín Ólafsdóttir, Assistant Professor, external member

In addition, a number of Bank staff members attended part of the meeting.

Rannveig Sigurdardóttir wrote the minutes.

The next Statement of the Monetary Policy Committee will be published on Wednesday 5 October 2016.

The Monetary Policy Committee of the Central Bank of Iceland

Minutes of the Monetary Policy Committee meeting, October 2016

Published 19 October 2016

The Act on the Central Bank of Iceland stipulates that it is the role of the Monetary Policy Committee (MPC) to set Central Bank interest rates and apply other monetary policy instruments. Furthermore, the Act states that "[m]inutes of meetings of the Monetary Policy Committee shall be made public, and an account given of the Committee's decisions and the premises upon which they are based." In accordance with the Act, the MPC has decided to publish the minutes of its meetings two weeks after each interest rate decision. The votes of individual Committee members will be made public in the Bank's *Annual Report*.

The following are the minutes of the MPC meeting held on 3 and 4 October 2016, during which the Committee discussed economic and financial market developments, the interest rate decision of 5 October, and the communication of that decision.

I Economic and monetary developments

Before turning to the interest rate decision, members discussed the domestic financial markets, financial stability, the outlook for the global economy and Iceland's international trade, the domestic economy, and inflation, with emphasis on information that has emerged since the 24 August interest rate decision.

Financial markets

Since the August meeting, the króna had appreciated by 3.1% in trade-weighted terms, by 2.1% against the US dollar, by 3.6% against the euro, and by 5.5% against the pound sterling. The Central Bank's net foreign currency purchases in the domestic foreign exchange market totalled approximately 333 million euros (roughly 43 b.kr.) between meetings, or 53.2% of total market turnover. The Bank's net purchases year-to-date totalled 2,143 million euros (294 b.kr.)

Interest rates in the interbank market for krónur had developed in line with the Bank's key rate, and there was some trading after a long hiatus. In terms of the Central Bank's real interest rate, the monetary stance was virtually unchanged since just after the rate cut in August. In terms of the average of various measures of inflation and inflation expectations, the Bank's real rate was 2.8%.

Yields on most nominal Treasury bonds declined by 0.5-0.6 percentage points following the Bank's interest rate reduction in August, and by another 0.2-0.4 percentage points after Statistics Iceland published the August consumer price index (CPI) and Moody's announced its upgrade of Iceland's sovereign credit ratings in early September. Yields on indexed Treasury and Housing Financing Fund (HFF) bonds declined by 0.3-0.5 percentage points over the same period, however. The five-and ten-year breakeven inflation rate in the bond market was 2.1% at the beginning of September, 0.5-0.6 percentage points lower than it had been at the time of the August meeting. The decline reversed in part after the publication of the CPI in late September, and the breakeven rate was 2.4% at the time of the October meeting.

The three large commercial banks' deposit rates and mortgage lending rates had declined in line with the Bank's interest rate reduction in August, but indexed mortgage rates were broadly unchanged.

Risk premia on Treasury foreign obligations were broadly unchanged between meetings. The CDS spread on five-year Treasury obligations was 0.9%, and the risk premium as measured in terms of the interest rate spread between the Treasury's eurobond issues and comparable government bonds issued by Germany, on the one hand, and the United States, on the other, was 1.1-1.2 percentage points.

After the correction of the error in Statistics Iceland's inflation measurement at the end of September, all of the financial institutions' analysts expected the Bank's nominal interest rates to remain unchanged, arguing that the previously cited grounds for a rate reduction no longer existed, as the correction had entailed that real interest rates in terms of twelve-month inflation were considerably lower than previously thought.

In August, M3 grew by about 1.9% year-on-year after adjusting for the deposits held by the financial institutions in winding-up proceedings, about the same rate of growth as in most of 2016. As in recent months, the rise is due primarily to increased household deposits. The total stock of credit system lending to resident borrowers grew over the same period by 0.7%, and by approximately 1.5% adjusted for the Government's debt relief measures. As before, this growth seems to be driven largely by increased corporate lending, although household lending grew marginally year-on-year as well, when adjusted for the aforementioned debt relief measures.

The Nasdaq OMXI8 index had risen by 1.8% between meetings but had fallen by 7.7% since the beginning of the year. Turnover in the Nasdaq Iceland main market totalled just over 427 b.kr. over the first nine months of the year, about 63% more than over the same period in 2015.

Global economy and external trade

Iceland's external goods trade generated a deficit of 84.4 b.kr. for the first eight months of the year, as opposed to a deficit of 12 b.kr. over the same period in 2015. Export values contracted by 9.5% at constant exchange rates, while import values rose 9.5%. The downturn in exports is due primarily to a contraction of 16% in industrial exports and nearly 5% in marine product exports. The rise in imports stems primarily from a year-on-year increase of 42% in transport equipment imports and about one-fifth in imports of consumer goods and investment goods.

The listed global market price of aluminium was virtually unchanged since the August meeting, and the average September price was unchanged year-on-year as well. However, foreign currency prices of marine products rose by about 1.7% between months in August and had risen 6.6% year-on-year at that time.

In terms of relative consumer prices, the real exchange rate measured 90.5 points in August and had risen each month since December 2015. It was up 10.7% year-on-year in the first eight months of 2016, due mostly to the 9.9% nominal appreciation of the króna, although inflation in Iceland was 0.7 percentage points above the trading partner average.

The domestic real economy and inflation

According to preliminary figures published by Statistics Iceland in September, GDP growth measured 3.7% in Q2/2016. Domestic demand grew 9.7% year-on-year during the quarter. Of that total, consumption and investment grew by a total of 10.9%, whereas the contribution from inventory changes was negative during the quarter. The contribution from net trade was negative in spite of nearly 5% growth in exports, as import growth was much stronger, at 16.7%.

GDP growth therefore measured 4.1% in the first half of the year, reflecting the offsetting effects of 9.4% growth in domestic demand and the negative contribution from net trade. The national accounts are broadly in line with the Central Bank's August forecast. However, domestic demand was somewhat stronger than was projected there, but was offset by somewhat weaker contribution from net trade because of weaker-than-expected services exports. GDP growth was somewhat above the Bank's forecast of 3.6% for the period.

The current account balance was positive by 31.8 b.kr., or 5.4% of GDP, in Q2. This is a larger surplus than in the previous quarter but similar to that in the same quarter of 2015. The surplus for the second quarter was due to a 62.3 b.kr. surplus on services trade and an 8 b.kr. surplus on primary and secondary income, which were offset by a 38.5 b.kr. deficit on goods trade. A revision of earlier figures also shows a larger surplus in 2015 and Q1/2016, owing to more strongly positive services and income balances than previously anticipated.

Private consumption grew by 8.2% in Q2 and by 7.7% in the first half of the year. Key indicators such as payment card turnover, new motor vehicle registrations, and retail sales figures for the first two months of Q3 suggest continued strong growth; furthermore, developments in real wages and house prices support household demand. The Gallup Consumer Confidence Index measured 131.9 in September, more than 28 points higher than in September 2015. The big-ticket index, which measures households' planned major purchases, declined between measurements, however, to 65 points in September.

According to Gallup's autumn survey among Iceland's 400 largest firms, carried out in August and September, executives are optimistic about the economic outlook. The index for the current state of the economy measured 194.3, the fourth-highest value ever recorded. The indices for transport and tourism, construction, financial services, and retail and wholesale trade all measured 200, the highest value the indices permit. More than half of executives expect economic conditions to be unchanged (i.e., still favourable) six months ahead. According to the survey, respondents were not as optimistic as in the summer survey but somewhat more so than in September 2015.

According to Gallup's autumn survey, firms interested in recruiting staff in the next six months outnumbered those planning redundancies by nearly a third. This is a somewhat smaller percentage than in the summer survey but a marked increase from the survey taken a year earlier. As in the summer survey, about 42% of firms considered themselves short-staffed, an increase of over 16 percentage points in the past year.

The wage index rose by 0.3% month-on-month in August and by 11.2% year-on-year, while real wages rose by 10.1% year-on-year.

Statistics Iceland's nationwide house price index rose by 4.2% quarter-on-quarter in Q3 when adjusted for seasonality and 10.2% year-on-year. The capital area real estate price index, calculated by Registers Iceland, rose by 1.7% month-on-month in August, when adjusted for seasonality, and by 13.1% year-on-year. The number of purchase agreements registered nationwide rose by 9% year-on-year in the first eight months of 2016.

The CPI rose by 0.48% month-on-month in September, after rising 0.34% in August. Twelve-month inflation measured 1.8% in September and had risen significantly since the MPC's August meeting. However, excluding the housing component, it had fallen by 0.4% since September 2015. Most measures of underlying inflation indicate that it lay in the 2-2.5% range in September and had risen between months.

The inflation spike in September is due mainly to two factors: base effects from a steep decline in prices in September 2015 and increases in the cost of owner-occupied housing. The correction of Statistics Iceland's measurement error strongly affected the rise in the housing component of the CPI, as price increases in August were included in September inflation figures. Because of the correction, the CPI rose 0.27 percentage points more during the month than it would have otherwise. Furthermore, seasonal factors affected the September inflation measurement. End-of-sale-effects pushed prices upwards, while airfares pulled in the opposite direction. Private services prices had risen by 0.8% year-on-year in September, as opposed to a 0.5% rise in July.

In the third quarter, inflation measured 1.3% but would have been 1.5% if the aforementioned measurement error had not taken place. This is well in line with the Bank's forecast of 1.2%, published in *Monetary Bulletin* 2016/3. Statistics Iceland's correction also shows that the Bank's overestimation in the beginning of the year was somewhat smaller than previously thought.

According to the Gallup survey, household inflation expectations were at an all-time low in September. One-year expectations measured 2.5%, a decline of 0.7 percentage points since the previous survey, conducted in May, and two-year expectations were 3%, a decline of 1 percentage point between surveys. According to Gallup's autumn survey of corporate inflation expectations, one-year expectations had fallen by 1 percentage point, to 2%, and two-year expectations had fallen by 0.5 percentage points, to 3%.

II The interest rate decision

The Governor updated the Committee on matters relating to capital account liberalisation. The Committee discussed the Bank's foreign exchange market intervention policy. Members agreed to maintain an unchanged intervention policy at this juncture, as the bill of legislation amending the Foreign Exchange Act had not yet been passed, as the Committee had assumed it would be at its last meeting, and the easing of controls provided for immediately upon passage of the bill had not yet taken place. The MPC decided, however, to review the situation at its next meeting or at an extraordinary meeting, if necessary.

Committee members discussed whether developments since the previous meeting had changed its assessment of whether the monetary stance was appropriate and whether the outlook had changed. At the August meeting, the MPC had decided to lower the Bank's interest rates by 0.5 percentage points because it appeared likely that inflation could be kept at target over the medium term with lower interest rates than previously considered possible.

Committee members discussed the information that had emerged between meetings and agreed that the overall situation was broadly unchanged since the previous meeting. The Committee was of the view that continued strong GDP growth could be expected in the near term, as the most recent indicators suggested that growth could turn out even stronger than members had previously expected.

As the MPC had anticipated, inflation rose again in September because of unfavourable base effects. The rise in the CPI was somewhat larger than had been expected, however, because of the correction of Statistics Iceland's measurement error covering the period from March to August. In spite of the correction, members agreed that the inflation outlook was broadly unchanged from the Bank's August forecast. It was noted in discussion that the change was within the 50% confidence interval of the forecast, and it was also pointed out that the króna had appreciated even more than the forecast had provided for. Furthermore, inflation expectations had remained close to the inflation target by most measures. Members also considered it positive that households' and businesses' inflation expectations had fallen significantly since the last meeting. They also noted that the Bank's overestimation of inflation in Q2 and Q3 in the forecasts published in the first half of the year had proven to be smaller than previously thought. Moreover, it was pointed out that if correctly measured, inflation had not fallen below the 1% lower deviation limit of the inflation target in August; therefore, the Bank would not have had to send a special report to the Government about the deviation.

Committee members considered the fact that in spite of large pay increases and rapid demand growth, inflation had remained below target for two-and-a-half years. They agreed, as before, that improved terms of trade, low global inflation, tight monetary policy, and the appreciation of the króna in spite of large foreign currency purchases by the Central Bank had offset the effects of wage increases on the price level. Some concerns were expressed about the large rise in the real exchange rate in a short period of time, and it was pointed out that there was some uncertainty about the sustainability of the rise in the long run; that is, the improvement in terms of trade and the steady stream of tourists to Iceland. Various signs of impending overheating had emerged, but on the other hand, credit growth was within moderate limits, and Iceland's external balance and net position did not indicate that the premises for GDP growth would be derailed in the coming term. The Committee decided to discuss developments and prospects for the exchange rate at its next meeting, when it could be expected that the first effects of general capital account liberalisation would have emerged.

No members saw any reason to change interest rates at present. In view of the discussion, the Governor proposed that the Bank's interest rates be held unchanged. The Bank's key rate (the seven-day term deposit rate) would remain 5.25%, the current account rate 5%, the seven-day collateralised lending rate 6%, and the overnight lending rate 7%. All Committee members voted in favour of the proposal.

Committee members agreed that the likelihood of increased macroeconomic imbalances and the uncertainty associated with capital account liberalisation argued for caution in interest rate setting. The monetary stance in the coming term would depend on economic developments and the success of the capital account liberalisation process.

The following Committee members were in attendance:

Már Gudmundsson, Governor and Chairman of the Monetary Policy Committee

Arnór Sighvatsson, Deputy Governor

Thórarinn G. Pétursson, Chief Economist

Gylfi Zoëga, Professor, external member

Katrín Ólafsdóttir, Assistant Professor, external member

In addition, a number of Bank staff members attended part of the meeting.

Rannveig Sigurdardóttir wrote the minutes.

The next Statement of the Monetary Policy Committee will be published on Wednesday 16 November 2016.

The Monetary Policy Committee of the Central Bank of Iceland

Minutes of the Monetary Policy Committee meeting, November 2016

Published 30 November 2016

The Act on the Central Bank of Iceland stipulates that it is the role of the Monetary Policy Committee (MPC) to set Central Bank interest rates and apply other monetary policy instruments. Furthermore, the Act states that "[m]inutes of meetings of the Monetary Policy Committee shall be made public, and an account given of the Committee's decisions and the premises upon which they are based." In accordance with the Act, the MPC has decided to publish the minutes of its meetings two weeks after each interest rate decision. The votes of individual Committee members will be made public in the Bank's Annual Report.

The following are the minutes of the MPC meeting held on 14 and 15 November 2016, during which the Committee discussed economic and financial market developments, the interest rate decision of 16 November, and the communication of that decision.

I Economic and monetary developments

Before turning to the interest rate decision, members discussed the domestic financial markets, financial stability, the outlook for the global economy and Iceland's international trade, the domestic economy, and inflation, with emphasis on information that has emerged since the 5 October interest rate decision, as published in the new forecast and analysis of uncertainties in *Monetary Bulletin* 2016/4 on 16 November.

Financial markets

Since the October meeting, the króna had appreciated by 4.6% in trade-weighted terms, by 4.9% against the euro, by 4.1% against the pound sterling, and by 1.4% against the US dollar. The Central Bank's net foreign currency purchases in the domestic foreign exchange market totalled approximately 475 million euros (roughly 59.4 b.kr.) between meetings, or 54.4% of total market turnover. The Bank's net purchases year-to-date totalled 2,618 million euros (353.6 b.kr.) Since August, the Bank has bought a smaller share of foreign exchange market inflows than it did earlier in the year.

Interest rates in the interbank market for krónur had developed in line with the Bank's key rate, and there was moderate trading. In terms of the Bank's real rate, the monetary stance had tightened marginally since the October meeting. In terms of the average of various measures of inflation and inflation expectations, the Bank's real rate had risen by 0.2 percentage points between meetings, to 3.0%.

Yields on nominal Treasury bonds and indexed Treasury and Housing Financing Fund (HFF) bonds were broadly unchanged between meetings.

The large commercial banks' indexed and non-indexed deposit and lending rates were virtually unchanged since the October meeting, as was the pension funds' average mortgage lending rate.

Risk premia on Treasury foreign obligations were broadly unchanged between meetings. The CDS spread on five-year Treasury obligations measured 0.9%. The risk premium as measured in terms of the interest rate spread between the Treasury's eurobond issue and a comparable bond issued by Germany was 1.1 percentage points, whereas a comparable spread against US Treasury bonds had narrowed by 0.2 percentage points, to 0.9 percentage points. The spread against US and German bonds is now at its smallest since the issuance of the Icelandic bonds in 2012 and 2014.

Financial institutions' analysts expected either no change or a 0.25 percentage point interest rate cut this time. They agreed, however, that the interest rate decision was uncertain, as there were differing factors pulling in opposite directions. They made reference, on the one hand, to a sizeable output gap, which called for an unchanged policy stance, and on the other, to the marked improvement in the inflation outlook, owing to the appreciation of the króna, which could call for easing the monetary stance.

M3 grew by 2.8% year-on-year in Q3/2016, after adjusting for deposits held by financial institutions in winding-up proceedings, which is similar to the growth rate in Q2 but somewhat slower than in the four quarters before that. Deposit institutions' excess reserves with the Central Bank – i.e., their current account deposits in excess of required reserves – have remained relatively stable, while banknotes and coin in circulation have increased in tandem with the rise in foreign tourists visiting Iceland.

After adjusting for the Government's debt relief measures, the total stock of credit system loans to resident borrowers grew by 1.8% year-on-year in nominal terms in Q3, and by just under 3% after adjusting for the effects of exchange rate movements on the foreign-denominated credit stock. As before, growth is due mainly to an increase in corporate lending. Pension fund loans to households have increased markedly in the past year, and the stock of loans to fund members grew by a fourth year-on-year in Q3. The pension funds' share in the total increase in lending to households is now similar to that of deposit institutions. On the other hand, the stock of HFF loans has continued to contract, and the combined increase in credit system lending to households is still relatively modest in spite of robust growth in domestic demand.

The Nasdaq OMXI8 index had fallen by 2.2% between meetings between meetings and by nearly 10% since the beginning of the year. Turnover in the Nasdaq Iceland main market totalled just over 480 b.kr. over the first ten months of the year, about 50% more than over the same period in 2015.

Global economy and external trade

Iceland's external goods trade generated a deficit of 82.2 b.kr. for the first ten months of the year, as opposed to a deficit of 25.3 b.kr. over the same period in 2015. Export values contracted by 4.8% at constant exchange rates, while import values rose 7.7%. The downturn in exports is due primarily to an 11.5% contraction in industrial exports. The rise in imports stems primarily from a year-on year increase of 37% in transport equipment imports, a rise of a fifth in imports of "other consumer goods", and a 14% increase in imports of investment goods.

The listed global market price of aluminium had risen by about 3.4% since the October meeting, and the average price in October was up about 9.2% year-on-year. On the other hand, foreign currency prices of marine products had declined by 0.6% month-on-month in September but had risen by 6% year-on-year.

In terms of relative consumer prices, the real exchange rate has risen each month since December 2015. In October it measured 95 points, nearly 17% above its 25-year average. It was up 11.4% year-on-year in the first ten months of 2016, due primarily to a 10.5% nominal appreciation of the króna, but in addition, inflation in Iceland was 0.7 percentage points above the average among its trading partners.

The domestic real economy and inflation

The wage index rose by 1.6% between quarters in Q3, and by 11% year-on-year, while real wages rose 8.5% between years.

According to the Statistics Iceland labour force survey for Q3, total hours worked rose by 3.2% year-on-year, as the Bank had forecast in August. The rise in total hours can be attributed to a 4.5% increase in the number of employed persons, although the average work week was shortened by 1.2%.

Seasonally adjusted unemployment measured 3.1% in Q3, having declined by about a percentage point year-on-year. Labour participation increased by just over 1 percentage point year-on-year and is now back to the early 2007 peak.

Key indicators of private consumption indicate continued strong growth in Q3. Payment card turnover increased by slightly more than 11% year-on-year and new motor vehicle registrations by just over 41%. Groceries turnover also grew considerably during the quarter, and other retail indices rose year-on-year.

Statistics Iceland's nationwide house price index, published at the end of October, rose by 1.4% month-on-month, after adjusting for seasonality, and by 12.7% year-on-year. The capital area real estate price Index, calculated by Registers Iceland, rose by 0.3% month-on-month in September when adjusted for seasonality, and by about 12.2% between years. The number of purchase agreements registered nationwide rose by 9.1% year-on-year in the first nine months of 2016.

The Gallup Consumer Confidence Index measured 144.3 points in October, an increase of 12.4 points between months and about 35.4 points between years. This is the highest measurement since June 2007. All sub-indices rose between months and between years.

The CPI remained unchanged between months in October, and headline inflation measured 1.8%. The CPI excluding the housing component had declined by 0.5% in the past twelve months, however. Most measures of underlying inflation suggested that it had been unchanged month-on-month in October, in the 2-2.5% range.

The main driver in October was the rise in the cost of owner-occupied housing, while the decline in food prices and postal and telephone services prices pulled in the opposite direction. Private services prices had risen by 0.9% year-on-year in October, as opposed to a 0.8% rise in September.

According to the Central Bank's survey of market agents' inflation expectations, conducted at the beginning of November, participants expect inflation to measure 2.2% in one year. This is 0.1 percentage point less than in the previous survey, taken in August 2016. Their expectations two years ahead were unchanged at 3%. Furthermore, market agents expect inflation to average 2.8% over the next ten years, or 0.2 percentage points less than in the August survey. Indicators of reduced long-term inflation expectations could also be seen in the breakeven inflation rate in the bond market, as the ten-year breakeven rate had measured 2.2-2.3% thus far in Q4, as opposed to just over 2.5% in Q3.

According to the forecast published in *Monetary Bulletin* on 16 November 2016, inflation will rise in the coming term, but more slowly than previously projected. Inflation averaged 1.3% in Q3, which is broadly in line with the August forecast. As in August, it is forecast to rise in Q4, to 2.1%, owing in part to unfavourable base effects. As 2017 progresses, however, the new baseline forecast deviates markedly from the Bank's previous forecast. Instead of continuing to rise, peaking at almost 3¾% in H1/2018, as was projected in August, inflation will remain in the 2.5-3% range throughout the forecast horizon. The main reason for reduced inflation is that the new forecast is not based on the technical assumption that the exchange rate of the króna will remain constant throughout the forecast horizon; instead, it is based on an endogenous exchange rate path. The current forecast assumes that the exchange rate will continue to rise over the majority of the forecast horizon. In addition, it is assumed that the output gap will be narrower and the rise in unit labour costs smaller.

Among Iceland's main trading partners, GDP growth has been weak for some time. It averaged 1.6% in H1/2016 and, according to the baseline forecast, will be close to that level for the year as a whole. The GDP growth outlook for 2016 is more or less unchanged from the forecast in the August *Monetary Bulletin*, as the outlook for weaker growth in the US offsets a pickup in several other advanced economies. The outlook is for growth in trading partner countries to remain broadly unchanged over the next two years and edge upwards to about 1.9% by 2019.

Over the past two years, the price of Iceland's exported goods has risen markedly in comparison with trading partner exports. Terms of trade have therefore improved by nearly 10% over this period and look set to improve by a further 3% this year. Even though global oil prices have risen more strongly and marine and aluminium product prices have developed less favourably than was assumed in August, this is a larger improvement in terms of trade than was projected at that time, owing mainly to more favourable developments in other import and export prices. Terms of trade are expected to improve marginally next year but, as was assumed in August, deteriorate slightly in the latter half of the forecast horizon.

The outlook for exports in 2016 is broadly unchanged from the Bank's August forecast. Because of base effects attributable to national accounts revision in September, exports are expected to grow by nearly 1 percentage point less in real terms than was forecast in August. Because of the reduced capelin quota, marine product exports are now expected to contract by 2% in 2017 instead of growing by 3½%. On the other hand, the outlook is for stronger exports of services and miscellaneous manufactured goods. Export growth is then projected to ease in 2018-2019, in line with the rising real exchange rate and weaker growth in global economic activity.

According to preliminary figures from Statistics Iceland, output growth measured 4.1% in H1/2016. This is similar to the growth rate for 2015 as a whole but above the Bank's August forecast of 3.6% for H1. Year-on-year GDP growth is estimated to have picked up even further in the third quarter, to 6¾%. According to the forecast, it will measure 5% for 2016 as a whole, broadly in line with the August forecast. As before, strong growth in private consumption and investment pull in one direction and the negative contribution from net trade – in spite of nearly 8% export growth – in the other. As in the Bank's previous forecasts, it is assumed that GDP growth will gradually ease towards its long-term trend rate, measuring about 3% in 2018 and 2¾% in 2019.

Excluding the stability contributions, the cyclically adjusted primary balance is estimated to deteriorate by about 1.2% of GDP this year, in addition to last year's fiscal easing of 1.3%, making for a total easing of 2.5% of GDP in 2015-2016. The fiscal stance is expected to ease by a further 1% of GDP in 2017 and then be broadly neutral over 2018-2019.

The domestic labour market is strong as well. Total hours worked have risen by 2.7% year-on-year in 2016 to date, and the increase for the year as a whole is estimated at 3%, slightly more than was forecast in August. Total hours are expected to rise by 3½% in 2017 and then taper off slightly in 2018, as GDP growth moves towards its long-term trend rate. According to the forecast, unemployment will average 3.1% this year, slightly more than was forecast in August. It is expected to be broadly unchanged next year and then gradually rise to the level consistent with low and stable inflation.

It is still the case that the main source of domestic inflationary pressures is in the labour market, as the large pay hikes provided for in the last wage agreements stimulate demand through rising household income and could induce firms to pass rising wage costs through to prices.

Firms' wage costs are estimated to rise by 9½% over the year as a whole, somewhat less than was assumed in the Bank's August forecast. As in August, the rise in wages is expected to lose pace in coming years. Although unit labour costs are expected to rise more slowly than was forecast in August, owing to the expectation of more rapid productivity growth in the coming two years, they are still expected to increase well above the level that is consistent with medium-term price stability.

As unemployment has declined, it has become more difficult for firms to hire workers, and there is a growing labour shortage in nearly all sectors. As a result, there are indications of growing demand pressures in the economy. As in the Bank's previous forecasts, the output slack is considered to have disappeared in 2015 and the positive output gap is projected at just over 2% of potential output in 2016. To a degree, though, labour shortages have been addressed with imported labour, which increases potential output and eases pressures on domestic resources. It is assumed that there will be more importation of labour during the forecast horizon than was projected in August. As a result, the output gap will be smaller from 2017 onwards than was forecast at that time.

The baseline forecast reflects the assessment of the most likely economic developments during the forecast horizon. It is based on forecasts and assumptions concerning developments in the external environment of the Icelandic economy, as well as assessments of the effectiveness of specific markets and on the transmission of monetary policy to the real economy. All of these factors are subject to uncertainty. The uncertainties described in the November *Monetary Bulletin* show clearly that the inflation outlook for the next three years could easily deviate from the scenario presented in the baseline forecast. Inflation could turn out higher, for example, if households step up consumption more than is assumed in the baseline forecast. A wage settlement review early in 2017 could bring about larger pay rises than are forecast, and tension in the labour market could result in more wage drift than is projected. Firms' capacity and willingness to absorb the associated cost increases could also be overestimated. A limited supply of housing, increasing rentals to tourists, and significant importation of labour could also cause house prices to rise more rapidly than is assumed. This would raise headline inflation directly, through the housing component of the CPI, and indirectly, through stronger demand stemming from homeowners increased wealth. Demand pressures could also prove to be underestimated if the fiscal stance is eased even further in the wake of the recent elections. Furthermore, it is uncertain how firmly anchored inflation expectations are and how they will develop if the króna should depreciate in the future.

Inflation could also be overestimated in the forecast. For example, the global economic outlook could turn out too optimistic and projections for the domestic economy likewise, and imported deflation could prove more persistent than is currently assumed – that is, as long as the króna does not give way. The króna could also appreciate further and productivity growth could rise towards its trend rate more quickly than the baseline forecast indicates. Firms' willingness to streamline so as to absorb the cost increases stemming from wage settlements could also be underestimated in the baseline forecast – e.g., if competition proves stiffer than is currently assumed.

II The interest rate decision

The Governor updated the Committee on matters relating to capital account liberalisation. The Committee also discussed the Bank's foreign exchange market intervention policy, particularly in view of the fact that amendments to the Foreign Exchange Act had recently been passed and the liberalisation of capital controls on individuals and businesses had therefore begun. Capital outflows had not been substantial as yet, however. Inflows into the foreign exchange market had been significant since the Committee's last meeting, however, and appeared to stem primarily from the external trade surplus – due mainly to improved terms of trade and growth in exports, in particular tourism – and to capital inflows unconnected to carry trade-related investment in the bond market. Committee members agreed that the recent appreciation of the króna was due at least partly to an adjustment to a higher equilibrium real exchange rate. The Central Bank had bought substantial amounts of foreign currency during the prelude to capital account liberalisation in order to build up the foreign exchange reserves, but the MPC was of the view that the reserves were now sufficiently large in terms of the criteria the Bank had set. Since August, the Bank had bought a smaller share of foreign currency inflows than it had earlier in the year. Members agreed that, other things being equal, it was appropriate to continue in this vein and to review the situation at the Committee's next regular meeting.

The MPC discussed whether developments since the previous meeting had changed its assessment of whether the monetary stance was appropriate and whether the outlook had changed. At the October meeting, the Committee had decided to keep the Bank's interest rates unchanged, as the growing macroeconomic imbalances and uncertainties associated with capital account liberalisation argued for caution in interest rate setting.

In this context, the MPC took account of the new baseline forecast published in *Monetary Bulletin* on 16 November. According to the forecast, GDP growth appears set to be strong in 2016 and 2017 and the outlook is for stronger growth in economic activity than the Bank had projected in August. The Committee also considered that GDP growth was driven more by domestic demand than before, job creation had been strong, unemployment had fallen swiftly, and there were clearer signs than before that rapid demand growth had begun to strain domestic resources. Members agreed, however, that increased labour importation appeared to ease the pressure somewhat.

Members discussed developments in inflation, which had measured 1.8% in October and had remained below target for nearly three years in spite of large pay increases and rapid demand growth. Underlying inflation had also been below target, although by a smaller margin than headline inflation. As they had done at previous meetings, they discussed the reasons for low inflation in spite of increased demand pressures in the economy. They agreed, as before, that improved terms of trade, low global inflation, and the appreciation of the króna had offset the effects of wage increases on the price level.

They also agreed that a tight monetary stance had played an important role in containing inflation and anchoring inflation expectations more securely. It had done this by slowing demand growth, directing some of the steep rise in income and wealth towards saving, and containing credit growth. The Committee was of the view that in this way, monetary policy had supported the exchange rate of the króna, which had lowered import prices even further and shifted some of the strong demand towards imports.

The MPC noted that according to the Bank’s new inflation forecast, the outlook is for inflation to be below target until mid-2017 and in the 2½-3% range from then until the end of the forecast horizon. The discussion turned to the outlook for considerably lower inflation than in the Bank’s previous forecasts, which had indicated that inflation would rise over the course of the horizon. Members agreed that the more favourable developments in inflation were due in large part to the fact that the baseline forecast is now based on an endogenous exchange rate path and not on the technical assumption of a constant exchange rate throughout the forecast horizon. The transmission of monetary policy through the exchange rate channel was therefore more effective and inflation would remain moderate for a longer period. The Committee also discussed the fact that in its recent decisions, most members had expected a significant appreciation of the króna. The change in the inflation forecast therefore provided less grounds for monetary policy response than might be expected based on changes in the Bank’s published forecasts. In the MPC’s opinion, the inflation outlook had also improved, even taking account of this, particularly the short-term outlook.

The MPC discussed the monetary stance, which had tightened marginally since the October meeting, in terms of both the Bank’s real rate and the appreciation of the króna. In the Committee’s opinion, there were grounds for keeping interest rates unchanged and for lowering them by 0.25 percentage points.

The main argument in favour of unchanged interest rates that was expressed at the meeting was that, even though conditions for a rate cut could be developing, it was not timely to take such a decision because uncertainty about important factors had increased, at least in the short run. Most important among them were the uncertainties about the fiscal stance following the recent elections and the incoming Government’s economic policy. Members also agreed that unrest in the labour market had increased, particularly in the wake of the recent ruling providing for pay increases for elected officials. If a wage settlement revision is triggered next year, it could entail larger pay increases than were assumed in the Bank’s forecast. Furthermore, there was still some uncertainty about the impact of capital account liberalisation, although members agreed that the process had been smooth thus far. Added to domestic uncertainties was the fact that uncertainty about the global economic outlook had increased between meetings. Those members who leaned most strongly towards keeping interest rates unchanged were also of the view that even though there could be grounds for increasing incentives for foreign investment, a 0.25-point rate cut would probably have little effect. In order to increase foreign investment, a substantial rate reduction would be needed, together with a clear message that rates would be kept low for some time. This, however, would be at odds with the interest rate needed to contain domestic demand pressures.

The main grounds for a rate cut that were expressed at the meeting were that the monetary stance had tightened more than previously expected, owing to the appreciation of the króna. The outlook was for the króna to keep strengthening well into 2017. Such a tight stance was not entirely appropriate in view of developments in inflation, and therefore, it could be appropriate to ease temporarily the tightening caused by the currency appreciation. A smaller interest rate spread with abroad could encourage residents to invest abroad, thereby mitigating the appreciation, which had recently been both steep and rapid. Those members who considered conditions appropriate for a rate reduction nevertheless thought there was reason for caution. They were not convinced that monetary easing could continue but were of the view that the situation would have to be reviewed in light of developments in other factors that affect the monetary stance. These members considered it unlikely that the fiscal stance would change radically from that assumed in the baseline forecast before the presentation of the 2018 fiscal budget. As a result, it would be pointless to wait with a rate cut until fiscal policy was clarified. They also emphasised that the risk of a steep post-liberalisation drop in the exchange rate had subsided markedly, as such pressures would presumably have come to the fore already.

In view of the discussion, the Governor proposed that the Bank’s interest rates be held unchanged. The Bank’s key rate (the seven-day term deposit rate) would remain 5.25%, the current account rate 5%, the seven-day collateralised lending rate 6%, and the overnight lending rate 7%. Three members voted in favour of the Governor’s proposal. Two members voted against the Governor’s proposal, voting instead to lower interest rates by 0.25 percentage points.

MPC members agreed that although inflation expectations appeared to be more firmly anchored to target and the monetary stance had tightened to some extent through the appreciation of the króna, strong demand growth and the aforementioned uncertainties called for caution in interest rate setting. The Committee was of the view that in the coming term, the monetary stance will be determined by economic developments and actions taken in other policy spheres.

The following Committee members were in attendance:

Már Gudmundsson, Governor and Chairman of the Monetary Policy Committee

Arnór Sighvatsson, Deputy Governor

Thórarinn G. Pétursson, Chief Economist

Gylfi Zoëga, Professor, external member

Katrín Ólafsdóttir, Assistant Professor, external member

In addition, a number of Bank staff members attended part of the meeting.

Rannveig Sigurdardóttir wrote the minutes.

The next Statement of the Monetary Policy Committee will be published on Wednesday 14 December 2016.

The Monetary Policy Committee of the Central Bank of Iceland

Minutes of the Monetary Policy Committee meeting, December 2016

Published 28 December 2016

The Act on the Central Bank of Iceland stipulates that it is the role of the Monetary Policy Committee (MPC) to set Central Bank interest rates and apply other monetary policy instruments. Furthermore, the Act states that "[m]inutes of meetings of the Monetary Policy Committee shall be made public, and an account given of the Committee's decisions and the premises upon which they are based." In accordance with the Act, the MPC has decided to publish the minutes of its meetings two weeks after each interest rate decision. The votes of individual Committee members will be made public in the Bank's *Annual Report*.

The following are the minutes of the MPC meeting held on 13 December 2016, during which the Committee discussed economic and financial market developments, the interest rate decision of 14 December, and the communication of that decision.

I Economic and monetary developments

Before turning to the interest rate decision, members discussed the domestic financial markets, financial stability, the outlook for the global economy and Iceland's international trade, the domestic economy, and inflation, with emphasis on information that has emerged since the 16 November interest rate decision.

Financial markets

Since the November meeting, the króna had appreciated by 1.3% in trade-weighted terms, by 2.6% against the euro, by 0.8% against the US dollar, and depreciated by 1.4% against the pound sterling. The Central Bank's net foreign currency purchases in the domestic foreign exchange market totalled approximately 171 million euros (roughly 20.5 b.kr.) between meetings, or 53% of total market turnover. The Bank's net purchases year-to-date totalled 2,789 million euros (374 b.kr.)

Interest rates in the interbank market for krónur had developed in line with the Bank's key rate. The Bank's real rate, in terms of the average of various measures of inflation and inflation expectations, was virtually unchanged at 2.9%.

Yields on nominal Treasury bonds and indexed Treasury and Housing Financing Fund (HFF) bonds were broadly unchanged between meetings.

The large commercial banks' indexed and non-indexed deposit and lending rates were unchanged since the November meeting, as was the pension funds' average mortgage lending rate.

Risk premia on Treasury foreign obligations were broadly unchanged since the Committee's last meeting. The CDS spread on five-year Treasury obligations in US dollars was still about 0.9%, and the risk premium as measured in terms of the interest rate spread between the Treasury's foreign currency issues and comparable bonds issued by the US and Germany had increased by about 0.1-0.2 percentage points.

Financial institutions' analysts had expected either no change or a reduction in the Central Bank's nominal interest rates in December. As grounds for an unchanged key rate, they cited strong growth in domestic demand, tension in the labour market, and uncertainty about fiscal policy and capital account liberalisation. The main grounds for a rate cut were that, even though the national accounts for the first nine months of the year showed stronger GDP growth than the Bank had forecast in November, the composition of GDP growth indicated that inflationary pressures were probably less pronounced. The appreciation of the króna in the recent term had also tightened the monetary stance more than the Central Bank had forecast.

M3 grew by 4.1% year-on-year in September and by 5.7% in October, after adjusting for deposits held by financial institutions in winding-up proceedings, a stronger growth rate than in the preceding six months. As before, the increase is due primarily to a rise in household deposits, although non-financial company deposits have also increased year-on-year.

After adjusting for the Government's debt relief measures, the total stock of credit system loans to resident borrowers grew by 1.9% year-on-year in nominal terms in October, and by roughly 3.4% after adjusting for the effects of exchange rate movements on the foreign-denominated credit stock. As before, growth is due mainly to an increase in corporate lending. Pension funds' and deposit institutions' household lending has continued to increase, while the stock of Housing Financing Fund (HFF) loans has contracted. The combined increase in credit system lending to households therefore remains relatively modest at 2.4% year-on-year in October, adjusted for the effects of the Government's debt relief measures.

The Nasdaq OMXI8 index was virtually unchanged between meetings but had fallen by 9.5% since the beginning of the year. Turnover in the Nasdaq Iceland main market totalled just over 520 b.kr. over the first eleven months of the year, about 42% more than over the same period in 2015.

Global economy and external trade

According to the Organisation for Economic Co-operation and Development's (OECD) November forecast, GDP growth and world trade will be marginally weaker in 2016 than in the OECD's June forecast. Global GDP growth is projected at 2.9% this year, about 0.1 percentage point below the OECD's June forecast; however, the forecast for the next year is unchanged at 3.3%. The OECD's 2016 GDP growth forecast for Iceland's main trading partners is virtually unchanged since June, at 1.6%, but the forecast for 2017 has been revised downward by 0.2 percentage points, to 1.7%, which is in line with the forecast in the November *Monetary Bulletin*. The OECD slightly increased its 2016 inflation forecast for Iceland's trading partners but kept the 2017 forecast unchanged. Trading partner inflation is forecast at 1% in 2016, 1.6% in 2017, and 1.9% in 2018.

Iceland's external goods trade generated a deficit of 92 b.kr. for the first eleven months of the year, as opposed to a deficit of 24 b.kr. over the same period in 2015. Export values contracted by 4.8% at constant exchange rates, while import values rose 9.2%. The export value of industrial goods contracted by nearly 11% and the export value of marine products by nearly 2%. The rise in imports stems primarily from a year-on year increase of 39% in transport equipment imports, a rise of a fifth in imports of "other consumer goods", and a 15% increase in imports of investment goods.

The listed global market price of aluminium had risen by about 1.6% since the November meeting, and the average price in November was up about 18.4% year-on-year. This was the largest year-on-year increase since July 2011. Foreign currency prices of marine products rose by about 1.7% between months in October and had risen 8.3% year-on-year at that time.

In terms of relative consumer prices, the real exchange rate has risen each month for a year. It measured 98.1 points in November and was therefore nearly 21% above its 25-year average. It was up 12.2% year-on-year in the first eleven months of 2016, due primarily to a 11.2% nominal appreciation of the króna, but in addition, inflation in Iceland was 0.7 percentage points above the average among its trading partners.

The domestic real economy and inflation

According to preliminary figures published by Statistics Iceland in December, GDP growth measured 10.2% in the third quarter of the year. Domestic demand grew 9.6% year-on-year during the quarter. Of that total, consumption and investment grew by a total of 8.7%, whereas the contribution from inventory changes was positive during the quarter. Exports grew by 16.4%, while imports grew slightly more, or by 16.9%. For the first nine months of the year, GDP growth measured 6.2%, reflecting the offsetting effects of 9.3% in domestic demand and the negative contribution from net trade.

The revision of older data complicates any comparison with the Bank's forecast from November, as it involves reclassifying private consumption as services exports. GDP growth for the first nine months of the year measured 6.2%, some 1.2 percentage points more than had been forecast. If the reclassification of private consumption as exports is ignored, the greatest difference is that business investment grew somewhat more than projected during the period, or just over 34%, as opposed to 31% in the November forecast.

The current account balance was positive by 100.4 b.kr., or 15.3% of GDP, in Q3/2016. This is the largest surplus on external trade ever recorded in Iceland. The surplus for the quarter was due to a 121.6 b.kr. surplus on services trade and a 1.3 b.kr. surplus on primary and secondary income, which were offset by a 22.5 b.kr. deficit on goods trade. A revision of previously published figures shows a surplus of nearly 2 b.kr. more in the first half of the year, owing mainly to the aforementioned reclassification of private consumption to the services account surplus.

Even though the national accounts show that private consumption growth year-to-date was weaker than previously expected, it was robust, and indications of private consumption in the beginning of the fourth quarter suggest that it will remain so, although it may be less strong than it was early in the year.

The Gallup Consumer Confidence Index measured 133.2 points in November, some 15 points more than at the same time in 2015, but more than 11 points less than in October.

According to the results of Gallup's winter survey, carried out in November among Iceland's 400 largest companies, executives were slightly more pessimistic about the current economic situation than in the autumn survey, conducted in September, and considerably more pessimistic about the outlook six months ahead. After adjusting for seasonality, 78% of respondents considered current conditions good and just under 19% considered them neither good nor poor. About 59% of executives were of the view that conditions would remain unchanged (i.e., good) and about a fifth expected them to improve. Executives in all sectors were more pessimistic about the situation six months ahead than in the autumn survey, after adjusting for seasonality, and those in the fishing industry were most pessimistic. All respondents were more pessimistic than they were at the same time in 2015. Just over a fifth of executives were of the opinion that conditions would deteriorate over the next six months. Respondents were very upbeat about domestic demand, with 57% expecting it to increase in the next six months, adjusted for seasonality, although the number expecting an increase declined marginally from the autumn survey. Expectations about foreign demand were strong as well, with about 38% of respondents expecting an increase. This is a slight decline from the autumn survey, however.

According to the survey, firms interested in recruiting staff in the next six months outnumbered those planning redundancies by about 30 percentage points, adjusted for seasonality. This is a slightly lower percentage than in the autumn survey. The share is large in most sectors, or between 35% and 65% in manufacturing, transport, construction, and other services, but about 20% in retail and wholesale trade and 17% in financial services. In the fishing industry, however, the number of firms planning to recruit was equal to the number planning to downsize.

About 38% of firms considered themselves short-staffed in the winter survey, adjusted for seasonality. This percentage has fluctuated around 40% in the past three surveys. The share of construction firms considering themselves short-staffed increased by nearly 30 percentage points, to 83% in the winter survey.

The wage index rose by 0.3% month-on-month in October and by 10.4% year-on-year. Real wages in terms of the index had risen by 8.5% year-on-year in October.

The Statistics Iceland nationwide house price index, published at the end of November, rose by 1.7% month-on-month after adjusting for seasonality, and by 13.3% year-on-year. The capital area real estate price index, calculated by Registers Iceland, rose by 1.9% month-on-month in October, adjusted for seasonality, and by about 13.6% year-on-year. The number of purchase agreements registered nationwide rose by 8.9% year-on-year in the first ten months of 2016.

The CPI was unchanged month-on-month in November, for the second month in a row. Twelve-month inflation measured 2.1% and had risen from 1.8% since the MPC's November meeting. The rise in inflation was due to unfavourable base effects stemming from a steep drop in prices in November 2015. However, excluding the housing component, prices had fallen by 0.3% since November 2015. Most measures of underlying inflation suggested that it had been unchanged month-on-month in November, in the 2-2.5% range. Underlying inflation has therefore been somewhat closer to target than measured inflation has in the recent past.

The main driver of inflation in November was the rise in the cost of owner-occupied housing, with reduced food prices and a seasonal decline in international airfares pulling in the opposite direction. Private services prices had risen by 1.4% between years in November, after a 0.9% rise in October, owing largely to base effects.

Households' inflation expectations rose, according to the quarterly Gallup survey. Their one-year expectations were 3%, up from 2.5% in a comparable survey carried out in September.

Households’ two-year inflation expectations also rose by ½ a percentage point from the previous survey, to 3.5%. According to Gallup’s winter survey of corporate inflation expectations, respondents’ expectations were unchanged from the autumn survey, at 2%. However, indicators of reduced long-term inflation expectations could be seen in the breakeven inflation rate in the bond market, as the ten-year breakeven rate had lain in the 2.1-2.3% range thus far in Q4, as opposed to just over 2.5% in Q3. No new measurements of market agents’ inflation expectations were available, but according to the survey carried out in November, respondents expected inflation to average 2.8% over the next ten years, or 0.2 percentage points less than they expected in August.

II The interest rate decision

The Committee discussed developments in connection with capital account liberalisation and the Bank’s foreign exchange market intervention policy. It decided not to change the intervention policy but to review the situation at its next meeting, after the next step towards liberalisation of capital controls on individuals and firms had been taken.

Committee members discussed whether developments since the previous meeting had changed its assessment of whether the monetary stance was appropriate and whether the outlook had changed. At the November meeting, the Committee had decided to keep the Bank’s interest rates unchanged, even though the appreciation of the króna represented monetary policy tightening. The main grounds for the majority opinion within the Committee had been that uncertainty had increased, both domestically and abroad, and that strong demand growth argued for caution in interest rate setting.

The newly published national accounts for the first nine months of 2016 show stronger GDP growth than the Central Bank had forecast in November, but broadly similar growth in domestic demand. Committee members considered it positive that the composition of domestic demand was more favourable than had been forecast, in that business investment growth was stronger than projected and private consumption growth was weaker. They also observed that export growth had been a stronger driver of GDP growth than had been forecast, mainly because of robust services exports. In addition, the MPC noted that there had been a record current account surplus in the third quarter. The Committee agreed that current account balance figures for the third quarter of the year confirmed its assessment at the previous meeting: that the recent appreciation of the króna largely reflected trade surplus-related foreign currency inflows stemming from increased exports, tourism exports in particular.

The MPC noted that inflation had been in line with the Bank’s November forecast and with the Committee’s expectations at its previous meeting. It had measured 2.1% in November and had therefore remained below target for nearly three years in spite of large pay increases and rapid demand growth. In the Committee’s opinion, favourable external conditions and the appreciation of the króna had offset the effects of wage costs and domestic demand, while a tight monetary stance had also anchored inflation expectations, promoted saving, and contained credit growth.

The MPC discussed the monetary stance, which in terms of the Bank's real rate was virtually unchanged since the November meeting. The króna had appreciated further, however. As at the November meeting, Committee members were of the view that there were grounds for keeping interest rates unchanged and for lowering them by 0.25 percentage points. In taking the interest rate decision, the MPC gave consideration to the Bank's last forecast, and new information that had been published since the November meeting.

The main argument in favour of a rate reduction that was expressed at the meeting was that the króna had appreciated by 1½% since the Committee's last meeting. As a result, the exchange rate was already above the projected 2017 average according to the Bank's November forecast. Committee members were of the view that the medium-term inflation outlook had therefore probably improved even more than was assumed in the forecast. Some members were therefore of the opinion that there was scope to lower nominal interest rates, although various uncertainties mentioned at the time of the previous interest rate decision still existed. In view of the uncertainty, however, premises for signalling the probable near-term interest rate path were still lacking. Upcoming interest rate decisions would depend on developments, and as before, there were grounds for caution in rate setting. One argument in favour of a rate cut that had been expressed at the previous meeting was also expressed at this meeting: that it could be desirable to narrow the interest rate differential with abroad in order to encourage residents to invest abroad, as this could mitigate the underlying upward pressure on the króna. Among MPC members who supported a rate cut, it was also important for their risk assessment that the composition of GDP growth was more favourable than had been forecast in November, in that exports and business investment weighed more heavily.

The main argument in favour of unchanged interest rates that was expressed at the meeting was that there was still considerable uncertainty about near-term wage developments and about the fiscal stance. It was pointed out that, although the composition of domestic demand was more favourable than had been assumed in the November forecast, the national accounts indicated that year-2016 GDP growth would turn out even stronger than had been forecast, and the output gap would therefore be wider. It was also pointed out that there was the risk that lowering interest rates in order to narrow the interest rate differential with abroad during the current overheating of the domestic economy would undermine the recently achieved anchor for inflation expectations.

In view of the discussion, the Governor proposed that the Bank's interest rates be lowered by 0.25 percentage points, which would lower the key rate (the seven-day term deposit rate) to 5%, deposit rates (current account rates) to 4.75%, the seven-day collateralised lending rate to 5.75%, and the overnight rate to 6.75%. Four members voted in favour of the Governor's proposal and one voted against it, preferring to keep interest rates unchanged.

MPC members agreed that inflation expectations appeared more firmly anchored to the target than before and that the monetary stance had tightened somewhat because of the appreciation of the króna. In the view of the majority of Committee members, this gave the MPC scope to lower nominal interest rates now. Nevertheless, members were of the view that strong demand growth and the aforementioned uncertainties called for caution in interest rate setting. They agreed that in the coming term, the monetary stance would be determined by economic developments and actions taken in other policy spheres.

The following Committee members were in attendance:

Már Gudmundsson, Governor and Chairman of the Monetary Policy Committee

Arnór Sighvatsson, Deputy Governor

Thórarinn G. Pétursson, Chief Economist

Gylfi Zoëga, Professor, external member

Katrín Ólafsdóttir, Assistant Professor, external member

In addition, a number of Bank staff members attended part of the meeting.

Rannveig Sigurdardóttir wrote the minutes.

The next Statement of the Monetary Policy Committee will be published on Wednesday 8 February 2017.

9 September 2016
1609092

Report to the Government on inflation below the lower deviation limit

According to data published by Statistics Iceland on 26 August 2016, twelve-month inflation in terms of the consumer price index (CPI) was 0.9% in August. Measured inflation was therefore below 1%, the lower limit for the inflation target. According to the joint declaration issued by the Government and the Central Bank of Iceland on 27 March 2001, the Bank is to send a report to the Government if inflation deviates by more than 1½ percentage points from the target. These limits do not entail any other formal requirement vis-à-vis the Central Bank except to oblige the Bank to submit a report explaining the reasons for the deviation from the 2½% inflation target, estimating how long the deviation will endure and, as applicable, stating whether the Bank considers it necessary to take action in response to it.

Recent developments in inflation

At the end of 2014, inflation fell below the lower deviation limit of the inflation target for the first time since the target was adopted. The deviation was not long-lived, however, as inflation had moved back within the deviation band only three months later. Since then, and until recently, inflation has measured between 1½% and just over 2%; that is, below the target but within the deviation band. Inflation has now fallen for three months in a row, alongside the appreciation of the króna and low global inflation.

In terms of the CPI excluding the housing component, inflation has been much lower, or -0.9%, and has been below 1% ever since the beginning of 2015. It appears that underlying inflation has also been on the decline. Most measures that the Bank takes account of suggest that it ranged between 1.3% and 2.1% in August, about the same level as at year-end 2014, when measured inflation last fell below the lower limit. Underlying inflation then rose, as did measured inflation.

In the recent term, rising house prices have been the main driver of twelve-month inflation, and the year-on-year rise in the housing component of the CPI measured 7.3% in August. The contribution of domestic goods to twelve-month inflation has also increased. For example, domestic goods prices rose by 2.4% year-on-year in August. These domestic inflationary pressures have been offset by the appreciation of the króna, falling oil prices, and low global inflation. Prices of imported goods fell by 3.1% year-on-year in krónur terms in August, including a 9.7% drop in petrol prices. Other commodity prices have fallen as well. In Q2/2016, prices of non-oil commodities fell by nearly 12% year-on-year in krónur terms.

Furthermore, as is described in *Monetary Bulletin* 2016/3, published on 24 August, inflation expectations have been gradually declining and appear to be more firmly anchored to the target than before. For instance, at the beginning of 2012, market agents appeared to expect inflation to measure 4½% over the next ten years, but by the beginning of 2015 their ten-year expectations had subsided to 3%. Following the wage settlements that spring, inflation expectations rose temporarily but had fallen back to 3% by August 2016. The breakeven inflation rate in the bond market has developed similarly; it was 5% at the beginning of 2012 but had fallen to just over 3% by early 2015. It rose again as the year progressed, peaking at about 4.8% around the time the new wage settlements were concluded. Since then, it has fallen once again and had aligned with the target by early September.

The inflation outlook

The Central Bank published its last inflation forecast in *Monetary Bulletin* 2016/3. According to that forecast, inflation will average 1.2% in Q3/2016 and then rise to 2.2% in the fourth quarter of the year. The August inflation measurement, which was published a few days afterwards, is well in line with the Bank's most recent forecast. According to that forecast, inflation is quite likely to rise above the lower deviation limit soon, perhaps as early as next month.

As is described in *Monetary Bulletin* 2016/3, it appears that the strong improvement in terms of trade in recent years, low global inflation, the appreciation of the króna, and a tight monetary stance have largely contained the cost effects of the large wage increases negotiated in the recent past. However, if the króna does not appreciate further, its effects will gradually taper off as the forecast horizon progresses. According to the baseline forecast in *Monetary Bulletin*, inflation will be just over 3% by mid-2017 and will peak at 3.8% in the first half of 2018. It will then begin to ease again and is expected to fall below 3% during the first half of 2019. It is appropriate to emphasise that uncertainty about near-term exchange rate developments is greater than it has been in recent years because of the planned liberalisation of capital controls.

The Bank will release a new inflation forecast in *Monetary Bulletin* 2016/4, to be published on 16 November. That forecast will contain a detailed assessment of the economic and inflation outlook and the key risks to the forecast.

Monetary policy response

On 24 August, the Central Bank of Iceland Monetary Policy Committee (MPC) announced its decision to lower the Bank's key interest rate by 0.5 percentage points, from 5.75% to 5.25%. As is noted in the MPC statement, the Committee considers the inflation outlook to have improved even though demand pressures have begun to develop in the domestic economy. In view of favourable developments in inflation, an improved inflation outlook, and signs that long-term inflation expectations are more firmly anchored than before, the Committee is of the view that it can keep inflation at target over the medium term with lower interest rates than it had previously thought possible.

That notwithstanding, the Committee considers it necessary, as before, to maintain a relatively tight monetary stance so as to ensure price stability over the longer term. GDP growth is strong, and considerably above its long-term trend level. The output slack is considered to have disappeared in 2015, and a positive output gap has developed and is expected to continue growing until next year. Unemployment is now low in historical and international context, and a labour shortage has begun to emerge. Wage increases have been considerable, and well in excess of productivity growth. Unit labour costs have therefore risen sharply, and more than is consistent with 2½% inflation over the medium term. Nominal demand has also grown rapidly, and nominal GDP grew by more than 10% in 2015 and nearly 7% in H1/2016. Although the decline in inflation expectations gives hope of a firmer anchor, it has yet to emerge how susceptible long-term inflation expectations will be to temporary fluctuations in the exchange rate and inflation.

In this respect, conditions in Iceland are quite different from those in most other advanced economies, even though inflation rates are similar at present. Iceland's main trading partners have seen GDP growth levels well below expectations, and a pronounced slack still remains in most of them. And in many instances, wages have risen only modestly for a long time, which has been a drag on demand growth, among other things. These conditions, together with the current global deflationary pressures, have caused inflation to remain persistently below target in many trading partner countries. As a result, many central banks are concerned that inflation expectations will fall still further and will be below inflation targets for a protracted period. In Iceland, however, the economic recovery has been much more robust than in trading partner countries, wage costs have risen much more, the slack in output has disappeared and a positive output gap opened up, and inflation expectations have been above target until recently. All of this is reflected in higher interest rates in Iceland than in many neighbouring countries.

Nevertheless, in view of the improving inflation outlook and declining inflation expectations, the MPC considered it timely to lower the Bank's nominal interest rates in August, as the Bank's real rate had risen more than the Committee had assumed in June. Near-term developments in inflation and inflation expectations are highly uncertain, and large steps in the capital account liberalisation process lie ahead. As a result, it is not possible to make statements about the Committee's next steps.

The MPC's next interest rate decision will be published on 5 October 2016.

14 October 2016
1609092

Bjarni Benediktsson
Minister of Finance and Economic Affairs
Ministry of Finance and Economic Affairs
Arnarhvoll, Lindargata
150 Reykjavík

Re: Report to the Government on inflation below deviation limits

According to Statistics Iceland's CPI measurement as published on 26 August 2016, twelve-month inflation was 0.9% in August 2016 and had therefore fallen below 1%, the lower deviation threshold of the inflation target. With reference to the joint declaration of the Government and the Central Bank of Iceland, dated 27 March 2001, the Bank sent the Government a special report on 9 September, explaining the reasons for the deviation.

As the Minister is aware, it was revealed later that there was an error in Statistics Iceland's inflation measurements for the period from March through August 2016. According to the corrected figures, twelve-month CPI inflation was 1.2% in August; therefore, inflation did not fall below the 1% limit in August and it was therefore not necessary to submit the report last month.

Respectfully yours,
Central Bank of Iceland

Már Guðmundsson, Governor

cc:
Prime Minister

Monetary policy: achievements and review?

Már Guðmundsson, Governor of the Central Bank of Iceland. Monetary policy meeting of the Iceland Chamber of Commerce, held at Harpa in Reykjavík on 17 November 2016

Madame Chairman, honoured guests,

The Iceland Chamber of Commerce has a long-standing tradition of holding a meeting like this one on economic developments and prospects and monetary policy. The meeting is held following the publication of the Central Bank's autumn forecast and, in latter years, the Monetary Policy Committee's interest rate decision. In recent years, it has been the practice to select a particular topic for the meeting, and in keeping with this, today's topic is: Is independent monetary policy too costly? This departs somewhat from the contents of the Central Bank's *Monetary Bulletin* and current tasks of monetary policy, but I will touch on these towards the end of my speech today.

Yesterday the Bank published *Monetary Bulletin* 2016/4, which contained the Bank's new macroeconomic forecast, and announced the Monetary Policy Committee's interest rate decision. The big picture of the current state of the economy is that things have seldom been better. Icelanders have received a significant boost from improved terms of trade and growing goods and services exports, particularly due to strong growth in the tourism sector. It is this that underlies the vast increase in Icelanders' real income and the country's high employment level. In addition, Icelanders have proven more cautious this time than often before during an economic boom. Debt levels continue to fall, and the propensity to save is considerably stronger than has usually been the case during post-World War II upswings. This is probably due in part to greater caution in the wake of the financial crisis, but tight monetary policy has been a factor as well, by contributing to slower demand growth than would otherwise have been the case and by shifting a part of the steep rise in income and wealth towards saving. All of these factors have pulled together to create a better balanced economy than I have seen in my entire career. We have a handsome surplus on the current account of the balance of payments. Inflation has been below target for nearly three years in spite of large pay increases and strong demand growth. Positive supply shocks and the resulting currency inflows play a role here, and so does importation of labour. As a result, imported deflation and the appreciation of the króna have proven stronger than the inflationary pressures from the domestic labour market. Monetary policy has pulled in this direction as well, as I mentioned, and in a historically important development, inflation expectations are close to target by most if not all measures.

If this continues, monetary policy will have greater scope to mitigate the impact if positive developments give way to negative shocks. And according to the Bank's baseline forecast, the outlook is good: continued strong GDP growth and full employment; a current account surplus throughout the forecast horizon; the prospect that Icelanders will soon own more assets abroad than foreign nationals own in Iceland; and inflation at target for the entire period.

One can ask, in view of this, why some observers are so dissatisfied with monetary policy. I will discuss this in more detail later on. But there are significant risks, and we must be on the watch for them. There is an obvious risk of economic overheating. The labour market could spiral out of control. Economic policy mistakes could take place – for instance, if fiscal policy begins to pull too strongly in a different direction from monetary policy. We have seen the repercussions of this before.

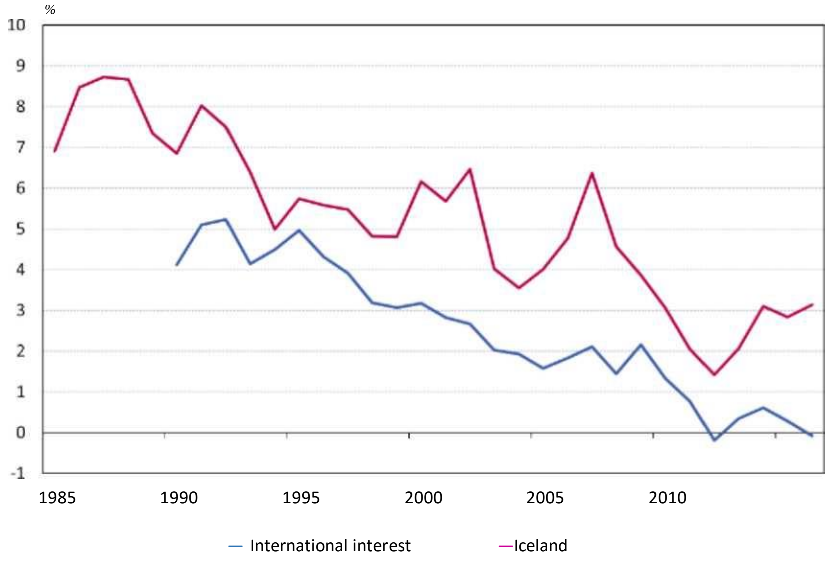
I will now turn to the main topics of my speech today: the level of interest rates in their long-term context, the foreign exchange market, and possible changes to the monetary policy framework.

Level of interest rates

During the run-up to the recent Parliamentary elections, there was considerable discussion of the level of interest rates in Iceland. If we are to come to a sensible conclusion on whether the nominal interest rate set by monetary policy is appropriate or not in terms of inflation, inflation expectations, the business cycle, a plausible estimate of the equilibrium real rate, and foreign interest rates, it is important that the discussion be based on facts. When we consider the interest rates that are most important for households and businesses – i.e., longer-term real interest rates rather than the rates decided directly by the Bank – it is also important to realise to what extent monetary policy can affect those rates. The answer to this is that monetary policy only has a short-term impact on long-run real rates that are ultimately determined by underlying economic fundamentals, not least the interactions between the propensity to save and the impetus to invest.

Let us now examine a few facts of importance in this context. First, it should be noted that international long-term real rates have been falling over the past three decades, as can be seen in Chart 1.

Chart 1: Real long-term Treasury rates on price indexed bonds 1985-2016



Rates on indexed long-term Treasury bonds (5-10 years). International interest rates are the simple average of rates for the US (from 1999), the UK, and Germany. The Icelandic data are compiled from data on initial offerings of Treasury savings bonds and yields on Housing Financing Fund bonds and indexed Treasury bonds. The figure from 2016 is the average through mid-November.
Sources: Bank of England, US Federal Reserve Bank, Central Bank of Iceland.

This development began long before the financial crisis. The crisis, the ensuing economic contraction, and the monetary easing in response to the crisis amplified this tendency still further, and long-term real rates are now at an absolute historical low. In part, this is related to the business cycle position in larger advanced countries and could turn around in coming years. However, it is unlikely that the decline in real rates over the past few decades will reverse to any large degree in the near future.

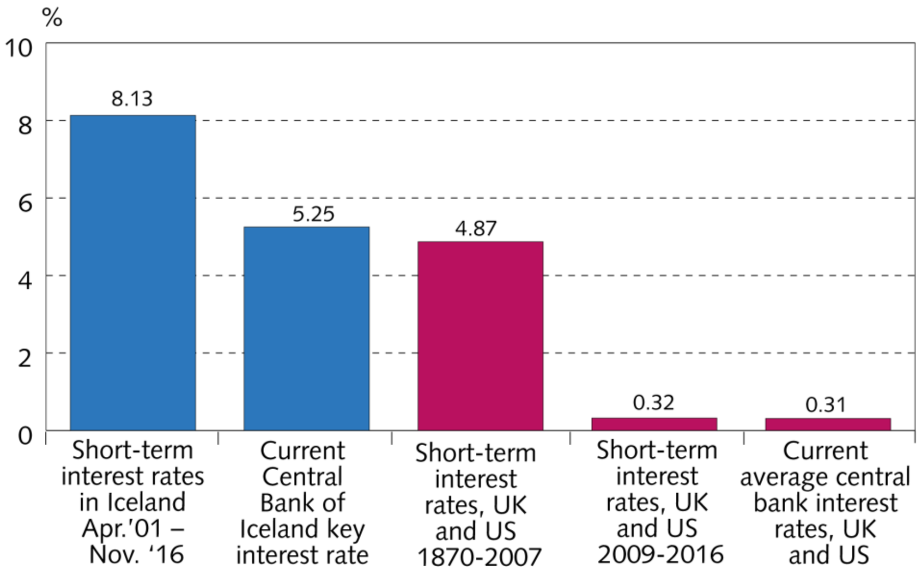
One of the main theories in conventional economics is that monetary policy cannot affect real variables – including long-term real interest rates – except temporarily. Although this is something of a simplification, and it is possible that monetary policy that is either far too tight or far too loose over a long period could have more of an impact than this, particularly in an economy with major imbalances, the theory is nevertheless a close enough approximation under normal circumstances to take account of it here. The period under scrutiny is too long for monetary policy to have had a substantial impact on developments. Furthermore, it is clear that the tendency to cut interest rates is not limited to individual countries; it is an international pattern, although it surfaces to varying degrees in different countries. Therefore, the explanations will most likely be found in factors affecting the propensity to save, the willingness to invest, and weaker growth in potential output globally. All three of these have contributed to lower real rates over this period, although reduced growth in potential output might be more recent. The aging of the population, increased public saving in emerging countries (including the accumulation of foreign exchange reserves), and increased income inequality within countries are among the factors that have contributed to the increase in the propensity to save. Declining relative prices of investment products and increased uncertainty and risk aversion, particularly during the aftermath of the crisis, have negatively affected the willingness to invest.

But how does Iceland fit into this picture? As Chart 1 indicates, developments here have been similar, although interest rates have been – and still are – higher than in larger industrialised countries. This is quite at odds with what could be expected based on some of the discussion taking place in Iceland. The fact is that long-term real rates in Iceland are currently at their lowest for this entire period, apart from a short time in the midst of the economic crisis, when the real policy rate was held very low so as to stimulate the economy and presumably pulled longer-term rates downwards for a while.

I have said that monetary policy had little to do with these developments. This does not change the fact that these developments have affected monetary policy, as they reflect in part the decline in short-term equilibrium real interest rates. Monetary policy has therefore responded to this with lower nominal interest rates than would otherwise have been appropriate. Nominal rates have fallen even further during this period, for three reasons. First of all, inflation and inflation expectations were brought to target levels in major industrialised countries in the last two decades of the 20th century; therefore, it was not necessary to keep nominal and real rates as high as before. It could be said that the same development has taken place here in Iceland in the recent term. Second, global deflationary tendencies have been strong in recent years, following the inclusion of China and Russia in the global trading system and due to technological advances and developments in international production and value chains. Third, a pronounced economic slack in major industrialised countries after the financial crisis has led to much more accommodative monetary policy than would otherwise have prevailed in those countries. All of these factors combined have contributed to the current situation, where nominal central bank rates in leading industrialised economies are extremely low in historical terms. Actually, many observers consider them dangerously low as regards their potential impact on financial stability and the efficacy of the financial system.

What about Iceland in this context? The Central Bank's key rate is the interest rate that determines short-term market rates at any given time. In the recent past, this has been the rate on seven-day term deposits, which is now 5.25%, as Chart 2 indicates. It is far below the average for the period since the adoption of the inflation target in late March 2001, in spite of the significant tension in the economy. This is a reflection of the progress made in the recent term in bringing inflation expectations to target. The Bank's key rate has been slightly lower on two occasions since the adoption of the inflation target: in early 2011 and in early 2015. It peaked at 18% in late 2008. It is therefore incorrect to say that the Bank's key rate is always high, no matter what the economic situation. Nor is it appropriate to say that the Bank's interest rates are off the charts in the context of Iceland's economic history: quite the contrary.

Chart 2: Icelandic and international short-term nominal interest rates in historical context



Sources: Jorda, O., M. Schularick, and A. M. Taylor (2014). "The great mortgaging:Housing finance, crises, and business cycles", National Bureau of Economic Research, NBER *Working Paper* Series, no. 20501, Central Bank of Iceland.

It is also interesting to compare domestic interest rates with historical interest rates in developed countries. The chart shows that the average of short-term nominal interest rates in the US and the UK was slightly below 5% over the period from 1870 through 2007. This is not far from the short-term nominal rate in Iceland at present, and it should be noted that we are in that part of the economic cycle where the output gap is positive, whereas the business cycle tends to average out over such a long period as is shown in this chart. However, post-crisis interest rates in these countries are far below their previous historical low and therefore much more “off the charts” than Iceland’s. There could be sound reasons for this, although opinion is divided on the matter.

Let us examine Iceland’s current interest rates more closely, ignoring for the moment the problems associated with pursuing independent monetary policy in small, open economies with unrestricted capital flows, which I will mention later. Let us also assume that inflation expectations remain at target, as they are at present. The question of whether or not a nominal policy rate of 5.25% is appropriate then centres on what is considered to be the equilibrium real policy rate; i.e., the interest rate that would keep inflation at target when the economy is in balance. With inflation expectations at 2½%, the real policy rate is currently just over 2½%. Before the financial crisis, the equilibrium policy rate was estimated to be quite a bit higher. As is the case elsewhere, it has probably fallen in the wake of the crisis. Furthermore, recent success in monetary policy may mean that we do not need as high an interest rate as before to keep inflation at target. We do not know how much the equilibrium rate has fallen, although the subject has been under close scrutiny within the Bank and has been discussed repeatedly at Monetary Policy Committee meetings. The newest research on the assessment of the equilibrium real rate will be presented at a seminar held at the Central Bank on 29 November.

Perhaps there will be scope in the future to lower the short-term real rate as measured by inflation expectations somewhat further. This will depend on developments, including exchange rate developments and the stance of other economic policies. In addition, nominal interest rates could change in response to developments in inflation and inflation expectations. Under current conditions, however, it must be borne in mind that the economy is not in balance but in the boom part of the cycle. Furthermore, the contribution from other economic policies is uncertain at the moment because a new Government has yet to be formed after the Parliamentary elections and next year’s fiscal budget proposal has yet to be presented. Moreover, it is too early to say what the impact of capital account liberalisation is. One thing is certain, however: if steep interest rate cuts are made without being warranted by economic conditions, it is clear that the real rate would decline for a while. But because credibility would undoubtedly suffer as a result of poorly grounded measures of this type, it would have to rise again, to a higher level than before, and for a longer period than would otherwise have been needed to bring inflation and inflation expectations back down to target.

Is it a lost cause, then, that Iceland’s interest rates might with time become similar to those in trading partner countries? Not at all. First, we must hope, for their sake, that neighbouring countries will not need to maintain such abnormally low interest rates for the long term. Second, the longer we keep inflation expectations at target, maintain a current account surplus, and continue to pay down debt, the more the risk premium component of interest rates and the equilibrium real rate in Iceland will continue to fall. The current propensity to save, adjusted for the business cycle position, is much greater than it has been for quite a while, and over time, it will contribute to a reduction in the long-term equilibrium real rate. If inflation expectations remain at target, both nominal and real rates will decline accordingly.

Exchange rate of the króna and Central Bank foreign currency purchases

Responding to the recent strong inflows into the foreign exchange market is one of the Central Bank's most complex tasks at present. The problem lies, among other things, in distinguishing between short-term inflows, which are only loosely connected to economic fundamentals and are much more likely to stop suddenly or even reverse, and inflows that reflect more lasting positive changes in fundamentals, although these can change for the worse as well. It can be argued that, other things being equal, there should be more foreign exchange market intervention in the former instance and less in the latter.

While the foreign exchange reserves were being increased to the desired size during the prelude to general capital account liberalisation, this distinction was less important for policy responses than it is now, as the premises were in place to buy the inflows and top up the reserves, more or less irrespective of the origins of the inflows. Carry trade-related inflows into the bond market did cause some disruption of monetary policy transmission in summer 2015 and last winter and could have posed risks for financial stability further ahead. For this reason, and also to prevent the development of a new "overhang" following the offshore króna auction in June 2016, it was considered appropriate to take action to mitigate these inflows. Since then, they have largely stopped. However, there has been no let-up in foreign currency inflows in recent months, and by the end of last week, the Central Bank had bought foreign currency in the amount of 160 b.kr. since the beginning of July and the exchange rate had risen by nearly 12% over that same period.

The available data indicate that foreign currency inflows are to a large extent related to the trade surplus, which has been quite large, owing partly to growth in tourism and positive terms of trade, plus foreign investors' increased interest in direct investment in the Icelandic economy. The banks' and other Icelandic firms' improved access to foreign credit could play a role as well. On the other hand, speculative flows related to the interest rate differential appear to account for only a small part of the inflows. Another important factor is that liberalisation-related outflows are still limited. It should be noted, though, that balance of payments figures for Q3/2016 could change the picture somewhat, but they will not be available until the beginning of next month.

The Central Bank has bought a smaller share of foreign exchange inflows in the recent past than it did earlier in the year, and the króna has appreciated more as a result. This is because the foreign exchange reserves are larger and somewhat above the recommended minimum for liberalisation of the capital controls. The nature of the inflows is important, as is the view that if the currency appreciates due to a rise in the equilibrium real exchange rate, this is part of the desirable countercyclical role of the exchange rate; furthermore, it is not desirable to disconnect the exchange rate channel of monetary policy transmission entirely. Nevertheless, the foreign currency purchases have been substantial, based on precautionary principles concerning the durability of the inflows and attempts to prevent excessive appreciation of the currency in advance of liberalisation-related outflows.

In the wake of the Central Bank’s large foreign currency purchases this year, the question has arisen whether large foreign exchange reserves are a problem in and of themselves; i.e., whether they jeopardise the Bank’s finances to such a degree that they could undermine its ability to pursue appropriate monetary policy at any given time. We do not have time to explore this in depth here, but the short answer is: no, they are not. First of all, we must not focus only on the cost of financing the reserves; we must also consider the benefits associated with them. Second, in assessing the current size of the reserves, it is important to bear in mind that the impact of general liberalisation of capital controls seems, fortunately, to come to the fore gradually, although this does not mean that it couldn't become significant going forward. Large reserves generate confidence during this process. Third, we should not project current conditions to the infinite future and therefore come up with a huge problem. The monetary stance changes over the course of the business cycle, as is normal, and the interest rate differential with abroad varies from one point in time to another. Furthermore, there are fluctuations in foreign currency flows and exchange rates, and the opportunity could arise later to sell off a portion of the reserves so as to mitigate these fluctuations and generate revenues to offset the current cost of the reserves.

None of this changes the fact that we must always think in terms of reducing the cost of financing the reserves. Larger reserves provide for the possibility of placing a portion in riskier investments that could generate larger returns, as many central banks in a similar position have done in recent years. It is also possible that, in addition to the distribution of the costs and benefits of the reserves, which is built into the current regulatory framework for the financial interactions between the Treasury and the Central Bank, ways could be found for banks and even other financial institutions to participate in the cost of financing the reserves, as these institutions enjoy the benefits of them, including better credit ratings and lower foreign financing costs. The worst that we could do in this context would be to sacrifice the long-term benefits of price stability and economic equilibrium in order to increase the Central Bank's profits in the short-term.

The monetary policy framework

I would now like to turn to two related topics: the pros and cons of independent monetary policy, on the one hand, and possible changes to the monetary policy framework and implementation, on the other. I must be brief because the clock is ticking, but I am more than willing to answer questions about this and other points later on.

"Is independent monetary policy too costly?" is the topic of this meeting. Presumably, the question implied is whether the benefits of such monetary policy are outweighed by the costs. To my mind, this question can hardly be answered without reference to the various options available because we must have some sort of currency regime, and all of them have pros and cons. If there is a currency union, it is the monetary policy of the union's central bank that carries the day. In the case of the eurozone, that is the European Central Bank. The pros and cons of such cooperation were outlined in detail in a report published by the Central Bank in autumn 2012, and I do not have time to cover them here.[1] If we continue with our own currency, the question of exchange rate policy arises: should the króna be pegged against one currency or a basket of currencies, should it float freely, or should it be somewhere in between? If the exchange rate is pegged, it is not possible to apply monetary policy to mitigate economic fluctuations by responding to shocks. The adjustment will therefore take place more through fluctuations in employment and output and less through fluctuations in real wages than is the case with independent monetary policy and a flexible exchange rate. What do we want in this context? A good stylised example of how independent monetary policy and a flexible exchange rate could mitigate the impact of shocks on employment and output can be found in the most recent issue of *Monetary Bulletin*, which describes what would happen if the past few years' improvement in terms of trade should reverse with

[1] http://www.cb.is/publications-news-and-speeches/publications/special-publications/special-publication-7/

a reduction in marine product prices.[2]

There are many things to consider in this respect. Experience shows that in small, open economies with unrestricted capital flows and a free-floating currency, the exchange rate has a tendency to fluctuate excessively and irregularly, with possible negative implications for financial stability. And as is discussed in the aforementioned Central Bank report, such exchange rate volatility can sometimes be a source of economic volatility. Furthermore, as examples have shown, lack of fiscal discipline together with overly loose financial regulation and lax supervision can undermine independent monetary policy with either a floating or a fixed exchange rate, even if the latter takes the form of a currency board.

The "capital flow problem", as we could call it, lies in capital inflow surges based on excessive optimism and underpricing of risk – capital inflows that then stop and reverse, with fire and brimstone and severe repercussions for economic and financial stability. Experience shows that this problem is not limited to countries with a floating exchange rate – quite the contrary, in fact. Countries with a pegged exchange rate have suffered severely from just such a scenario, as have countries within the euro area. This problem was a key player in the crises in Greece and Spain, to give two examples. As a consequence, there is no less need for so-called macroprudential tools in countries with a pegged exchange rate or countries in a currency union than there is in countries with independent monetary policy and a floating currency. Some view foreign exchange reserves as the cost of pursuing independent monetary policy. This is not entirely correct because any country with its own currency must hold foreign exchange reserves, and it is easy to demonstrate that the reserves must be larger under a pegged exchange rate than under a floating exchange rate.

I could continue to beat the drum on simplifications and magic solutions. The main thing, though, is that selecting a currency and monetary policy regime is not as simple as it is sometimes made out to be. And it is not merely a question of which policy is best if implemented perfectly – because implementation is never perfect. Mistakes are made, and then it matters how robust the systems are in the face of such mistakes, and what scope there is to correct them without overstraining the systems.

[2] *Monetary Bulletin* 2016/4, p. 12-14.
http://www.cb.is/publications/publications/publication/2016/11/16/Monetary-Bulletin-2016-4/

Conclusion

In view of the discussion of monetary policy that has taken place recently – not least during the run-up to the Parliamentary elections – I consider it necessary to engage in continued thoughtful discussion of what type of monetary policy framework will be most appropriate once the capital controls have been lifted, as we are not members of a currency union. Many attempts have been made in this regard, and the Central Bank has published a range of material on the topic. In my opinion, the monetary policy that has been developing in Iceland during the aftermath of the crisis – a monetary policy framework that is quite unlike its pre-crisis counterpart – has delivered good results in the recent past and is a viable candidate for the future. But perhaps it is like Groundhog Day: with each new beginning, we come closer to the solution. Let us hope so.

If we play our cards right, the benefits of independent monetary policy could outweigh the costs. That does not necessarily mean that it is the best of all possible options. Some type of peg is also a possibility that could be explored, although it, too, has pros and cons, like all others. The Swedes raised their policy rate to a high double-digit figure in order to defend their peg, and at one point the policy rate was raised to 500%. The British raised their interest rates to 15% for the same reason. In neither instance was this sufficient, however, because other foundations were no longer in place. Hong Kong managed to defend its peg during the Asian crisis but had to raise rates significantly and resort to a range of unconventional measures, including large-scale intervention in the equity market.

The main conclusion is that neither a pegged exchange rate nor independent monetary policy with a flexible exchange rate will generate the intended results unless several other things are in place: policy instruments designed to achieve those results must be applied as needed, other economic policies should be aligned with monetary policy objectives, and prudential policy regarding the financial sector must support rather than undermining economic stability.

Seðlabanki Íslands

Staða og horfur í efnahagsmálum

Fyrirlestur hjá Félagi atvinnurekenda

30. ágúst 2016

Þórarinn G. Pétursson, aðalhagfræðingur Seðlabanka Íslands

Þær skoðanir sem hér koma fram þurfa ekki að endurspegla skoðanir annarra nefndarmanna Peningastefnunefndar

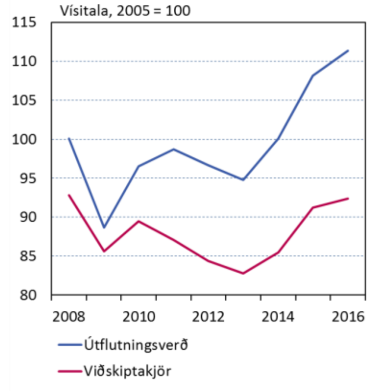
Félag atvinnurekenda

Staða og horfur í efnahagsmálum

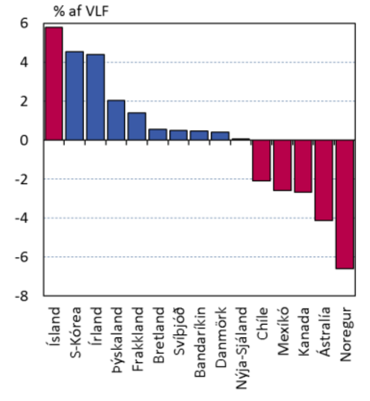
Viðskiptakjör batna og gengi krónu hækkar

- Viðskiptakjör hafa batnað töluvert: útflutningsverð hefur hækkað í hlutfalli við útflutningsverð viðskiptalanda og olíu- og hrávöruverð lækkað: áætlað að í ár hafi viðskiptakjör batnað um 11½% frá 2014 og útflutningsverð hækkað um 17½% …
- … mun meiri viðskiptakjarabati en meðal annarra iðnríkja – sérstaklega þegar horft er til annarra hrávöruútflytjenda
- Gengi krónu einnig hækkað mikið: er 14% hærra en fyrir ári – raungengi hefur því hækkað töluvert

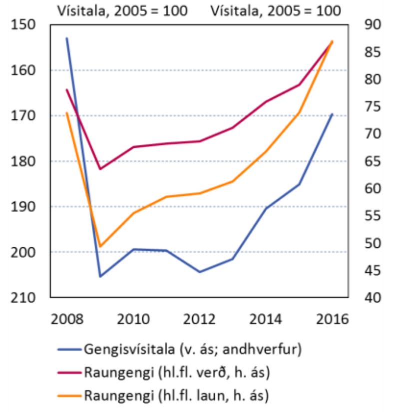
Útflutningsverð og viðskiptakjör 2008-2016[1,2]



Viðskiptakjaraáhrif í 15 OECD-ríkjum 2014-2015[3]



Gengi krónunnar 2008-2016[2]

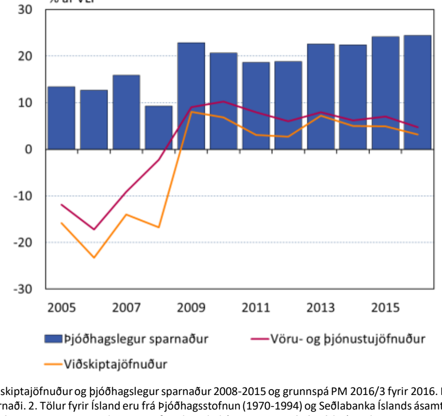


1. Útflutningsverð Íslands í hlutfalli við útflutningsverð helstu viðskiptalanda (fært í sama gjaldmiðli með vísitölu meðalgengis). 2. Grunnspá PM 2016/3 fyrir 2016. 3. Mismunur kaupmáttar útflutnings og útflutningsmagns í hlutfalli af VLF fyrra árs. Samtals áhrif fyrir árin 2014-2015. Þau lönd sem eru flokkuð sem hrávöruútflytjendur miðað við vægi hrávöru í hreinum útflutningi eru táknuð með rauðlitum súlum.
Heimildir: Hagstofa Íslands, Macrobond, OECD, Sameinuðu Þjóðirnar (UNCTAD), Seðlabanki Íslands.

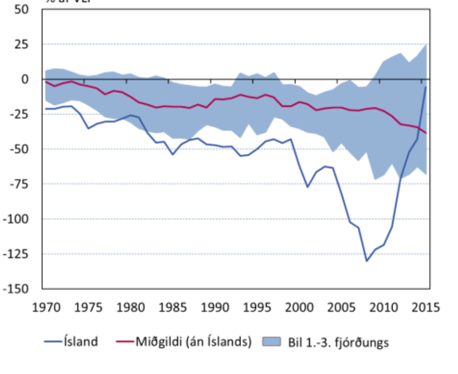
Viðvarandi viðskiptaafgangur og stórbætt ytri staða

- Viðskiptaafgangur mældist 4,9% af VLF í fyrra og spáð 3% afgangi í ár … þjóðhagslegur sparnaður hefur einnig aukist töluvert
- Erlend staða hefur stórbatnað með viðvarandi viðskiptaafgangi og nýlegu uppgjöri slitabúa: var -5,7% af VLF í árslok 2015 en var verst -130% 2008 – besta staða í hálfa öld og með því hagstæðasta sem mælist meðal þróaðra ríkja
- Stór hluti hækkunar raungengis endurspeglar því líklega hækkun jafnvægisraungengis

Viðskiptajöfnuður og vergur þjóðhagslegur sparnaður 2005-2016[1]



Hrein erlend staða í 30 þróuðum ríkjum 1970-2015[2]

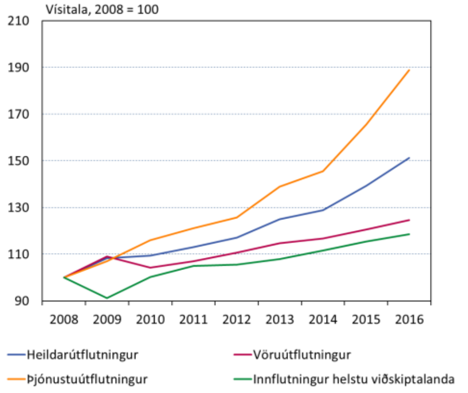


1. Undirliggjandi viðskiptajöfnuður og þjóðhagslegur sparnaður 2008-2015 og grunnspá PM 2016/3 fyrir 2016. Eftir uppgjör slitabúa fallinna fjármálafyrirtækja í árslok 2015 er ekki lengur munur á mældum og undirliggjandi viðskiptajöfnuði og þjóðhagslegum sparnaði. 2. Tölur fyrir Ísland eru frá Þjóðhagsstofnun (1970-1994) og Seðlabanka Íslands ásamt Hagstofu Íslands (1995-2015) þar sem miðað er við undirliggjandi stöðu 2008-2014. Tölur fyrir hin ríkin eru frá gagnagrunni Lane og Milesi-Ferretti fyrir tímabilið 1970-2011 en gögn þeirra eru framlengd til ársins 2015 miðað við þróun skv. IFS-gagnagrunni Alþjóðagjaldeyrissjóðsins.
Heimildir: Alþjóðagjaldeyrissjóðurinn, Hagstofa Íslands, Lane og Milesi-Ferretti (2007), Þjóðhagsstofnun, Seðlabanki Íslands.

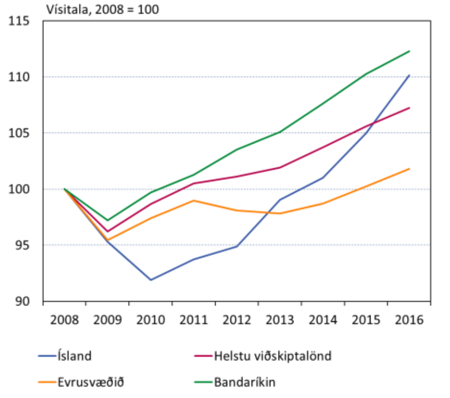
Kröftugur útflutningur og vaxandi efnahagsumsvif

- Útflutningur hefur vaxið hratt undanfarið – þrátt fyrir hægan vöxt eftirspurnar í helstu viðskiptalöndum: borinn upp af miklum þjónustuútflutningi sem hefur vaxið um 9½% að meðaltali sl. 5 ár
- Meiri hagvöxtur hér en í viðskiptalöndum: meðalhagvöxtur 2012-2016 3,3% hér á landi en einungis 1,3% í viðskiptalöndum: samdrátturinn í kjölfar kreppunnar endurheimtur: VLF 10% hærri í ár en var fyrir fjármálakreppuna

Útflutningur og eftirspurn viðskiptalanda 2008-2016[1]



Landsframleiðslan á Íslandi og í helstu viðskiptalöndum 2008-2016[1]

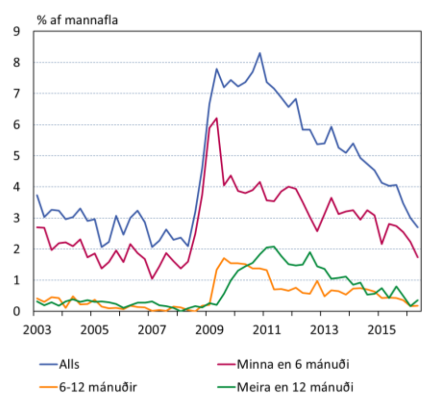


1. Grunnspá PM 2016/3 fyrir 2016.
Heimildir: Hagstofa Íslands, Macrobond, Seðlabanki Íslands.

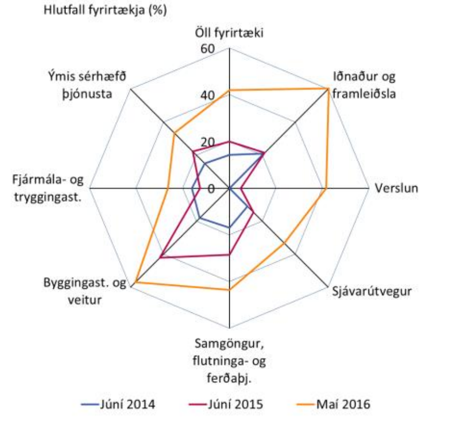
Atvinnuleysi minnkar og vaxandi skortur á vinnuafli

- Atvinnuleysi var 2,7% á Q2/2016 (árstíðarleiðrétt) og minnkaði um 1,3pr frá fyrra ári – langtímaatvinnuleysi er jafnframt nánast horfið: náði hámarki í um 2% snemma árs 2011 en var 0,4% á Q2
- Störfum fjölgar hratt og æ skýr merki vaxandi skort á vinnuafli: yfir 40% fyrirtækja segjast búa við skort – hlutfallið hefur hækkað hratt í öllum atvinnugeirum

Atvinnuleysi eftir lengd[1]
1. ársfj. 2003 - 2. ársfj. 2016



Fyrirtæki sem telja að skortur sé á starfsmönnum
Hlutfall fyrirtækja (%)

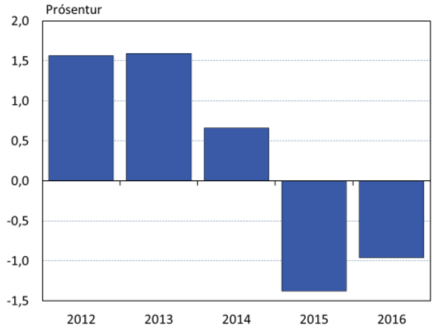


1. Árstíðarleiðrétt gögn.
Heimildir: Hagstofa Íslands, Seðlabanki Íslands.

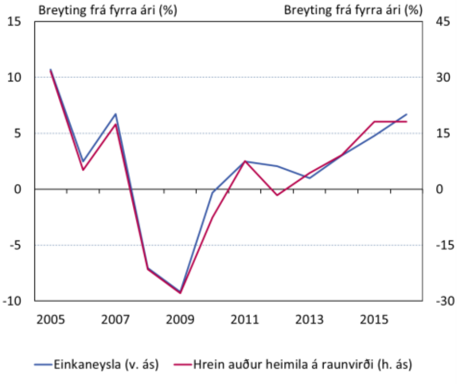
Ríkisfjármál og bætt fjárhagsstaða auka einnig á eftirspurn

- Efnahagsbati hefur verið drifinn áfram af miklum tekjuvexti sem m.a. má rekja til kröftugs útflutningsvaxtar og viðskiptakjarabata … en nokkur slökun á aðhaldsstigi ríkisfjármála bætist einnig við
- Þar að auki áhrif skuldalækkunaraðgerðar sem hefur leitt til mikillar hækkunar á hreinum auði heimila sem hefur með mikilli hækkun ráðstöfunartekna leitt til kröftugs vaxtar einkaneyslu

Breyting á hagsveifluleiðréttum frumjöfnuði ríkissjóðs 2012-2016[1]



Einkaneysla og hreinn auður heimila 2005-2016[2]

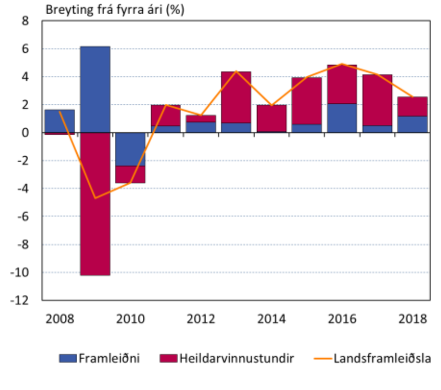


1. Frumjöfnuður er leiðréttur fyrir einskiptis tekjum og gjöldum (t.d. arðgreiðslum og flýtingu niðurgreiðslu verðtryggðra húsnæðislána). Grunnspá PM 2016/2 fyrir 2016. 2. Hreinn auður er samtala húsnæðis- og fjárhagslegs auðs heimila (utan lífeyrissjóðsréttinda) að frádregnum skuldum heimila. Grunnspá PM 2016/3 fyrir 2016.
Heimildir: Alþjóðagjaldeyrissjóðurinn, Fjársýsla ríkisins, Hagstofa Íslands, Seðlabanki Íslands.

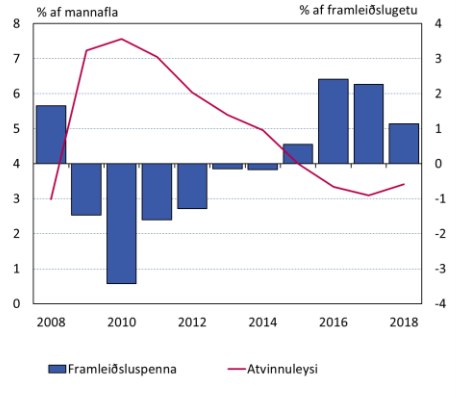
Mikill hagvöxtur og vaxandi spenna í þjóðarbúinu

- Hagvöxtur í fyrra var 4% og horfur á tæplega 5% hagvexti í ár og um 4% á næsta ári: á bak við þennan kröftuga hagvöxt er mikil fjölgun starfa en framleiðnivöxtur hefur verið lítill og nokkru undir langtímameðaltali
- Samhliða miklum hagvexti hefur slakinn í þjóðarbúinu horfið og framleiðsluspenna myndast – sem m.a. kemur fram mikilli lækkun atvinnuleysis sem er líklega komið undir það atvinnuleysisstig sem samrýmist langtímajafnvægi

Hagvöxtur og framleiðni 2008-2018[1,2]



Atvinnuleysi og framleiðsluspenna 2008-2018[1]

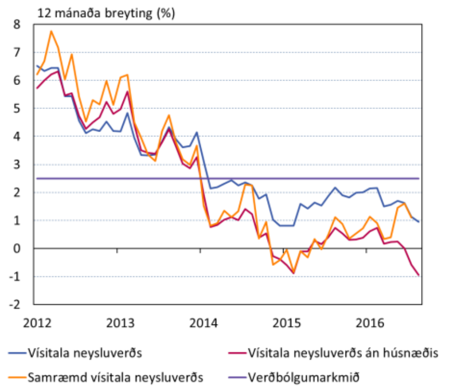


1. Grunnspá PM 2016/3 fyrir 2016-2018. 2. Framleiðni mæld sem hlutfall landsframleiðslu og heildarvinnustunda.
Heimildir: Hagstofa Íslands, Seðlabanki Íslands.

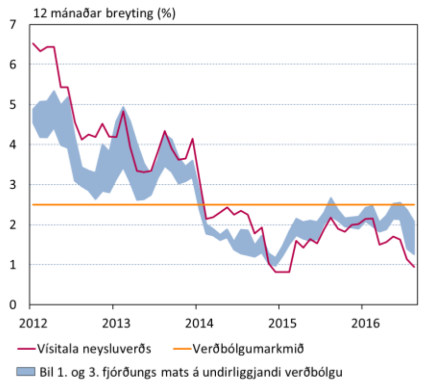
Verðbólga minnkar á ný og nálgast fyrra lágmark

- Verðbólga mældist 0,9% í ágúst og minnkaði úr 1,1% í júlí og hefur ekki verið svo lítil síðan í febrúar 2015 … án húsnæðis mælist hún enn minni eða -0,9% og minnkaði úr -0,6% í júlí – en hefur aukist úr 0,4% í apríl í 1,1% í júlí skv. HICP
- Undirliggjandi verðbólga hefur einnig minnkað: flestir mælikvarðar á bilinu 1,3-2,1% í ágúst
- Viðskiptakjarabati, lítil alþjóðleg verðbólga, hækkun gengis og aðhaldssöm peningastefna vega á móti áhrifum launahækkana

Ýmsir mælikvarðar á verðbólgu
Janúar 2012 - ágúst 2016



Mæld og undirliggjandi verðbólga[1]
Janúar 2012 - ágúst 2016

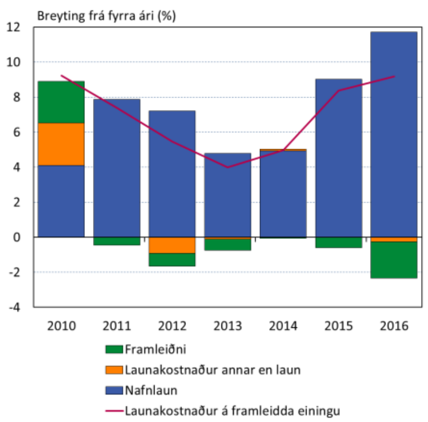


1. Skyggða svæðið inniheldur bil 1. og 3. fjórðungs mats á undirliggjandi verðbólgu þar sem hún er mæld með kjarnavísitölum sem horfa fram hjá áhrifum sveiflukenndra matvöruliða, bensíns, opinberrar þjónustu og reiknaðrar húsaleigu og með tölfræðilegum mælikvörðum eins og vegnu miðgildi, klipptum meðaltölum og kviku þáttalíkani.
Heimildir: Hagstofa Íslands, Seðlabanki Íslands.

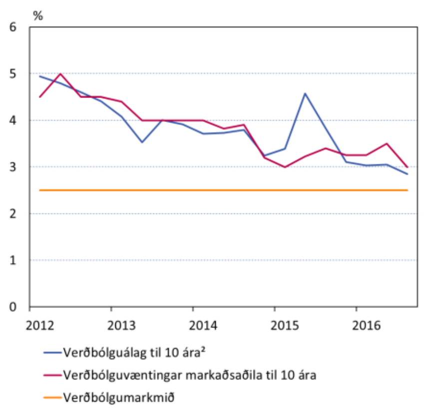
Miklar launahækkanir en kjölfesta væntinga heldur

- Miklar launahækkanir undanfarið eru langt umfram framleiðnivöxt og því hefur launakostnaður á framleidda einingu hækkað mikið: horfur á ríflega 9% hækkun í ár og 6½% hækkun yfir 5 ára tímabil
- Á móti vegur að langtímaverðbólguvæntingar hafa farið lækkandi undanfarin ár – og tekið að lækka á ný eftir tímabundna hækkun í kjölfar nýlegra kjarasamninga – kjölfesta verðbólguvæntingar virðist halda og hafa styrkst

Launakostnaður á framleidda einingu og framlag undirliða 2010-2016[1]



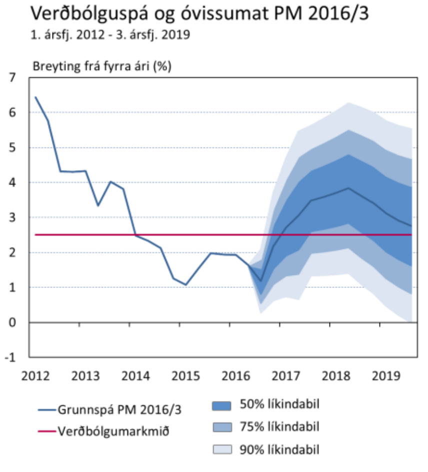
Langtímaverðbólguvæntingar
1. ársfj. 2012 - 3. ársfj. 2016

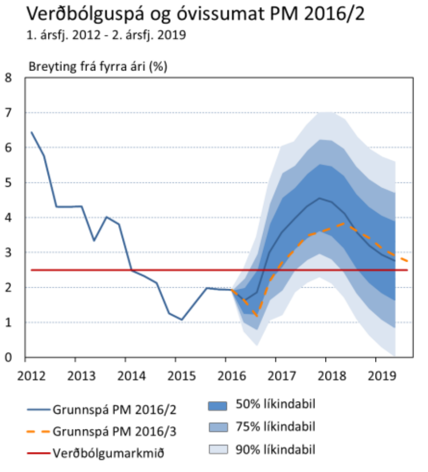


1. Framleiðniaukning kemur fram sem neikvætt framlag til hækkunar á launakostnaði á framleidda einingu. Grunnspá PM 2016/3 fyrir 2016. 2. Talan fyrir þriðja ársfjórðung 2016 er meðaltal það sem af er fjórðungnum.
Heimildir: Hagstofa Íslands, Seðlabanki Íslands.

Verðbólguhorfur batna töluvert frá fyrri spá

- Verðbólga minnkaði úr 1,9% á Q1 í 1,6% á Q2 – spáð að verði 1,2% á Q3 en aukist á ný þegar áhrif gengishækkunar taka að fjara út: verði 2,2% á Q4 og nái hámarki í 3,8% Q2/2018 en taki síðan að hjaðna í markmið
- Horfur hafa batnað töluvert frá PM 16/2: hærra gengi, minni alþjóðleg verðbólga, meiri framleiðnivöxtur og traustari kjölfesta verðbólguvæntinga skýra bættar horfur – verðbólga tæplega 1pr minni en spáð var í PM 16/2 út næsta ár





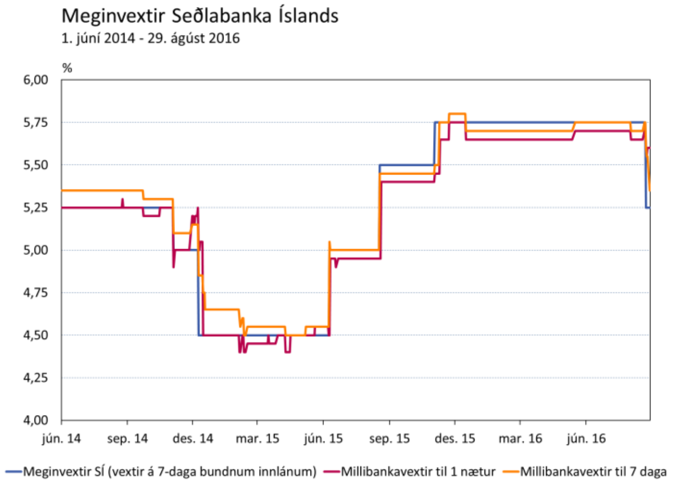
Heimildir: Hagstofa Íslands, Seðlabanki Íslands.

Félag atvinnurekenda

Peningastefnan

Tekist hefur að halda verðbólgu í skefjum

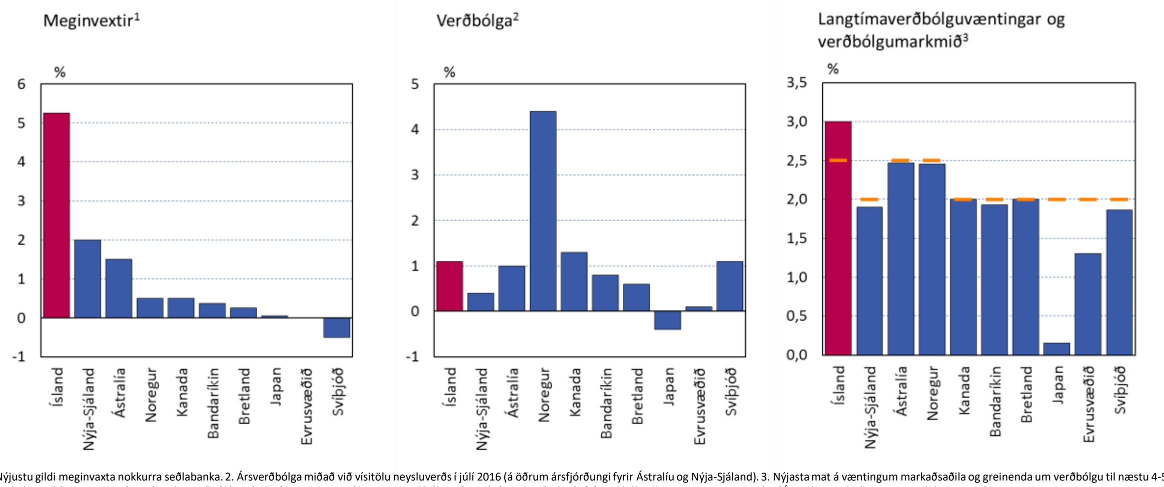
- Brugðist við aukinni verðbólguhættu með hækkun vaxta sem hélt aftur af eftirspurn og beindi hluta tekjuauka í sparnað …
- … með hjálp ytri aðstæðna virðist því hafa tekist að skapa verðbólguvæntingum kjölfestu og þannig haldið verðbólguþrýstingi í kjölfar kjarasamninga í skefjum
- Hefur gengið betur en óhætt var að vona og því útlit fyrir að hægt sé að ná markmiði með lægra vaxtastigi en áður var talið



Heimild: Seðlabanki Íslands.

Alþjóðlegur samanburður á seðlabankavöxtum

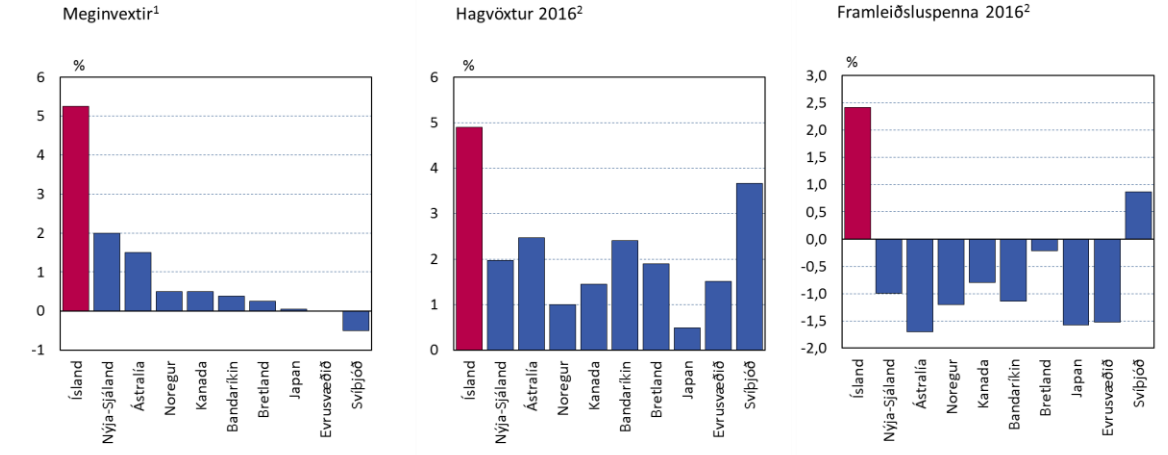
- Meginvextir Seðlabankans eru nú 5,25% … en eru enn töluvert hærri en í öðrum iðnríkjum þótt verðbólga sé svipuð
- Þótt langtímaverðbólguvæntingar hafi þokast að markmiði eru þær enn yfir markmiði ólíkt því sem er í öðrum iðnríkjum þar sem þær hafa trausta kjölfesta eða hafa lækkað undir markmið



1. Nýjustu gildi meginvaxta nokkurra seðlabanka. 2. Ársverðbólga miðað við vísitölu neysluverðs í júlí 2016 (á öðrum ársfjórðungi fyrir Ástralíu og Nýja-Sjáland). 3. Nýjasta mat á væntingum markaðsaðila og greinenda um verðbólgu til næstu 4-5 ára (Ísland, Kanada (6-10 ár), Noregur, Nýja-Sjáland og Svíþjóð), spá Alþjóðagjaldeyrissjóðsins um verðbólgu eftir 5 ár (Bretland) eða út frá verðbólguskiptasamningum til 5 ára (Ástralía, Bandaríkin, Evrusvæðið og Japan).
Heimildir: Alþjóðagjaldeyrissjóðurinn, Bloomberg, Noregsbanki, Kanadabanki, Reuters, Riksbank, Seðlabanki Nýja-Sjálands, Seðlabanki Íslands.

Alþjóðlegur samanburður á seðlabankavöxtum (2)

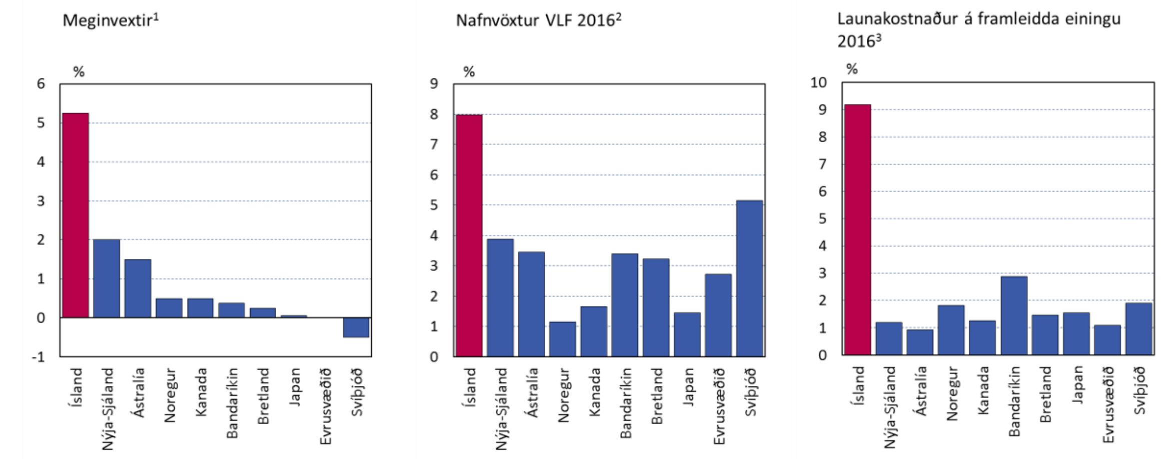
- Hagvöxtur er töluvert meiri hér á landi en í öðrum iðnríkjum (var t.d. 4,7% á fyrsta fjórðungi hér á landi en 1,6% að meðaltali meðal helstu viðskiptalanda): horfur á tæplega 5% hagvexti í ár hér á landi en á bilinu 1-2% í flestum hinna
- Hér er talið að slakinn í þjóðarbúinu hafi horfið fyrir nokkru síðan og nokkur framleiðsluspenna sé tekin að myndast: spáð að verði um 2,5% hér á landi í ár en enn er töluverður slaki til staðar í flestum hinna landanna



1. Nýjustu gildi meginvaxta nokkurra seðlabanka. 2. Spá Alþjóðagjaldeyrissjóðsins (*World Economic Outlook*, apríl 2016) nema fyrir Ísland (*Peningamál* 2016/3).
Heimildir: Alþjóðagjaldeyrissjóðurinn, Seðlabanki Íslands.

Alþjóðlegur samanburður á seðlabankavöxtum (3)

- Nafnvöxtur eftirspurnar er töluvert meiri hér á landi en í öðrum iðnríkjum: spáð 8% vexti nafnvirðis VLF í ár (töluvert umfram 4½-5½% eðlilegan langtímavöxt) en tæplega 3% að meðaltali í öðrum iðnríkjum
- Í öðrum iðnríkjum hefur lítil hækkun launakostnaðar verið viðvarandi vandi: horfur á að hækki um 1½% að meðaltali í ár en yfir 9% hér á landi



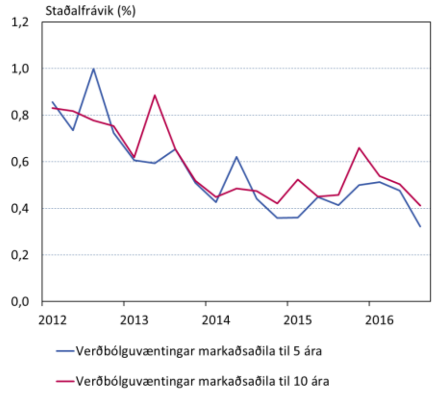
1. Nýjustu gildi meginvaxta nokkurra seðlabanka. 2. Spá Alþjóðagjaldeyrissjóðsins (*World Economic Outlook*, apríl 2016) nema fyrir Ísland (*Peningamál* 2016/3). 3. Spá OECD (*OECD Economic Outlook*, júní 2016) nema fyrir Nýja-Sjáland (*Monetary Policy Statement*, ágúst 2016) og Ísland (*Peningamál* 2016/3).
Heimildir: Alþjóðagjaldeyrissjóðurinn, OECD, Seðlabanki Nýja-Sjálands, Seðlabanki Íslands.

Aukinn stöðugleiki verðlags og efnahagsumsvifa …

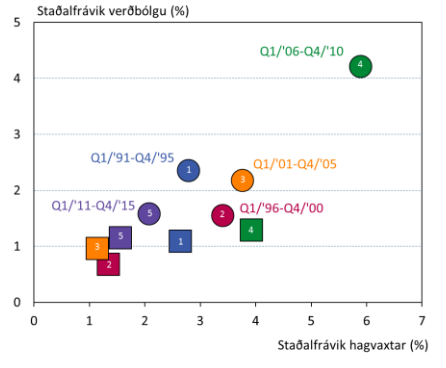
- Óvissa um langtímaverðlagshorfur virðist vera smám saman að minnka: gerir langtímaáætlunargerð auðveldari, eykur skilvirkni og dregur úr sveiflum í raunvöxtum sem er grundvöllur þess að draga úr efnahagslegum óstöðugleika …
- … sem virðist vera að minnka: aukinn peningalegur stöðugleiki stuðlar að því að draga úr hagsveiflum

Óvissa um langtímaverðbólguhorfur[1]

1. ársfj. 2012 - 3. ársfj. 2016



Sveiflur í verðbólgu og hagvexti á Íslandi og öðrum Norðurlöndum 1991-2015[2]



1. Staðalfrávik í svörum markaðsaðila um hvaða verðbólgu þeir vænta að meðaltali næstu 5 og 10 ár. 2. Hringir sýni pör staðalfrávika verðbólgu og hagvaxtar á Íslandi og kassar samsvarandi pör fyrir miðgildi annarra Norðurlanda. 25 ára tímabilinu Q1/1991-Q4/2015 er skipt í 5 jafnlöng 5 ára tímabil.

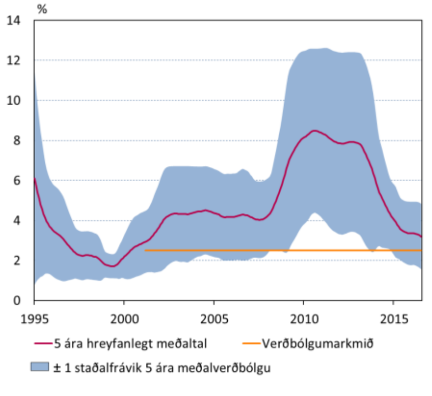
Heimildir: Hagstofa Íslands, OECD, Seðlabanki Íslands.

… en fullnaðarsigur ekki í höfn

- Þrátt fyrir að peningastefnan hafi náð nokkrum árangri við að auka efnahagslegan stöðugleika undanfarið er enn nokkuð í land við að tryggja varanleika þessa árangurs … því þarf að fara varlega og vera viðbúin bakslagi
- Samanburður við Noreg sýnir þetta ágætlega: Noregi hefur tekist að halda verðlagi stöðugu yfir mun lengri tíma sem eykur trúverðugleika Noregsbanka og eykur sveigjanleika hans við mótun peningastefnunnar

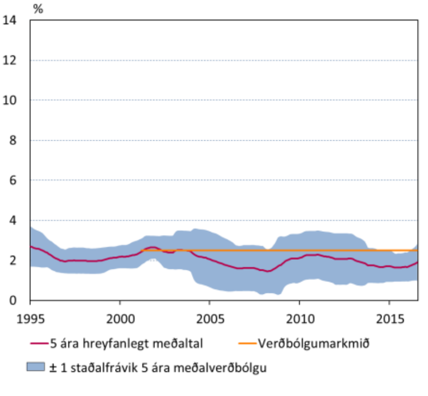
5 ára meðalverðbólga á Íslandi

Janúar 1995 - júlí 2016



5 ára meðalverðbólga í Noregi

Janúar 1995 - júlí 2016



Heimildir: Hagstofa Íslands, Noregsbanki, OECD, Seðlabanki Íslands.

Af hverju hefur gengi krónunnar hækkað?

Þórarinn G. Pétursson

Frá áramótum hefur gengi krónunnar hækkað um fimmtung gagnvart meðaltali annarra gjaldmiðla og frá því að núverandi hækkunarhrina hófst um mitt síðasta ár nemur hækkunin liðlega fjórðungi. Þetta er mikil hækkun á tiltölulega stuttum tíma sem eðlilega hefur vakið athygli. En hvers vegna hefur gengi krónunnar hækkað svona mikið og hver er þáttur peningastefnunnar í hækkuninni? Er ástæða til að hafa áhyggjur af gengishækkuninni og gæti hún jafnvel verið fyrirboði nýrrar kollsteypu, sambærilegri þeirri sem varð hér haustið 2008?

Gengishækkunin endurspeglar fyrst og fremst utanaðkomandi búhnykki

Í einföldu máli má segja að meginorsaka gengishækkunarinnar sé að leita í góðum árangri fyrirtækja í útflutningsstarfsemi við að selja afurðir sínar á alþjóðamörkuðum. Þar ber hæst ótrúlegan vöxt í ferðaþjónustu síðustu ár en að magni til hefur útflutt ferðaþjónusta vaxið um 20-30% á hverju ári síðan 2011 og frá seinni hluta síðasta árs hefur ársvöxturinn verið ríflega 40%. Á þriðja fjórðungi þessa árs var umfang ferðaþjónustu á föstu verði því orðið næstum þrefalt meira en á sama fjórðungi fyrir fimm árum. Þetta er langt umfram vöxt annars útflutnings og meðalvöxt eftirspurnar helstu viðskiptalanda okkar.

Hvað gerist þegar ný útflutningsatvinnugrein vex úr litlu í það að verða ein meginatvinnugrein þjóðarbús á örskömmum tíma? Fyrir það fyrsta aukast útflutningstekjur þjóðarbúsins verulega og við það hækkar innlent tekjustig og fjárhagslegur auður almennings vex. Ofan á þetta bætist síðan seinni búhnykkurinn sem er veruleg hækkun útflutningsverðlags í hlutfalli við verðlag þeirrar vöru og þjónustu sem við kaupum frá útlöndum sem má að mestu leyti rekja til hagstæðrar þróunar á verði sjávarafurða og lækkunar á heimsmarkaðsverði á olíu. Báðir þessir búhnykkir gera það að verkum að innlent ríkidæmi eykst sem hækkar gengi krónunnar.

Búhnykkjunum tveimur fylgir einnig mikill vöxtur í innlendri eftirspurn sem reynir töluvert á takmarkaða innlenda framleiðsluþætti. Eftirspurn eftir vinnuafli eykst hratt og vaxandi fjöldi fyrirtækja starfar við eða umfram fulla afkastagetu. Við slíkar aðstæður er eðlilegt – og í raun æskilegt – að gengi krónunnar hækki. Það hjálpar til við að halda aftur af innlendum verðbólguþrýstingi sem óhjákvæmilega myndast þegar reyna fer á innlenda framleiðsluþætti, m.a. með því að beina innlendri eftirspurn að einhverju leyti út úr þjóðarbúinu, þ.e. að innfluttri vöru og þjónustu. Þannig verður minni þrýstingur á innlenda framleiðsluþætti, auk þess sem hærra gengi auðveldar innlendum fyrirtækjum að sækja t.d. vinnuafl til annarra landa til að mæta mikilli eftirspurn innanlands.

En fleira gerist þegar ný útflutningsatvinnugrein vex svo hratt sem raun ber vitni. Þar sem hún keppir að einhverju leyti um sömu innlendu aðföng og aðrar útflutningsatvinnugreinar, þrýstir vöxtur hennar upp gengi krónunnar til þess að ryðja annarri útflutningsstarfsemi til hliðar á meðan hún skapar sér rými í þjóðarbúskapnum. Þetta er gamalkunnugt stef í íslenskri hagsögu þar sem mikil velgengni í ferðaþjónustu leikur sama hlutverk og gjöful aflabrögð í sjávarútvegi gerðu áður fyrr.

Gengishækkunin undanfarin misseri endurspeglar því að verulegu leyti óhjákvæmilega aðlögun þjóðarbúskaparins að utanaðkomandi búhnykkjum. Hækkunin er því hluti af aðlögunarferli sem stuðlar að því að skapa ferðaþjónustu rými í þjóðarbúinu en stuðlar einnig að því að hægja á vexti hennar svo hann verði í betri takti við vöxt takmarkaðra framleiðslugæða innanlands. Gengishækkunin léttir jafnframt á áraun á innlenda framleiðsluþætti með því að beina hluta eftirspurnarinnar sem skapast vegna búhnykkjanna út úr þjóðarbúinu. Að auki færir hækkunin hluta búhnykkjanna frá útflutningsfyrirtækjunum til almennings í gegnum aukinn kaupmátt heimila með sama hætti og gengislækkunin í fjármálakreppunni létti undir með innlendum fyrirtækjum með því að færa byrðina að hluta yfir á heimilin.

En hvað um peningastefnuna?

Fram til þessa hefur ekkert verið minnst á mögulegan hlut peningastefnunnar í þessari þróun. Vegna mikils hagvaxtar og vaxandi áraunar á innlenda framleiðsluþætti hafa innlendir vextir þurft að vera hærri en vextir í nágrannalöndunum. Þar er enn töluverður slaki til staðar sem gerir þeim fært að hafa nokkurn hagvöxt án þess að verðbólguþrýstingur hljótist af. Jákvæður vaxtamunur styður að öðru óbreyttu við hærra gengi krónunnar og því getur peningastefnan eflt og hraðað þeirri gengisaðlögun sem áður var lýst. Þetta vegur þó ekki þungt í þróuninni undanfarið. Gengishækkunin skýrist ekki af spákaupmennskutengdu innflæði fjármagns í leit að hærri ávöxtun en slíkt innflæði hefur verið sáralítið eftir að Seðlabankinn tók í notkun sérstakt fjárstreymistæki fyrr á þessu ári. Þá hefur Seðlabankinn um nokkurt skeið lagst gegn þrýstingi til hækkunar á gengi krónunnar með því að kaupa töluverðan hluta gjaldeyristekna sem hafa streymt inn í landið. Lengi vel gerði bankinn það til þess að byggja upp öflugan gjaldeyrisforða fyrir losun fjármagnshafta. Að undanförnu hafa kaup bankans einnig endurspeglað viðleitni hans til að draga úr hættunni á að gengi krónunnar ofrísi á núverandi velmegunarskeiði og lækki síðan snarpt þegar gæfan snýst við. Peningastefnan hefur því á heildina litið fremur haldið aftur af hækkun á gengi krónunnar.

Er tilefni til að hafa áhyggjur?

Þótt gengishækkunin eigi sér eðlilegar orsakir er skiljanlegt að útflutningsfyrirtæki hafi áhyggjur af stöðu sinni. Einnig hefur örlað á áhyggjum af því að gengishækkuninni muni fylgja gengishrun eins og hér varð árið 2008. Hafa þarf hins vegar í huga að gengishrunið og fjármálakreppan árið 2008 endurspeglaði þjóðarbúskap sem lifði langt um efni fram og fjármagnaði hátt útgjaldastig með lántöku frá útlöndum. Gríðarlegur viðskiptahalli náði hámarki í næstum fjórðungi af landsframleiðslu árið 2006. Hallann má rekja til mikils vaxtar innlendrar eftirspurnar á sama tíma og þjóðhagslegur sparnaður var í sögulegu lágmarki. Erlendar skuldir þjóðarbúsins voru langt umfram eignir þess, sem sýnir einnig hve þjóðarbúið var háð erlendri fjármögnun. Nú eru aðstæður allt aðrar. Þjóðhagslegur sparnaður er í sögulegu hámarki, myndarlegur afgangur hefur verið á viðskiptum við útlönd í átta ár samfleytt og nýlega náðist sá merkilegi árangur að erlendar eignir þjóðarbúsins urðu meiri en erlendar skuldir þess í fyrsta sinn frá því að mælingar hófust.

Því er erfitt að sjá að sambærilegt gengishrun ætti að verða í nálægri framtíð. Hins vegar mun óhjákvæmilega hægja á vexti ferðaþjónustu. Ekki er heldur útilokað að bakslag verði í greininni eða viðsnúningur á viðskiptakjörum þjóðarbúsins. Við slíkar aðstæður gæti þróunin sem lýst er hér að ofan gengið til baka að einhverju leyti og gengi krónunnar gefið eftir. Það myndi mýkja aðlögun þjóðarbúskaparins að lakari stöðu hans. Aðalatriðið er að fyrirtæki og almenningur skuldsetji sig ekki út frá væntingum um að núverandi velgengni haldi áfram um ókomna tíð. Þar skiptir einnig sköpum að áfram verði gætt strangs aðhalds í hagstjórn. Í því samhengi væri æskilegt að aðrir armar hagstjórnar legðust betur á sveif með peningastefnunni. Aukið aðhald við stjórn opinberra fjármála myndi draga úr þörf á aðhaldi við framkvæmd peningastefnunnar og létta á þrýstingi til hækkunar á gengi krónunnar. Margvísleg útfærsla beinnar gjaldtöku á ferðamenn væri einnig til þess fallin að hægja á eftirspurn þeirra og draga úr þrýstingi á gengi krónunnar og minnka þannig neikvæð áhrif á aðrar útflutningsatvinnugreinar.

Höfundur er aðalhagfræðingur Seðlabanka Íslands og nefndarmaður í peningastefnunefnd bankans. Þær skoðanir sem hér koma fram þurfa ekki að endurspegla skoðanir bankans eða annarra í nefndinni.

Grein birt í Kjarnanum 15. desember 2016.

5. janúar 2017

Efnahagsleg velgengni og gengi krónunnar

Már Guðmundsson

Það gengur óvenju vel í þjóðarbúskap Íslendinga um þessar mundir. Það er full atvinna og kannski gott betur eins og sést á miklum aðflutningi erlends vinnuafls og þeirri staðreynd að um 40% fyrirtækja kvarta undan skorti á vinnuafli. Til viðbótar þessu er kaupmáttur launa í sögulegum hæðum og eignir heimila umfram skuldir hafa ekki í langan tíma verið meiri.Við höfum áður gengið í gegnum hátoppa atvinnu og kaupmáttar samfara vaxandi spennu í þjóðarbúskapnum. Það hefur oftar en ekki endað illa þar sem margvíslegt ójafnvægi í þjóðarbúskapnum magnaðist að því marki að snörp aðlögun varð ekki umflúin. Nú bregður hins vegar svo við að jafnvægið í þjóðarbúskapnum er þrátt fyrir allt mun betra en oft áður. Mæld verðbólga er undir verðbólgumarkmiði en væntingar fólks og fyrirtækja um verðbólgu framtíðarinnar eru við það. Sparnaður heimila og þjóðabús er mun meiri nú en oftast áður á þessu stigi hagsveiflunnar og meðal annars af þeim sökum er verulegur afgangur á viðskiptum okkar við útlönd.

Viðnámsþróttur þjóðarbúsins

Það getur líka mildað áhrif áfalla sem kunna að verða að viðnámsþróttur þjóðarbúsins er meiri en oft vegna þess að skuldsetning heimila, fyrirtækja og hins opinbera hefur minnkað umtalsvert síðustu árin og erlend staða þjóðarbúsins er góð. Gjaldeyrisforði hefur ekki verið hlutfallslega stærri síðan í lok seinni heimsstyrjaldar. Bankar eru með mikið eigið fé og hafa góða lausafjárstöðu. Það eru einkum þrír þættir sem eiga mestan þátt í tiltölulega góðri stöðu. Í fyrsta lagi mikill bati viðskiptakjara síðustu misseri. Í öðru lagi vöxtur ferðaþjónustu. Í þriðja lagi hagstjórn, þ.m.t. peningastefnan, og varúðarstefna varðandi fjármálakerfið sem hafa í sameiningu stuðlað að lítilli verðbólgu, skapað hvata til sparnaðar og eflt viðnámsþrótt þjóðarbúsins og fjármálakerfisins.

Á árinu sem er að líða og í fyrra jukust útflutningstekjur (kaupmáttur útflutnings vöru og þjónustu gagnvart innflutningi) um nærri þriðjung, aðallega vegna bættra viðskiptakjara og vaxtar ferðaþjónustu. Þessi mikla aukning er megin ástæða mikils hagvaxtar og á hún ásamt peningastefnunni mestan þátt í því að miklar launahækkanir hafa fyrst og fremst skilað sér í auknum kaupmætti en ekki í aukinni verðbólgu. Sömu þættir skýra mikinn viðskiptaafgang sem hefur stuðlað að styrkingu krónunnar.

Hver er áhættan?

Er þá engin möguleg vá? Jú, vissulega. Hættan á alvarlegri ofhitnun þjóðarbúsins er augljós. Viðskiptakjör gætu versnað á ný. Þá gæti komið bakslag í ferðaþjónustu. Mikilvægt er að viðeigandi aðilar séu vakandi fyrir þessari áhættu og reyni þar sem því verður við komið að draga úr líkum á því að áhættan raungerist. Þá þurfa stjórnvöld að leitast við að varðveita og efla viðnámsþrótt þjóðarbúsins. Þannig má milda áföllin og afleiðingar þeirra. Til skemmri tíma litið a.m.k. getum við lítil áhrif haft á viðskiptakjörin sem ákvarðast á erlendum mörkuðum. Hins vegar er hægt að draga úr of mikilli eftirspurn með aðhaldssamri hagstjórn og þar með úr líkum á snarpri aðlögun síðar meir. Veruleg slökun aðhalds peningastefnunnar sem miðar að snarpri lækkun raunvaxta stangast við núverandi aðstæður á við það markmið. Langtíma raunvextir geta þó haldið áfram að síga niður haldist sparnaðarstig áfram hátt og raskist jafnvægi í þjóðarbúinu ekki um of á næstunni.

Styrking krónunnar

En þá kann einhver að spyrja: Hvað með mikla styrkingu krónunnar? Felst ekki mesta áhættan í henni? Til að svara þeirri spurningu þarf að glöggva sig á ástæðum hærra gengis. Augljóst virðist að hún sé fyrst og fremst afleiðing þeirrar þróunar sem ég hef hér gert að umtalsefni, sérstaklega á seinni hluta ársins. Þannig varð á þriðja ársfjórðungi met viðskiptaafgangur sem á fyrst og fremst rætur að rekja til afgangs á þjónustuviðskiptum. Á sama tíma var fjármagnsinnstreymi sáralítið. Á heildina litið hafa aðgerðir Seðlabankans á árinu unnið á móti styrkingu gengisins. Sérstök bindiskylda á fjármagnsinnstreymi inn á skuldabréfamarkað og í innstæður hefur nánast stöðvað vaxtamunarviðskipti. Þá hafði bankinn síðastliðinn þriðjudag keypt gjaldeyri á árinu fyrir 385 ma.kr. sem er rúmlega 40% meira en á metárinu 2015. Krónan getur þó vissulega ofrisið og það styður þá varfærni sem felst í miklum gjaldeyriskaupum þrátt fyrir að ekki sé með óyggjandi hætti hægt að fullyrða að gengið sé komið mikið yfir jafnvægi miðað við ríkjandi aðstæður.

Þrátt fyrir ofangreint telja sumir að Seðlabankinn eigi einfaldlega að kaupa mun meira og lækka vextina verulega í þokkabót. En það er ekki útgjaldalaust þar sem innra jafnvægi þjóðarbúsins og verðstöðugleika er þá stefnt í hættu. Þegar öllu er á botninn hvolft felur hækkun gengisins að hluta til a.m.k. í sér aðlögun þjóðarbúsins að vexti ferðaþjónustunnar eftir að fullri atvinnu er náð. Því má líta á hana sem leið markaðarins til að beina þróuninni á sjálfbærari braut. Til að draga úr þeirri áhættu sem vissulega felst í þessari þróun er því áhrifaríkast að höggva að rótum vandans sem um þessar mundir felst í of mikilli samkeppni um vinnuafl, húsnæði og ýmsar aðrar bjargir þessa lands. Ferðaþjónustan er það mikilvæg að hún getur ekki verið þar undanskilin.

Grein birt í Fréttablaðinu 30. desember 2016.

In early June, the Central Bank of Iceland adopted a new policy instrument, a capital flow management measure (CFM), designed to temper and affect the composition of capital flows to Iceland. The CFM is based on the Rules on Special Reserve Requirements for New Foreign Currency Inflows, which were adopted in accordance with a new Temporary Provision of the Foreign Exchange Act, no. 87/1992.[1] It is therefore intended to reduce temporary risk accompanying excessive capital inflows, support other aspects of domestic economic policy, and thereby contribute to macroeconomic and financial stability. Since the CFM was activated, capital flows into the domestic bond market have slowed markedly, and indicators of disturbances in the transmission of monetary policy through the interest rate channel have subsided. Although the CFM is based on the current regulatory framework for foreign exchange, work on the final version of the measure and its long-term legal framework is underway.

Freedom of capital movements has long fluctuated in line with changes in perceived risk and reward

The scope and volatility of global capital flows have changed over time and are determined in part by the degree of liberalisation prevailing at any given time. This, in turn, stems from changing views on the risks and rewards accompanying capital flows (Reinhart *et al.*, 2008, 2016). Free movement of capital grew apace from the collapse of the Bretton Woods system in the 1970s until the onset of the global financial crisis in 2007. For the most part, frequent sudden stop crises in emerging market economies did not affect this development, as they were usually believed to stem primarily from a weak institutional framework and suboptimal economic policy in the countries concerned, and therefore to be less important for advanced economies (Obstfeld, 1998, Calvo *et al.*, 2006; see also Box IV-1 in *Monetary Bulletin* 2008/3). However, in emerging markets, the use of CFMs tended to increase in the wake of such crises.

In recent years, the pendulum has swung back somewhat and the focus has increasingly turned towards the risks that can accompany capital flows in spite of the well-known benefits associated with them. At the same time, there is increased agreement that under certain circumstances, policy authorities, even in advanced countries, may need temporarily to adopt special policy instruments so as to mitigate such risks (see, for example, IMF, 2011a, 2012).[2] This reflects, among other things, increased understanding of the risks entailed in the fact that during inflow surges, domestic balance sheets appear to strengthen because of the associated rise in exchange rate and asset prices. This tends to stimulate demand even further and feed risk appetite – until the weaknesses finally emerge, confidence collapses, inflows give way to outflows, and the economy contracts, perhaps resulting in a financial crisis (Chart 1).[3]

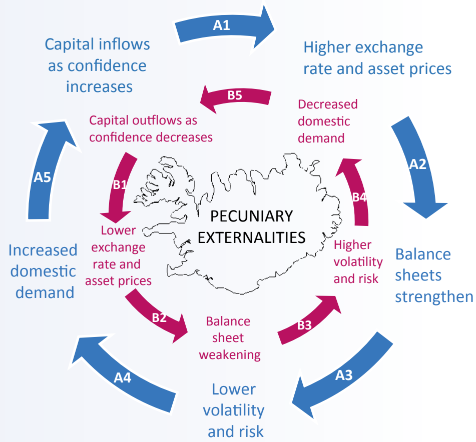
1. Cf. Article 2 of Act no. 42/2016 amending the Foreign Exchange Act, the Act on the Treatment of Króna-Denominated Assets Subject to Special Restrictions, and the Act on a Special Tax on Financial Undertakings, which entered into force on 2 June 2016, and the Rules on Special Reserve Requirements for New Foreign Currency Inflows, no. 490/2016, which took effect on 4 June 2016 and were amended on 16 June and 31 October.
2. Because disruptive capital outflows and the associated economic contraction and even financial crisis often occur following inflow surges, it is generally considered preferable to respond to the inflows in a timely manner, such as by applying CFMs, instead of preventing outflows, although this could prove necessary, as in the case of Iceland (see also Jeanne and Korinek, 2013).
3. Developments of this type are examples of the pecuniary externalities that appear, for instance, in a tendency towards excessive accumulation of foreign debt, where market agents do not consider the systemic impact of their transactions on asset prices and exchange rates, which then causes financial harm to other parties not involved in the

Box 1

Capital flows and the Central Bank's new capital flow management measure

Chart 1

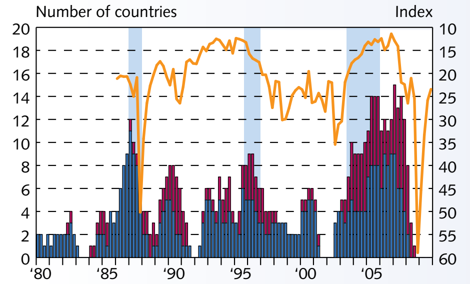
Self-reinforcing interaction of cross-border capital flows, risk appetite, and balance sheet expansions[1]



1. Based on Korinek (2011) and Bruno and Shin (2015).

Chart 2

Gross capital inflow surges[1]



Number of industrialised countries experiencing a capital inflow surge (left)

Number of emerging countries experiencing a capital inflow surge (left)

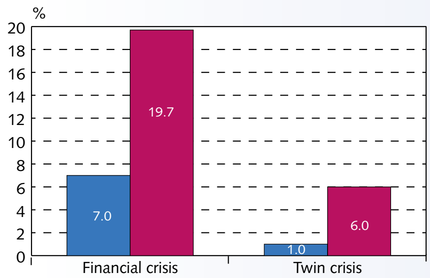
VIX implied volatility index (inverted right axis)

1. The figures shows the number of countries experiencing a gross capital inflow surge based on the definition in Forbes and Warnock (2012a). Shaded area show timing of inflow surges in Iceland. VIX index is a common measure of risk appetite and uncertainty in international financial markets.

Sources: Forbes and Warnock (2012a), Macrobond, Central Bank of Iceland.

Chart 3

Capital inflows and financial crises[1]



All countries

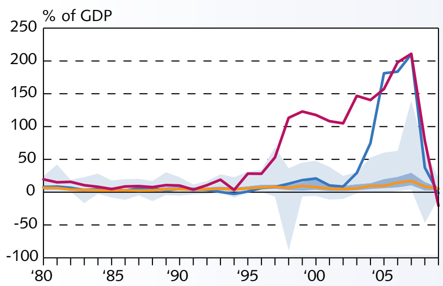
Countries with an inflow surge

1. The chart shows the percentage of instances when a financial crisis occurred in 53 emerging countries over the period 1980-2014, both all instances and those preceded by a capital inflow surge.

Sources: Ghosh, Ostry, and Quereshi (2016); Central Bank of Iceland.

Chart 4

International comparison of capital inflows 1980-2009[1]



Iceland

Ireland

Median (excl. Iceland and Ireland)

Interquartile range

Range between highest and lowest values

1. Capital inflows from abroad reflect non-residents' net purchases of domestic assets each year and show as increased claims against residents. Flows are estimated in US dollars and shown as a share of GDP in terms of its trend path as determined using an HP filter.

Source: Broner, Didier, and Schmukler (2013).

Inflow-related risks vary, depending on circumstances …

Capital inflows are associated with varying levels of risk. Such risk depends on circumstances and is determined in particular by the size and composition of the inflows and the use of the financing that they represent, as well as the resilience of domestic financial markets and balance sheets to the increased inflows and the volatility that can accompany them (Ostry *et al.*, 2011, IMF, 2011a). Inflow surges tend to come in waves (Chart 2) and are associated primarily with global financial conditions, or push factors, as well as domestic pull factors (Reinhart and Rogoff, 2008; Forbes and Warnock, 2012a; Broner *et al.*, 2013). Capital inflows also convey varying risks and rewards for the country receiving them, depending on the type of capital involved (Hogghart *et al.*, 2016). Foreign direct investment (FDI), for instance, is generally considered a desirable and low-risk form of inflow, as it tends to be based on a long-term business relationship and entails the exchange of technology and expertise.[4] Carry trade and other speculative flows, however, seem to be associated with negligible macroeconomic benefits but elevated risk, not least for economies with relatively illiquid markets and insufficiently resilient domestic balance sheets.

… and can be macroeconomic and/or financial in nature

The risks accompanying capital inflows tend to fall into two main categories, based on their impact on the recipient country's economy and financial system. These risks can be macroeconomic – such as domestic currency overvaluation; unsustainable growth in domestic demand, with the associated current account deficit; excessive and distorting shift of production factors between sectors; or increasingly constrained domestic economic policy. They can also be financial in nature when inflows are large enough to contribute to credit and asset price bubbles or to foster unsustainable developments in the size and composition of the economy's external balance sheet, with systemic risk that jeopardises financial stability (IMF, 2011a; Ostry *et al.*, 2011; and Ahrend *et al.*, 2012). Finally, the risks associated with inflows can be simultaneously macroeconomic and financial in nature. Ghosh *et al.* (2016) found that, in about one-fifth of cases over the past few decades, inflow surges to emerging market economies ended with a financial crisis, which could indicate that the likelihood of a financial crisis is nearly three times greater in countries experiencing inflow surges (Chart 3).

Virtually unprecedented capital flows played a pivotal role in Iceland's last financial crisis …

During the run-up to the last financial crisis, Iceland experienced financial flows (Chart 4 shows the inflows) that were virtually unprecedented in scope and fuelled significant macroeconomic and financial imbalances. They also undermined monetary policy by jamming the interest rate channel (Chart 5), shifting policy transmission to the more unpredictable exchange rate channel and encouraging accumulation of foreign-denominated debt. This chain of events resulted in the severest financial crisis in Iceland's history and the introduction of comprehensive capital controls (see Einarsson *et al.*, 2015, 2016a, 2016b, for a discussion of, among other things, the strong

transactions (perhaps including the general public). The existence of such externalities can be used as an argument for economic policy intervention to correct for these types of market imperfections (Korinek, 2011).

4. When an investor in one country owns more than 10% of equity in a company in another country, this is referred to as FDI. However, a recent paper by Blanchard and Acalin (2016) points out measurement difficulties that could cause the inclusion of short-term capital flows with FDI.

spillovers from global financial conditions to the domestic economy and financial system over a period spanning more than a century).

... and inflow-related challenges arose again following the publication of the authorities' capital account liberalisation strategy in 2015

During the slightly more than eight years since the collapse of the Icelandic banking system, the above-mentioned imbalances have been unwound, various economic policy reforms have been introduced, and the domestic economic recovery has gained momentum.[5] At the same time, the most important obstacles to capital account liberalisation – i.e., those related to the settlement of the failed banks' estates and the outstanding stock of offshore krónur – have been either eliminated or isolated, making the large steps already taken towards liberalisation and the steps scheduled at the end of the year possible. Immediately after the presentation of the authorities' revised liberalisation strategy in June 2015, inflows to the domestic bond market increased, causing long-term interest rates and term premia to decline (Chart 6 and Chart 12 below) in spite of Central Bank rate hikes (see Box 1 in *Monetary Bulletin* 2015/4). The interest rate channel appeared to have become clogged again, shifting monetary policy transmission increasingly towards the uncertain and volatile exchange rate channel. Inflows, which had been largely unrestricted since 2009, therefore created challenges again before controls on outflows had been lifted to any significant degree. This came somewhat as a surprise, and work on the Bank's new CFM was therefore expedited.[6]

Development of the CFM was based largely on guidelines from the IMF, ...

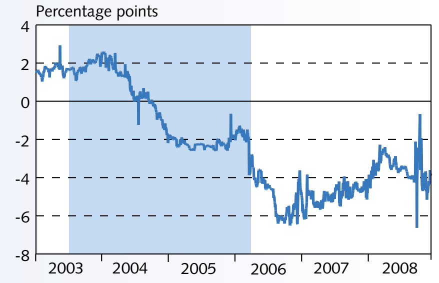
The development of the Bank's CFM was based on guidelines from the IMF, the experience of other countries, and domestic economic conditions. In 2012, the Fund issued its first institutional view on how to respond to rapid changes in capital flows and carry out capital account liberalisation. According to the IMF view, it can be advisable to apply CFMs under certain conditions; for example, when an inflow surge is ongoing, macroeconomic or financial risk is building up, and conventional economic policy response in the form of, for instance, monetary and/or fiscal tightening is constrained. The IMF emphasises that the use of CFMs is not intended as a substitute for traditional policy responses but rather as a complement when conditions require it (Chart 7). Finally, the Fund emphasises that the design and application of CFMs should be characterised by transparency, efficiency, and as limited discrimination as possible; in addition, CFMs should be temporary so that they can be unwound as soon as circumstances permit, due to their potential negative side effects (IMF, 2012).

5. Among new policy instruments are liquidity rules and rules on funding ratios in foreign currency, which are intended to strengthen the resilience of financial institutions vis-à-vis liquidity shocks and to limit their ability to take excessive foreign currency and exchange rate risk. Although they affect capital flows, they can hardly be considered CFMs according to IMF criteria except when the inflows are considered a major source of systemic risk that requires a response. Another policy instrument that has been used increasingly is foreign exchange market intervention, which can lessen the impact of inflows on the exchange rate.
6. The future development of such a policy instrument was announced, among other things, in Central Bank of Iceland (2010, 2012). As was stated in the Governor's speech at the Central Bank's Annual General Meeting in March 2016, it would be desirable to have the statutory framework for such a tool in place before the planned offshore króna auction took place.

Chart 5

Slope of the yield curve during periods of debt inflow surges in Iceland[1]

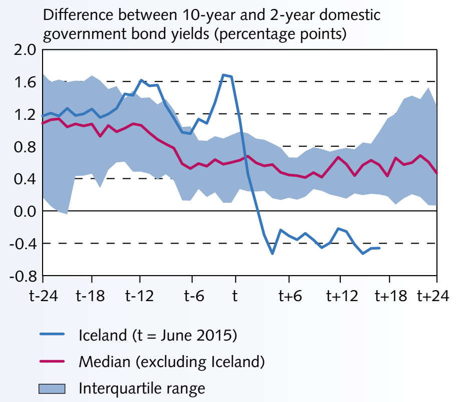
Daily data 3 January 2003 - 30 December 2008



1. The shaded area shows periods featuring a surge in debt inflows from non-residents to Iceland. 2. Based on the estimated nominal yield curve. The estimate is based on interbank market rates and Treasury bond rates.
Sources: Forbes and Warnock (2012b), Macrobond, Central Bank of Iceland.

Chart 6

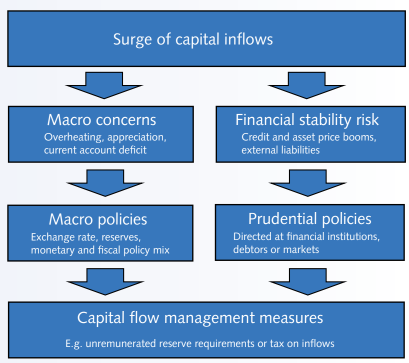
Slope of the domestic yield curve during periods of debt inflow surges in small, open advanced economies[1]



1. Based on Forbes and Warnock's (2012b) assessment of debt-led capital inflow surges. The first month of the surge period is denoted by t. The sample include 22 episodes of debt inflows where countries were in a policy tightening phase as the surge started.
Source: Forbes and Warnock (2012b), Macrobond, Central Bank of Iceland.

Chart 7

Use of CFMs in response to macro or financial instability



Sources: Ostry *et al.* (2011), Central Bank of Iceland.

Chart 8

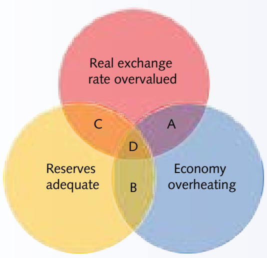
CFM by country

Tax on inflows	Reserve requirements
· Brazil 1993-1997, 2009-2013 · South Korea 2010- · Thailand 2010-	· Chile 1991-1998 · Colombia 1993-1998, 2007-2008 · Thailand 1995-1996, 2006-2008 · Croatia 2004-2008 · Indonesia 2010- · Turkey 2010-

Source: Central Bank of Iceland.

Chart 9

Coping with macroeconomic concerns due to capital inflows: Policy considerations



A: Conditions to respond to inflows with sterile intervention in the FX market to strengthen foreign reserves and decrease currency appreciation pressures.
B: Conditions to respond to inflows by allowing the real exchange rate to rise towards equilibrium, thus decreasing the expansionary impact of inflows.
C: Conditions to respond to inflows by lowering interest rates to decrease the interest rate differential to abroad.
D: Conditions where there is limited flexibility for conventional monetary policy responses: overvalued real exchange rate, overheating economy and abundant FX reserves.

Source: International Monetary Fund (2012).

... other countries' experience with CFMs ...

Given the limited experience to date in application of CFMs, there is considerable uncertainty about how effective they are. In recent years, CFMs have been used primarily in South Asia and South America, where they have tended to take the form of special reserve requirements or taxes on capital inflows (Chart 8), but bilateral taxation treaties, among other things, often complicate implementation of the taxation approach. An attempt to summarise the main lessons from other countries' experience would include the following:[7] There is limited evidence that the use of CFMs has reduced inflows and thereby contained the appreciation of the domestic currency. On the other hand, there are clear indications that the use of CFMs changes the composition of inflows, thereby mitigating the associated risk, although strong credit growth and steep rises in asset prices have nonetheless occurred in some instances. There are some signs, albeit not unequivocal ones, that CFMs have given monetary policy broader scope to apply domestic interest rates. Furthermore, it appears that the use of CFMs is determined to a large extent by the authorities' ability to enforce them effectively and prevent circumvention. And finally, it should be borne in mind that due to differences in institutional framework and other conditions, caution should be taken in applying the lessons learned from one country's CFM to other countries.

... and domestic economic conditions

In developing the Central Bank's CFM, it was considered important that the design of the measure and decisions on its activation be based on a thorough analysis of domestic economic conditions. Of particular importance was to assess whether conditions warranted the use of such a tool and what type of tool would be best suited to the Icelandic economy and financial system. Four points were considered key factors in this context.

First of all, macroeconomic risk had already begun to accumulate after the authorities presented their capital account liberalisation strategy in mid-2015, as is mentioned above. This risk was first and foremost reflected in disturbances in monetary policy transmission through the interest rate channel. Inflow-generated systemic risk was still limited, as inflows were not large and there was still scope to tighten other prudential tools. It was clear, however, that circumstances could change rapidly – for instance, in connection with the offshore króna auction in mid-June.

Second, the scope for a conventional economic policy response to growing macroeconomic risk stemming from excessive inflows seemed to be rapidly diminishing over the course of 2016: demand pressures were on the rise, the real exchange rate was rising significantly, and the size of the foreign reserves was heading towards exceeding measures of adequate reserve size if large-scale (sterilised) intervention continued (Chart 9).[8]

Third, there were increasing incentives for carry trade, owing to the ever-widening gap between economic developments in Iceland and elsewhere. Conditions in the global financial markets have actually been unusual for some time, and the stock of foreign government bonds trading with negative yields has grown rapidly. Therefore, it was understandable that foreign investors should be interested in domestic bonds – and it was to be expected that this interest would increase if a tighter domestic monetary stance should be needed. The risk was therefore that speculation of this

7. See, for instance, IMF (2011a, b, 2012); Ostry *et al.* (2011); Habermeier *et al.* (2011); Baba and Kokenyne (2012); and Bruno *et al.* (2015).

8. Even though there was scope for further fiscal tightening, it did not appear that this would be forthcoming when work on the CFM was at its peak during the spring. On the contrary: it appeared as though further easing lay ahead (see Chapter IV in *Monetary Bulletin* 2016/2).

type would be extensive once again and overburden the domestic institutional framework.[9]

And finally, it was clear that consideration must be given to the fact that large steps towards capital account liberalisation lay ahead. As a result, a CFM could be needed to mitigate risk during the liberalisation process, not least in view of the offshore króna auction that then lay ahead, but also because of the possibility that a surge in speculative carry trade inflows could exacerbate the risk of even stronger outflows following further steps towards general liberalisation.

In view of all this, the Central Bank considered it necessary to have a CFM at hand and activate it immediately so as to temper inflows – particularly those related to carry trade involving bonds and lending – which would also mitigate potential disturbances in monetary policy transmission during the economic adjustment ahead and reduce the risk attached to upcoming steps towards capital account liberalisation. It seemed clear that passing legislation without activating the CFM could have boosted short-term inflows before the tool was activated.

CFM in the form of special reserve requirements for specified inflows …

The type of CFM used by the Bank is based on a well-known method of tempering capital flows and on the assessment of economic conditions mentioned above.[10] Attempts were also made to ensure that the tool would be flexible, targeted, and efficient, thereby facilitating prompt response to changes in circumstances.

The statutory basis for the CFM can be found in a new temporary provision of the Foreign Exchange Act, no. 87/1992 (cf. Article 2 of Act no. 42/2016), which authorises the Central Bank to adopt rules on special reserve requirements for new foreign currency inflows in connection with specific types of capital, particularly to include bonds, bills, and deposits. The Bank's scope for designing the implementation of the CFM is therefore laid down in the law, while the actual form of the measure is determined by the Bank's rules, which must receive ministerial approval. Five key variables in the CFM determine its structure at any given time: special reserve base, holding period, and special reserve ratio (which specify the *type* of capital for which reserves must be held, the specified *period of time* and the *percentage* of new foreign currency inflows subject to the requirement), interest rate (applied to the special reserve amount), and settlement currency. According to the current rules, which do not fully utilise the scope in the statutory authorisations, the special reserve base is mainly specified as listed bonds and bills plus certain deposits; the holding period is one year, the special reserve ratio is 40%, the special reserve amount earns no interest, and settlement takes place in Icelandic krónur.

… to reduce the incentive for carry trade and promote more effective monetary policy transmission

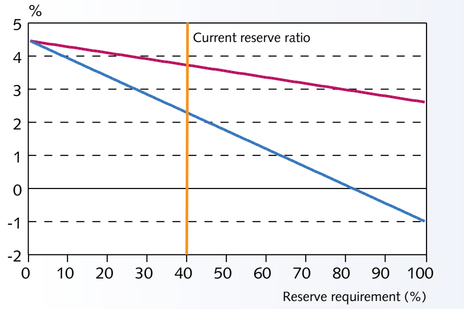
The CFM is designed to reduce the risk associated with carry trade-related inflows. Tying up a portion of inflows for one year in a non-

9. Carry trade-related inflows entail increased short-term obligations for the economy; therefore, it is preferable to respond by building up foreign reserves and tempering such inflows rather than encouraging increased outflows and letting short-term capital of this type fund increases in foreign long-term assets (by pension funds, for instance), as this would entail increased maturity mismatches on the economy's external balance sheet.

10. In general, CFMs can be classified based on whom or what they target (i.e., participants in capital transactions based on residence; specific flows based on currency denomination, type or duration; or financial markets or financial institutions) and the tempering that they entail (i.e., whether they are price- or quantity-based measures).

Chart 10

Interest rate differential per year for various reserve ratios and investment duration[1]



12-month investment

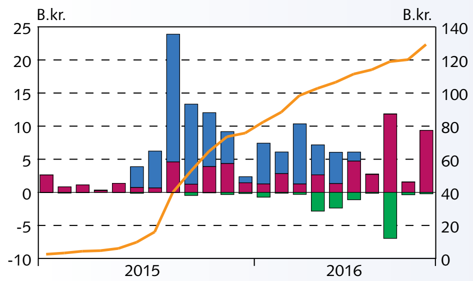
36-month investment

1. Based on the following assumptions: Holding period 1 year, domestic interest rates 5.5%, foreign interest rate 1%, interest rate on special reserve ratio 0%, risk premium 0%, unchanged exchange rate.
Source: Central Bank of Iceland.

Chart 11

Capital flows

January 2015 - October 2016



Capital inflows into government bonds (left)

Other capital inflows (left)

Capital outflows (left)

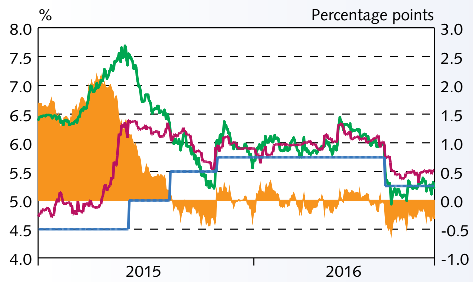
Cumulative net capital flows (right)

Source: Central Bank of Iceland.

Chart 12

Key Central Bank rate and nominal Treasury bond yields

Daily data 2 January 2015 - 11 November 2016



Spread between Treasury bonds maturing in 2031 and 2016 (right)[1]

Key CBI rate (seven-day term deposit rate) (left)

Treasury bond maturing in 2016 (left)[1]

Treasury bond maturing in 2031 (left)

1. From 14 April 2016, Treasury bond maturing in 2017 instead of 2016.
Source: Central Bank of Iceland.

interest-bearing account cuts into the profit on such carry trade – the shorter the investment horizon, the stronger the effect. For instance, approximately half of the expected interest rate differential on a one-year investment (disregarding potential exchange rate effects) is eliminated due to the reserve requirement (Chart 10). Profits on long-term investments will be affected much less, however, and inflows for portfolio equity investment and direct investment are fully exempted. In this way, the CFM is designed to promote a lower-risk composition of inflows while contributing to more effective transmission of monetary policy through the interest rate channel, thereby making it easier to maintain an interest rate different from that prevailing abroad if it is needed to keep inflation at target. Furthermore, the CFM is a temporary measure that can be dismantled with a simple amendment of the rules.

Inflows have subsided since the CFM was activated …

Since the CFM was activated in early June, inflows into the domestic bond market have virtually halted and total capital inflows subsided. However, inflows not subject to special reserve requirements have increased in comparison with the first half of the year (Chart 11), due mostly to larger FDI inflows, but also to portfolio equity investment.

The composition of the inflows has also changed, but it is too early to assess whether the change is a lasting one and what the ultimate contribution of the CFM will turn out to be. On the other hand, the aim of the measure was clearly to temper inflows, particularly inflows into the bond market, and to mitigate risk during the next steps towards capital account liberalisation. Inflows into the bond market have been negligible since the CFM was activated, the offshore króna auction has already taken place, and large steps have been taken towards general capital account liberalisation. It could therefore be appropriate to consider whether changes should be made to the CFM, in addition to those that must take place before the capital controls are fully lifted.[11] In this context, it is important to determine whether there has been a reduction in the macroeconomic risk that apparently emerged in the form of disturbances in monetary policy transmission via the interest rate channel.

… and there are fewer signs of problems in monetary policy transmission

It is difficult to assess the impact of the CFM on nominal Treasury bond yields, as important drivers of bond yields have changed in recent months, and it is hard to determine how yields would have developed without the CFM (see also Chapter III). Even though the CFM has been activated, the spread between short- and long-term Treasury bonds has remained narrow. Yields on longer Treasury bonds certainly rose just after the CFM was activated, but they reversed quickly and have fallen even further in the recent term (Chart 12).

Among the forces that may be at work here are the reduction in long-term inflation expectations and changed expectations about developments in Central Bank interest rates. In August, the Bank's Monetary Policy Committee (MPC) announced a rate cut and indicated that it appeared that it might be possible to keep inflation at target with a lower key interest rate than was previously thought necessary. The MPC also changed its message and allowed for the possibility that the key rate could rise or fall, whereas it had previ-

11. Some amendments were passed on 31 October, including a provision exempting individuals from the special reserve requirement, subject to a specified maximum amount.

ously considered it more likely that a further rate hike would be needed. To some extent, the reduction in bond market yields could also reflect the continuing improvement in Iceland's sovereign credit ratings and the reduction in risk premia on Treasury obligations. Therefore, unlike last year, it is likely that the decline in long-term bond yields is due primarily to changes in market expectations in response to the MPC's statements and to a change in the economic outlook as a result of more favourable developments than forecasts had indicated. As a consequence, there is less reason to doubt the efficiency of monetary policy transmission through the interest rate channel than there was a year ago, when bond market yields declined in spite of both a Central Bank rate increase and the MPC's signal of possible rate hikes in the future.

Future structure of the CFM

The current version of the CFM is based on the statutory authority provided for in a temporary provision of the Foreign Exchange Act, in connection with the capital controls. The authorities chose to utilise the existing framework for capital inflows, particularly on the basis of new investment that must be explicitly registered. This facilitates implementation of the special reserve requirement. After the capital controls have been fully lifted, however, a new and more permanent version of the CFM and its statutory framework must be laid down, presumably in the Act on the Central Bank of Iceland, no. 36/2001. Preparations for such a framework are already underway.

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March 27, 2001

Declaration on inflation target and a change in the exchange rate policy

(From March 27, 2001 – as amended by agreement between between the Prime Minister of Iceland and the Board of Governors of the Central Bank of Iceland on November 11, 2005, cf. Press release no. 35/2005)

On March 27, 2001 the Prime Minister and the Governors of the Central Bank of Iceland signed a declaration on changes in the framework of monetary policy in Iceland. The declaration is as follows:

The Government of Iceland and the Central Bank of Iceland have decided the following changes in the framework of monetary policy in Iceland, effective March 28, 2001:

(1) The main target of monetary policy will be price stability as defined below. The Central Bank shall also promote financial stability and the main objectives of the economic policy of the Government as long as it does not deem it inconsistent with the Bank's main objective of price stability.

(2) Rather than basing monetary policy on keeping the exchange rate within a fluctuation band, the Central Bank will aim at keeping inflation within defined limits as specified below.

(3) The change described above implies that the fluctuation limits for the króna are abolished. Nevertheless, the exchange rate will continue to be an important indicator in the conduct of monetary policy.

(4) The Government grants full authority to the Central Bank to use its instruments in order to attain the inflation target.

(5) Later this week, the Government will submit to Parliament a bill on a new Central Bank Act which, once enacted, will legally confirm the decisions described above on making price stability the main objective of monetary policy and on the independence of the Central Bank to use its instruments.

(6) The inflation target of the Central Bank will be based on 12-month changes in the consumer price index as calculated by Statistics Iceland. Statistics Iceland will also be asked to calculate one or more indices which may be used to assess the underlying rate of inflation, as will be further agreed between the Central Bank and Statistics Iceland. The Central Bank will take note of such indices in its assessment of inflation and in the implementation of monetary policy.

(7) The Central Bank will aim at an annual inflation rate of about 2½ per cent.

(8) If inflation deviates by more than 1½ percentage point from the target, the Central Bank shall bring it inside that range as quickly as possible. In such circumstances, the Bank will be obliged to submit a report to the Government explaining the reasons for the deviations from the target, how the Bank intends to react and how long it will take to reach the inflation target again in the Bank's assessment. The report of the Bank shall be made public.

(9) The Central Bank shall aim at attaining the inflation target of 2½ percent not later than by the end of 2003. In the year 2001, the upper Declaration on inflation target and a change in the exchange rate policy limit for inflation shall be 3½ percentage points above the inflation target but 2 percentage points above it in the year 2002. The lower limit for inflation will always be 1½ percentage point below the inflation target. Should inflation move outside the target range in 2001 and 2002, the Bank shall respond as set out in item 8 above.

(10) Despite the elimination of the fluctuation limits for the króna, the Central Bank will intervene in the foreign exchange market if it deems such action necessary in order to promote the inflation objective described above or if it thinks that exchange rate fluctuations might undermine financial stability.

(11) The Central Bank shall publish inflation forecasts, projecting inflation at least two years into the future. Forecasts shall be published in the Bank's Monetary Bulletin. This shall also contain the Bank's assessment of the main uncertainties pertaining to the inflation forecast. The Bank shall also publish its assessment of the current economic situation and outlook.

[Amended text by agreement between the Prime Minister of Iceland and the Board of Governors of the Central Bank of Iceland on November 11, 2005]

(12) The Central Bank shall in its publications explain how successful it is in implementing the inflation target policy. The Governors will also report to the Minister, the Government and committees of the Parliament on the policy of the Bank and its assessment of current economic trends and prospects.