

## VI Inflation

Inflation measured 2.5% in Q1/2018 but eased back to 2.3% in April. Underlying inflation has risen recently and is currently in line with headline inflation. House prices have increased year-to-date, particularly in regional Iceland, and are still the main driver of inflation. The effects of the past appreciation of the króna have continued to subside, and there are signs that domestic inflationary pressures have increased. Wages are expected to rise more this year than previously anticipated, although it is still assumed that the upcoming wage settlements will be accommodated within the framework agreement in the labour market. Short-term inflation expectations have risen since the last *Monetary Bulletin*, whereas market agents' long-term inflation expectations appear broadly in line with the target.

### Recent developments in inflation

#### Inflation close to target

Inflation measured 2.5% in Q1/2018, about 0.1 percentage points above the forecast in the February *Monetary Bulletin*. Rising house prices, particularly in regional Iceland, had the most impact on the CPI during the quarter. In March, the effect of higher house prices was close to the monthly average for H1/2017, when house price inflation was unusually strong.

Inflation measured 2.8% in March, rising above the Central Bank's inflation target for the first time in four years (Chart VI-1). The CPI rose by 0.04% month-on-month in April, however, bringing headline inflation back down to 2.3%, slightly lower than at the time of the last *Monetary Bulletin* but 0.4 percentage points higher than at the end of 2017. Developments in the CPI in April were driven mainly by rising petrol prices, with a decline in house prices pulling in the opposite direction. The CPI excluding housing was down 0.2% year-on-year in April, a smaller decline than in previous months. The difference between inflation with and without housing has been narrowing since it peaked in summer 2017. The HICP, which also excludes owner-occupied housing costs, rose 0.3% year-on-year in March.

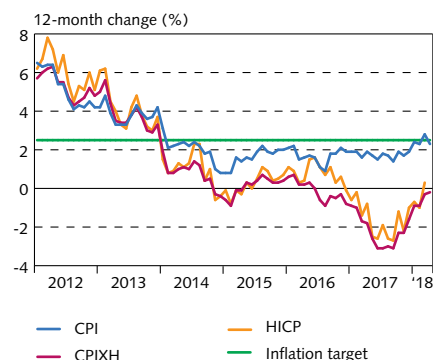
### Underlying inflation and other indicators of inflationary pressures

#### Underlying inflation has risen in the recent term

Underlying inflation has been on the rise in the recent past (Chart VI-2). The median of various measures was 2.3% in April, up from 1.5% in April 2017 (see also Box 4). Underlying inflation is therefore in line with measured inflation at present but has risen somewhat more rapidly in the past year.

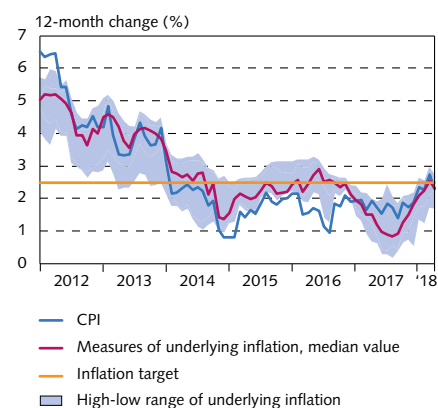
House price inflation had eased by end-2017, after having been the main driver of headline inflation in recent years (Chart VI-3). In Q1/2018, house prices rose sharply once again, however, particularly outside the capital area. The rise in owner-occupied housing costs pushed the CPI upwards by 0.6 percentage points in Q1, and

Chart VI-1  
Various measures of inflation  
January 2012 - April 2018



Sources: Statistics Iceland, Central Bank of Iceland.

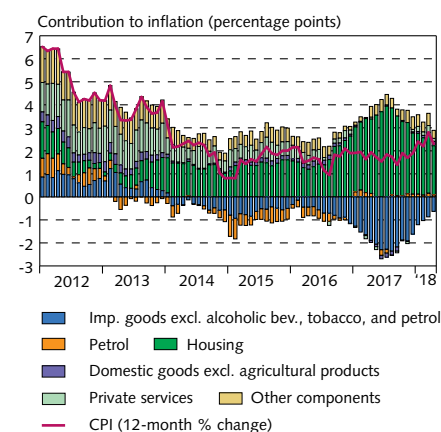
Chart VI-2  
Headline and underlying inflation<sup>1</sup>  
January 2012 - April 2018



1. Underlying inflation measured using a core index (which excludes the effects of indirect taxes, volatile food items, petrol, public services, and real mortgage interest expense) and statistical measures (weighted median, trimmed mean, a dynamic factor model, and a common component of the CPI).

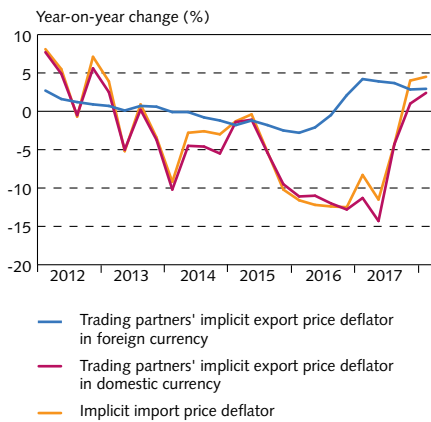
Sources: Statistics Iceland, Central Bank of Iceland.

Chart VI-3  
Components of CPI inflation  
January 2012 - April 2018



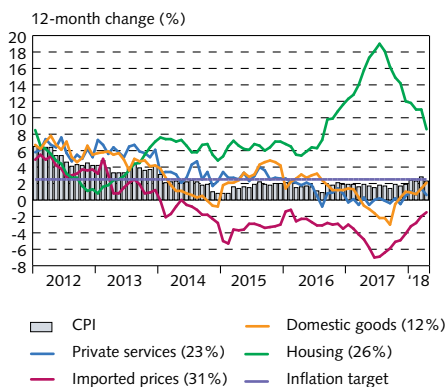
Source: Statistics Iceland.

Chart VI-4  
Import prices and international export prices<sup>1</sup>  
Q1/2012 - Q1/2018



1. Central Bank baseline forecast Q1/2018.  
Sources: Statistics Iceland, Thomson Reuters, Central Bank of Iceland.

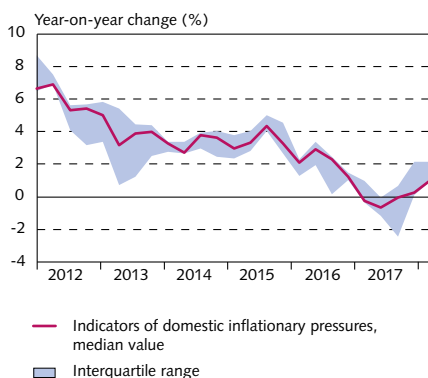
Chart VI-5  
Imported and domestic inflation<sup>1</sup>  
January 2012 - April 2018



1. Imported inflation is estimated using imported food and beverages and the price of new motor vehicles and spare parts, petrol, and other imported goods. The figures in parentheses show the current weight of these items in the CPI.

Sources: Statistics Iceland, Central Bank of Iceland.

Chart VI-6  
Domestic inflationary pressures<sup>1</sup>  
Q1/2012 - Q1/2018



1. The shaded area includes five indicators of domestic inflationary pressures. The indicators are unit labour costs (moving average), the GDP price deflator, prices of private services and domestic goods, and producer prices of goods sold domestically. Central Bank baseline forecast Q1/2018 for the GDP price deflator and for unit labour costs.  
Sources: Statistics Iceland, Central Bank of Iceland.

$\frac{2}{3}$  of that effect was attributable to the rise in regional Iceland house prices. This increase in regional Iceland is probably due in part to last year's steep rise in capital area house prices, which shifted some of the demand for housing to near-lying communities. Developments in regional house prices are very volatile, and part of the increase reversed in April. The twelve-month rise in the housing component of the CPI measured 8.6% in April, down from the peak of 19% in July 2017 (see Chapter III).

### Effects of past appreciation of the króna taper off ...

The impact of past appreciation of the króna on imported goods prices has subsided in recent months. The króna has strengthened by 2% year-to-date. Imported goods and services prices are estimated to have risen by 4.5% year-on-year in Q1, whereas the annual average has fallen each year for the past five years (Chart VI-4). Imported food and beverages prices, for example, have risen by 1.2% in the past twelve months, after falling virtually unimpeded since 2015. In addition, global oil prices have risen markedly year-on-year and, by May, had reached their highest point since end-2014 (see Chapter II). On the whole, however, the price of imported goods in the CPI had fallen by 1.5% year-on-year in April, as clothing, furniture, and electronic equipment prices were lower than they were a year ago (Chart VI-5).

### ... and domestic inflationary pressures increase at the same time

Various indicators imply that domestic inflationary pressures have been on the rise recently, although they are still moderate (Chart VI-6). It is likely that the effects of the recent large pay rises will be partly passed through to prices as the effects of the stronger króna taper off. The price of domestic goods in the CPI has risen by just over 2% in the past twelve months, whereas it had fallen by a little more than 1%, on average, in H2/2017. Producer prices of goods sold domestically are still lower than they were twelve months ago, but the year-on-year decline is now much smaller. The contribution of private services to inflation is still limited, but this has been strongly affected by the past few years' reduction in overseas airfares, which stems largely from the vastly increased competition in passenger flights to and from Iceland. In addition, the decline in telephone services prices has begun to ease (Chart VI-7). Indicators therefore imply that domestic inflationary pressures have begun growing.

The results of Gallup's spring survey among Iceland's 400 largest companies indicated that more executives expect both input prices and the price of their own goods and services to increase (Chart VI-8). About 44% of executives expected to need to raise their prices in the next six months, the largest share in two years. The share of respondents who expected to face rising input prices has risen sharply in the recent past, with just over 63% of respondents expecting a rise in the next six months. Most likely, some of the increase since the autumn 2017 survey is due to the recent rise in global oil prices.

### Wages rose more in 2017 than previously estimated

In March, Statistics Iceland published production accounts figures on developments in wages and related expenses during the period 2014-

2016, which include a minor upward revision of previous figures. Statistics Iceland also published its first estimates of increases in wages and related expenses in 2017. According to those figures, wages per hour rose by 8.3% during the year, much more than the 6.3% forecast in the February *Monetary Bulletin*. The deviation could be due in part to larger demand-related bonus payments or a larger share of overtime hours, but it should be borne in mind that Statistics Iceland's early figures have a tendency to change markedly upon revision. The increase is also much larger than both the rise in wages per hour worked according to Statistics Iceland's newly published figures and the rise in the wage index, both of which measured 6.8%. In view of this, the baseline forecast assumes that wages per hour rose by 7.5% in 2017, which is more than was projected in February but less than the production accounts suggest.

### Upcoming wage settlements still expected to be accommodated within the framework agreement in the labour market

The wage agreements finalised since the last *Monetary Bulletin* have been in line with that forecast. Contracts were not reviewed or terminated in February, but there is still considerable unrest in the labour market, and deep dissatisfaction with wages and income distribution. In spite of this, it is assumed that the settlements to be negotiated late this year and early in 2019 will be consistent with the framework agreement in the labour market.

The aforementioned revision of last year's wage increases also affects average wage growth in 2018. In addition, wage drift has been stronger than was assumed in February. As a result, pay rises this year measure over 1 percentage point more than previously forecast. The estimate of productivity growth is largely unchanged (see Chapter V); therefore, unit labour costs rise more than previously projected. They are now projected to have risen by just over 5% in 2017, followed by an increase of nearly 7% this year (Chart VI-9).

## Inflation expectations

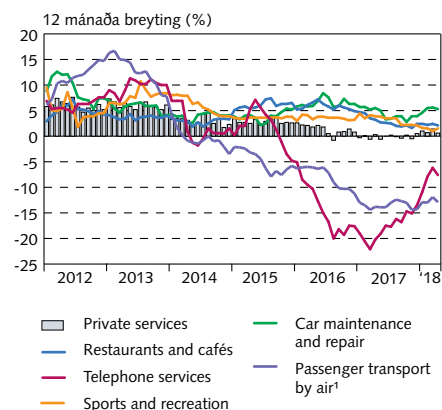
### Short-term inflation expectations rise again ...

Households' and businesses' short-term inflation expectations have risen since the last *Monetary Bulletin* (Chart VI-10). According to the Gallup surveys carried out this spring, both households and corporate executives expected inflation to measure 3% in one year's time. Corporate inflation expectations had risen by 0.5 percentage points from the winter survey but had remained below 3% for the past two years. Households' two-year inflation expectations also rose by 0.5 percentage points, to 3.5%. The breakeven inflation rate in the bond market points more or less in the same direction. The two-year breakeven rate averaged almost 3% in April, some 0.3 percentage points higher than in February.<sup>1</sup> Market agents' short-term inflation expectations, however, have remained broadly unchanged in recent months. Accord-

1. The breakeven inflation rate is calculated based on the interest rate differential between indexed and non-indexed bonds. It should be borne in mind when interpreting the breakeven rate that it also includes a risk premium related to bond liquidity, as well as a risk premium reflecting uncertainty about inflation.

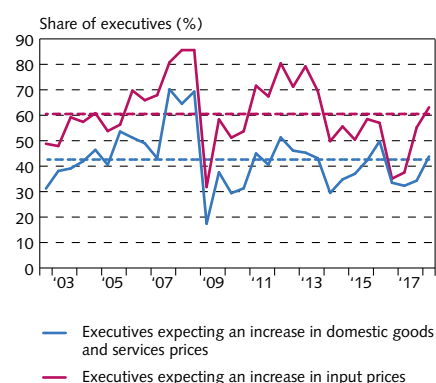
Chart VI-7  
Private services and selected subcomponents of the CPI

January 2012 - April 2018



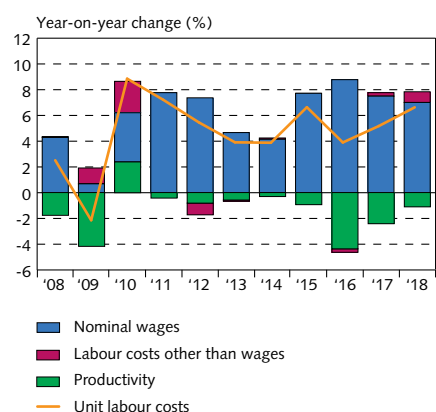
1. Twelve-month moving average.  
Sources: Statistics Iceland, Central Bank of Iceland.

Chart VI-8  
Corporate expectations of input and product prices 6 months ahead 2002-2018<sup>1</sup>



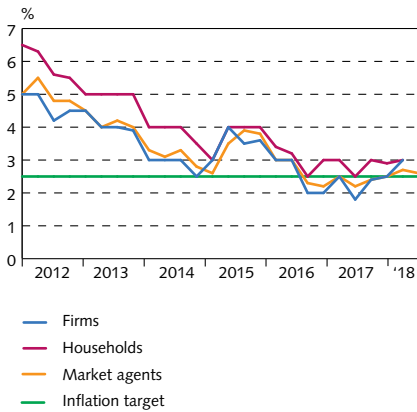
1. Broken lines show averages from 2002.  
Source: Gallup.

Chart VI-9  
Unit labour costs and contribution of underlying components 2008-2018<sup>1</sup>



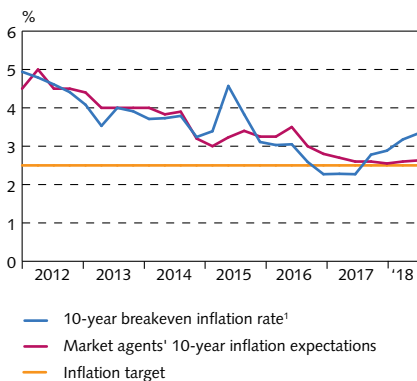
1. Labour productivity growth is shown as a negative contribution to an increase in unit labour costs. Central Bank baseline forecast 2017-2018.  
Sources: Statistics Iceland, Central Bank of Iceland.

Chart VI-10  
One-year inflation expectations  
Q1/2012 - Q2/2018



Sources: Gallup, Central Bank of Iceland.

Chart VI-11  
Long-term inflation expectations  
Q1/2012 - Q2/2018



1. The value for Q2/2018 is the Q2 average to date.  
Source: Central Bank of Iceland.

ing to the Central Bank survey conducted in early May, respondents expected inflation to measure 2.6% in one year and 2.7% two years ahead.

### ... while long-term inflation expectations appear broadly in line with the target

In Gallup's spring survey of household inflation expectations, respondents were asked for the first time about their long-term inflation expectations. Their responses indicated that they expect inflation to average 3.5% over the next five years. Market agents' long-term inflation expectations appear broadly in line with the target, however. According to the Bank's May survey, market agents expect inflation to average 2.6% over the next five and ten years (Chart VI-11). Their long-term expectations have therefore changed very little in the past year, whereas the breakeven inflation rate in the bond market has risen somewhat over the same period. The ten-year breakeven rate has been 3.3% in Q2 to date, as opposed to an average of 3.2% in Q1/2018 and 2.3% in Q2/2017. Given that market agents' long-term inflation expectations have held broadly steady in the recent term, it is likely that part of the rise in the breakeven rate stems from an increase in the risk premium in the bond market.