

V Inflation

Inflation measured 1.9% in Q1/2016, in line with the forecast in the February *Monetary Bulletin*, and has now been below the Central Bank's 2.5% inflation target for over two years. House prices have been the main driver of inflation in the recent term. The appreciation of the króna and a marked improvement in terms of trade over the past two years have given firms greater scope to absorb cost increases. As a result, sizeable wage rises and increased economic activity have not yet surfaced in rising domestic goods and services prices to any significant degree. Wage costs will rise even further this year, and domestic demand is growing rapidly. It is not certain whether the factors that have contained inflationary pressures in the recent past will provide still further scope for firms to take on cost increases without raising prices. Although long-term inflation expectations have been gradually declining over the last few years, they remain somewhat above the inflation target and are broadly unchanged since February.

Recent developments in inflation

Inflation has subsided since the last *Monetary Bulletin*

Inflation has been below target for over two years and has subsided in recent months. It measured 1.9% in the first quarter of the year, in line with the forecast in the February *Monetary Bulletin*. Declining imported goods prices had the greatest impact on developments in the CPI during the quarter, largely due to the cancellation of import duties on clothing and footwear at the turn of the year, although petrol prices fell somewhat as well. The appreciation of the króna in the recent term has also reduced inflation. Pulling in the other direction during the quarter were rising house prices and public services prices.

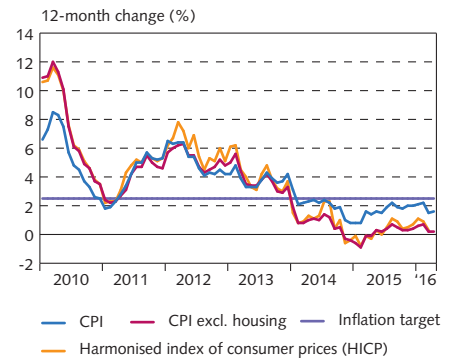
The CPI rose 0.2% month-on-month in April, bringing twelve-month inflation to 1.6%, or 0.6 percentage points less than at the time of the last *Monetary Bulletin* (Chart V-1). In April, the main drivers of inflation were the rise in petrol prices and the housing component. Twelve-month inflation excluding housing measured only 0.2% in April and has fallen somewhat less than headline inflation since January. HICP inflation, which also excludes housing costs, was 0.3% in March.

Underlying inflation and other indicators of inflationary pressures

Domestic inflationary pressures have emerged mostly in house prices ...

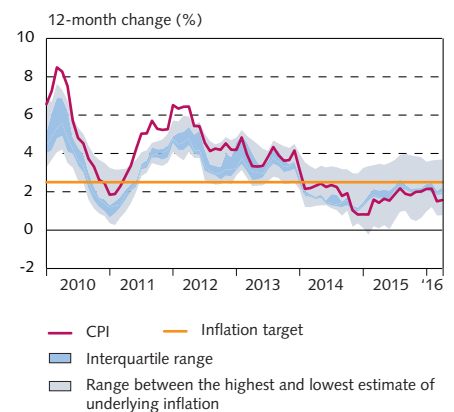
Underlying twelve-month inflation as measured by core index 3 (which excludes the effects of indirect taxes, volatile food items, petrol, public services, and real mortgage interest expense) has been at or below target since autumn 2014 and measured 1.9% in April. It has declined since the publication of the February *Monetary Bulletin*, as have most other measures of underlying inflation. Statistical measures of underlying

Chart V-1
Various measures of inflation
January 2010 - April 2016



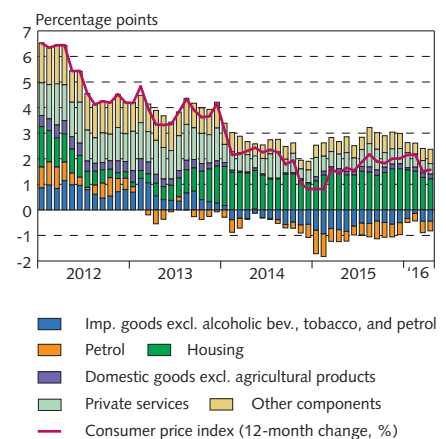
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-2
Headline and underlying inflation¹
January 2010 - April 2016



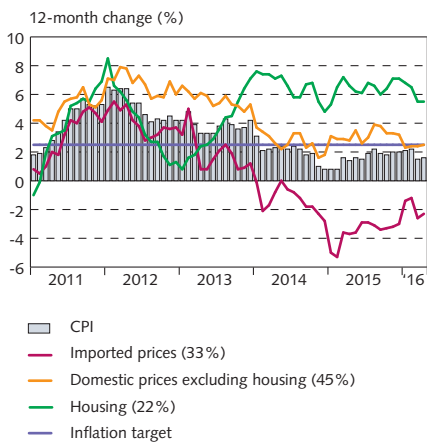
1. The shaded area includes different measures of underlying inflation; core indices that exclude the effects of volatile food items, petrol, public services and owner-equivalent rent and statistical measures such as the weighted median, the trimmed mean and a dynamic factor model.
Sources: Statistics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

Chart V-3
Components of CPI inflation
Contribution to inflation January 2012 - April 2016



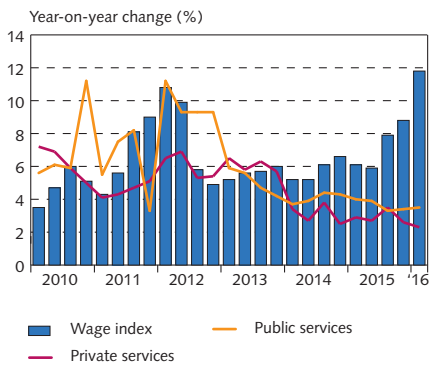
Source: Statistics Iceland.

Chart V-4
Imported and domestic inflation¹
January 2011 - April 2016



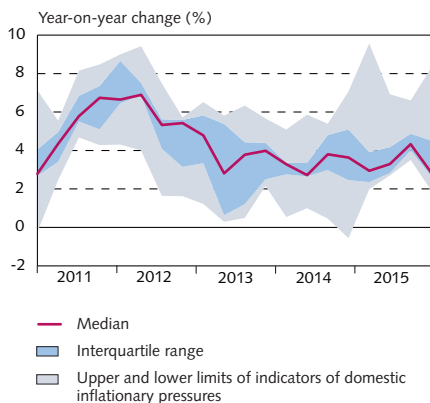
1. Imported inflation is estimated using imported food and beverages and the price of new motor vehicles and spare parts, petrol, and other imported goods. Domestic inflation is estimated using the price of domestic goods and the price of private and public services. The figures in parentheses show the current weight of these items in the CPI. Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-5
Developments in wages and services prices
Q1/2010 - Q1/2016



Source: Statistics Iceland.

Chart V-6
Domestic inflationary pressures¹
Q1/2011 - Q4/2015



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. Sources: Statistics Iceland, Central Bank of Iceland.

ing inflation have also fallen since January. They lay in the 1½-3½% range in April (Chart V-2).

Inflation has been driven by rising house prices in the recent term (Chart V-3), as inflation excluding housing has averaged only 0.4% during the current episode of below-target inflation. The twelve-month rise in the housing component of the CPI measured 5.5% in April. Large pay increases in the past year, rising real wages, and growing economic activity have given the real estate market a boost (see Chapter III) but have not yet led to steep increases in goods and services prices (Chart V-4). Domestic goods prices rose by approximately 2% year-on-year in Q1/2016, and private services prices were up about 2.3%. It is noteworthy that services inflation thus measured is at its lowest since the beginning of 2004. Public services prices have risen more strongly between years, however, or by 3.5% in Q1. Some municipalities have cited contractual wage increases in connection with price list increases, but some public services are more labour-intensive than private services (Chart V-5). Increased domestic cost pressures have not been reflected in larger increases in the production price of domestically sold goods, which fell by 0.5% year-on-year in Q1, after a notable increase in the recent term. Chart V-6 shows that in terms of the median of several different factors that reflect domestic costs, domestic inflationary pressures had subsided quarter-on-quarter at year-end 2015 and were also less pronounced than at year-end 2014. The distribution of the various measures has increased markedly, however.

... as a stronger króna and an improvement in terms of trade offset the cost effects of wage settlements

It is clear that the appreciation of the króna in the recent past and the decline in the price of imported goods, oil in particular, have kept price increases in check in the wake of cost pressures stemming from pay rises. Imported goods prices have fallen by 2.3% in the past twelve months, whereas the króna has appreciated by more than 9% over the same period. As is discussed in Box 5, these are the main reasons inflation has remained below target for the past two years. Given how low domestic inflation excluding housing has been, it is likely that strong effects from the króna appreciation and global deflation can also be seen in measures of domestic inflation, including reductions in the price of both imported inputs used to produce domestic goods and domestic goods that compete with similar imported goods. The marked improvement in terms of trade over the past two years has therefore enabled many firms to absorb cost increases without passing them through to prices (see also Box 1). As a result, inflation has not yet risen as much as was previously projected. Indications of greater scope to take on cost increases can also be seen in a recent Gallup survey of the current situation and outlook, conducted among corporate executives in February. According to the survey, 45% of respondents indicated that their margins had increased in the past six months and only 16% said they had declined. Participants were considerably more upbeat than in a comparable survey carried out last autumn.

Some indicators suggest that changes in the inflation outlook are on the horizon, however. According to the Gallup survey, about

half of executives anticipate needing to raise their goods and services prices in the next six months, as opposed to 42% in the autumn 2015 survey. This percentage has risen steadily over the past two years and is now at its highest since March 2012 (Chart V-7). Furthermore, price increases have grown somewhat more frequent in the recent past, with an average of 52% of CPI subcomponents rising monthly in Q1 a slight increase since year-end 2015 (Chart V-8).

Wages are considered to have risen somewhat less than projected in 2015 ...

The private sector pay increases provided for in the January wage settlements have affected the wage index as was provided for in the last forecast, and wage drift has been broadly as projected. The wage index rose by 4% quarter-on-quarter and 11.8% year-on-year in Q1/2016; however, it should be noted that the twelve-month rise includes two contractual pay increases in the private sector.

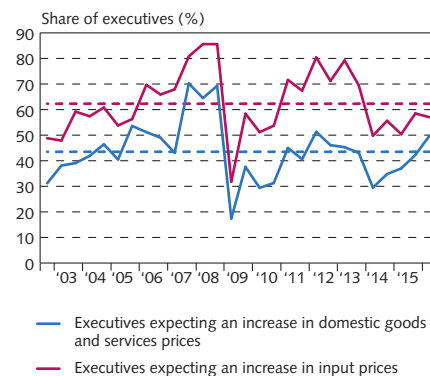
As is discussed in Box 2, the first estimates from Statistics Iceland indicated that wages per hour rose 5.5% in 2015, about half of the 10.4% projected in the February *Monetary Bulletin*. It is likely that they rose more than this, however, given the size of the negotiated pay increases. In addition, this increase is smaller than the year-on-year rise in the wage index, which was 7.2%. Furthermore, it is unlikely, given the pay rises provided for in the 2015 wage settlements and the low level of productivity growth, that the wage share declined between years, as the Statistics Iceland estimates indicate, notwithstanding the considerable improvement in terms of trade, as is discussed in Box 1. In view of this and other indications of wage developments, the forecast presented here assumes that wages per hour rose somewhat less than previously forecast, or about 9%. The wage share is therefore estimated to have been just under 63% of gross factor income last year, an increase of 1½ percentage points since 2014 (Chart V-9). According to the forecast, it will rise still further this year and over the coming two years.

... but are expected to continue rising strongly this year

Wage increases in 2016 and the following two years are assumed to be broadly in line with the last forecast, even though this year's twelve-month rise will be larger, owing to base effects from the smaller increase in 2015. Given the tension that appears to be developing in the labour market (see Chapter IV), wage drift could be underestimated in the forecast, particularly later in the forecast horizon.

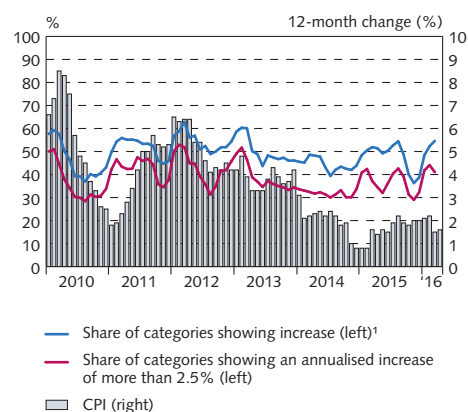
The smaller than previously assumed wage increase in 2015 leads to a similar revision of the increase in unit labour costs. As wage increases for this year have not been revised, the base effects from last year lead to stronger growth in unit labour costs in 2016 compared to the February forecast. The rise in 2016 is assumed to be just under 10%, an increase of ½ a percentage point from February (Chart V-10). Growth in the next two years is expected to be broadly in line with the February forecast, however, at about 5% per year.

Chart V-7
Corporate expectations of input and product prices six months ahead 2002-2016¹



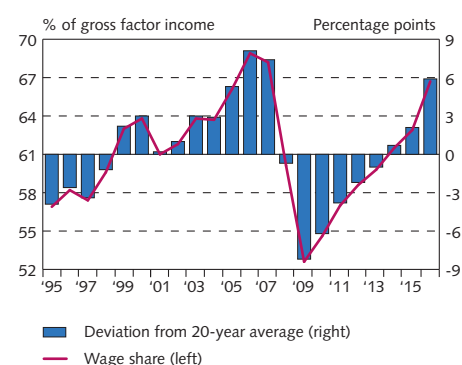
1. Broken lines show averages from 2002.
Source: Gallup.

Chart V-8
Distribution of price increases in the CPI
January 2010 - April 2016



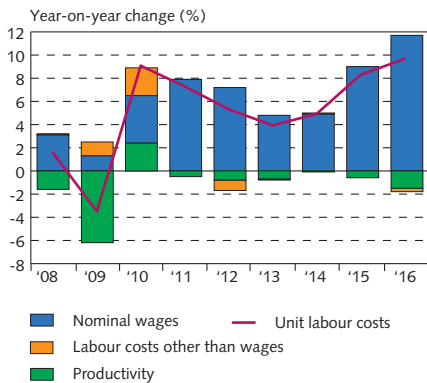
1. The share of goods categories that rise in price is a 3-month centred average.
Source: Statistics Iceland.

Chart V-9
Wage share 1995-2016¹



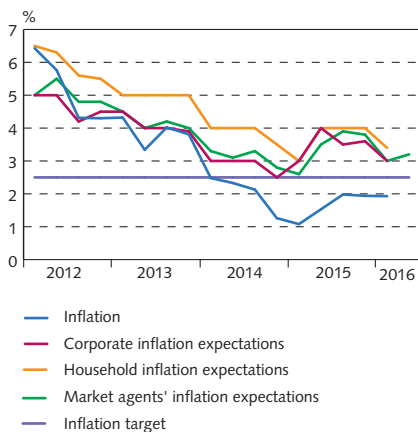
1. Wages and related expenses as a share of gross factor income. The 20-year average is 60.8% (1995-2014, base 1997). Central bank baseline forecast 2015-2016.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-10
Unit labour costs and contribution of underlying components 2008-2016¹



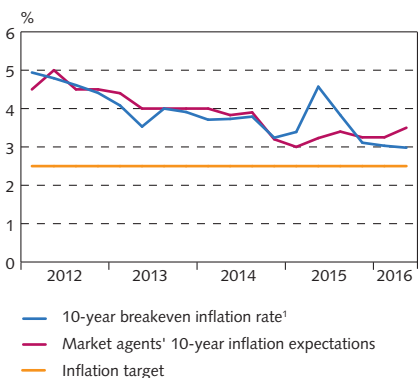
1. Labour productivity growth is shown as a negative contribution to an increase in unit labour costs. Central Bank baseline forecast 2015-2016. Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-11
Inflation and inflation expectations one year ahead
Q1/2012 - Q2/2016



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

Chart V-12
Long-term inflation expectations
Q1/2012 - Q2/2016



1. The value for Q2/2016 is the Q2 average to date. Source: Central Bank of Iceland.

Inflation expectations

Diverging developments in short-term inflation expectations ...

Short-term inflation expectations have fallen by several measures since the last *Monetary Bulletin* but are still above the inflation target, even though both observed and underlying inflation have been below target for over two years. According to the Gallup survey of corporate executives' inflation expectations carried out in February, respondents project inflation at about 3% one year ahead, a reduction of about 0.6 percentage points since the winter survey, conducted in November (Chart V-11). On the other hand, two-year inflation expectations were unchanged at 3.5%. Household inflation expectations appear to follow a similar pattern, although as before, households expect somewhat higher inflation than executives. According to the February Gallup survey, households expect inflation to measure 3.4% in one year, a 0.6 percentage point decline from the November 2015 survey. On the other hand, their two-year inflation expectations were unchanged at 4%.

According to the Central Bank's survey of market agents' inflation expectations carried out just before the publication of this *Monetary Bulletin*, respondents expect inflation to rise in the coming term. Survey participants expect inflation to measure 3.2% in one year, an increase of 0.2 percentage points since the February survey. Their expectations two years ahead measured 3.4%, about the same as in February. The two-year breakeven inflation rate in the bond market, as calculated from the spread between indexed and non-indexed bond interest, has remained broadly unchanged over the same period. The two-year breakeven rate averaged just over 3% in April. Recent developments in the short- and long-term breakeven inflation rate do not appear to have been as strongly affected by capital inflows into the bond market as they were for most of 2015 (see Chapter III). The breakeven rate should be interpreted with caution, however, as it contains both a risk premium related to bond liquidity and a risk premium reflecting uncertainty about inflation. It can be assumed that these risk premia have fluctuated somewhat in the recent past, resulting in changes to the breakeven rate that are unrelated to changes in market agents' inflation expectations.

... and long-term inflation expectations still somewhat above target

Market agents' long-term inflation expectations have slightly risen since February but have remained broadly unchanged in the past year. They expect inflation to average 3.5% over the next ten years, which is 0.2 percentage points higher than in February (Chart V-12). The breakeven inflation rate five and ten years ahead is somewhat below market agents' expectations, averaging about 3% in April. Inflation expectations have therefore remained relatively stable in the recent term, and it is possible that the short-term factors that have offset domestic inflationary pressures have also affected long-term expectations. Although inflation expectations have eased downwards in recent years, it appears that they have yet to be firmly anchored at target.