V Inflation

Inflation measured 2% in Q3/2015, somewhat below the projection in the August *Monetary Bulletin*. In recent months, however, it has risen in comparison with the first half of the year, owing mainly to increased house prices and domestic goods and services prices. The decline in global oil prices has lowered headline inflation markedly, however. Domestic inflationary pressures have increased in the wake of the recent wage agreements, although the appreciation of the króna and the decline in global goods prices have pulled in the opposite direction. It is not clear how persistent these effects will be, however, and near-term developments in wage costs are highly uncertain, owing to the possibility of a review of wage settlements. By most measures, inflation expectations are above the Bank's inflation target, although recent developments in inflation expectations have been somewhat ambiguous.

Recent developments in inflation

Inflation has been lower than expected

Inflation has been below the Bank's target since the beginning of 2014. It measured 2% in the third quarter of this year, somewhat less than was forecast in the August *Monetary Bulletin*. Excluding housing, prices were up by only 0.6% year-on-year in Q3. The deviation from the previous forecast is due mainly to the recent appreciation of the króna, as well as to a larger-than-expected drop in global oil prices. The decline in domestic petrol prices had a marked effect on the CPI during the quarter. Furthermore, the inflationary effects of the recent wage settlements appear thus far to be more modest than was assumed in the August forecast, probably due in part to the appreciation of the króna and the improvement in terms of trade in recent months.

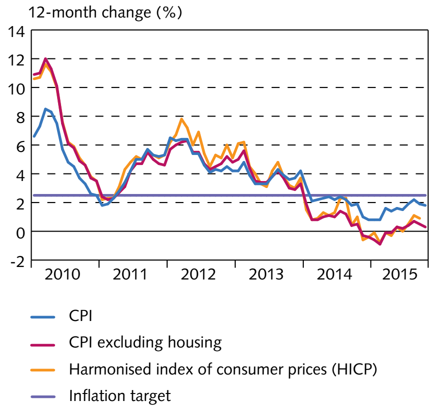
The CPI rose by 0.07% month-on-month in October, after falling by 0.4% in September. The unexpected decline in September was due mainly to a steep drop in airfares. In October, the main driver was rising house prices. Twelve-month inflation measured 1.8%, roughly unchanged since just before the publication of the August *Monetary Bulletin* (Chart V-1). Twelve-month inflation excluding housing has declined slightly since then, measuring 0.3% in October. Inflation in terms of the HICP (which also excludes housing costs) has been somewhat higher in recent months, with the twelve-month increase measuring 0.9% in September, up from 0.5% in July 2015.

Underlying inflation and other indicators of inflationary pressures

Domestic factors the main drivers of inflation

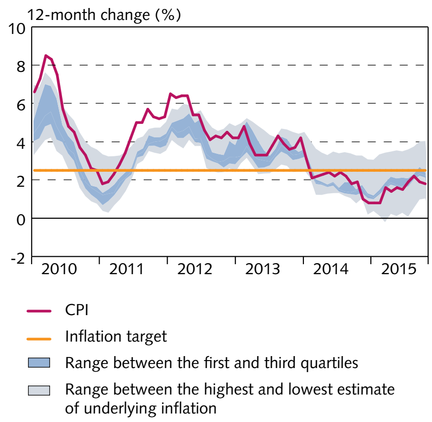
Underlying inflation has also risen since the beginning of the year, although it is still low by most measures. Underlying twelve-month inflation in terms of core index 3 (which excludes the effects of indirect taxes, volatile food items, petrol, public services, and real mort-

Chart V-1
Various measures of inflation
January 2010 - October 2015



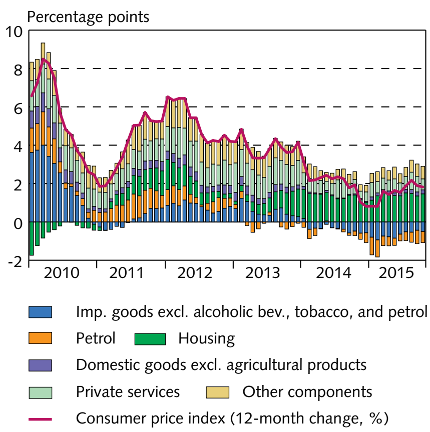
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-2
Headline and underlying inflation[1]
January 2010 - October 2015



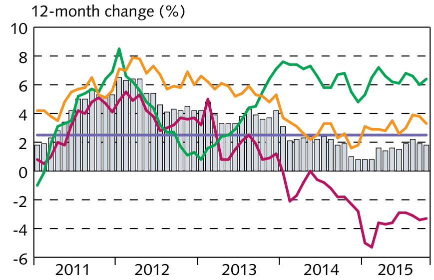
1. The shaded area includes different measures of underlying inflation; core indices that exclude the effects of volatile food items, petrol, public services and owner-equivalent rent and statistical measures such as the weighted median, the trimmed mean and a dynamic factor model.
Sources: Statistics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

Chart V-3
Components of CPI inflation
Contribution to inflation January 2010 - October 2015



Source: Statistics Iceland.

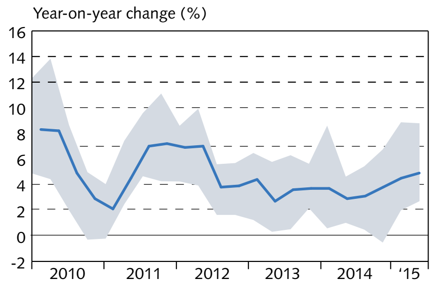
Chart V-4
Imported and domestic inflation[1]
January 2011 - October 2015



CPI
Imported prices (32%)
Domestic prices excluding housing (45%)
Housing (23%)
Inflation target

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.

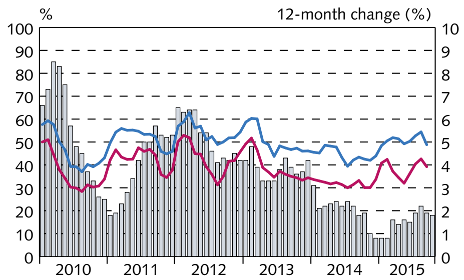
Chart V-5
Domestic inflationary pressures[1]
Q1/2010 - Q2/2015



Average
Upper and lower limits of indicators of domestic inflationary pressures

1. Upper and lower limits of five indicators of domestic inflationary pressures. The indicators are unit labour costs, 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.

Chart V-6
Distribution of price increases in the CPI
January 2010 - October 2015



Share of categories showing increase (left)[1]
Share of categories showing an annualised increase of more than 2.5% (left)
CPI (right)

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

gage interest expense) measured 1.9% in October and, if the market price of housing is also excluded, about 0.6%. Statistical measures of underlying inflation suggest that it lies in the 2-4% range and is unchanged, on average, since July (Chart V-2).

The main drivers of rising inflation year-to-date have been domestic price increases in, for instance, housing, private services, and domestic goods. Higher house prices explained more than ¾ of twelve-month inflation in October and increased prices of private services and domestic goods about ⅔, whereas falling prices of imported goods, oil in particular, have pulled strongly in the opposite direction (Chart V-3). Domestic inflationary pressures appear to have increased somewhat in recent months, as domestic inflation (excluding housing) was 3.3% in October, as opposed to 3% in July. On the other hand, imported goods prices had fallen by 3.3% year-on-year in October. By this measure, the difference between domestic and imported inflation has widened (Chart V-4). Chart V-5 also shows that, in terms of the average of several different factors reflecting domestic costs, domestic inflationary pressures had increased steadily from mid-2014 through Q2/2015. Closer scrutiny of the distribution of price increases across CPI components reveals similar developments: even though inflation is still low, on average, more than half of CPI components have risen every month so far this year, as was the case in 2013, when average inflation was much higher, or 3.9% (Chart V-6).

Other indicators also imply that cost pressures have increased. Producer prices of goods sold domestically rose 4.3% year-on-year in Q3, as opposed to 3.3% in Q2. According to the results of Gallup's autumn survey, carried out in August and September, about 42% of corporate executives expected their goods and services prices to increase in the upcoming six months, as opposed to 37% in the spring survey, conducted in March. By the same token, nearly 60% of firms expected input prices to rise in the next six months, as compared with 50% in March (Chart V-7).

Króna appreciation and falling global goods prices offset increased cost pressures

Increased domestic inflationary pressures can be attributed in large part to the pay increases negotiated in the recent wage settlements. Thus far, however, the appreciation of the króna in recent months and the drop in imported goods prices seem to have offset most of the inflationary effects of these cost increases. It is possible that the appreciation currently passes through to the price level more strongly than often before, as it is based largely on economic fundamentals and occurs in spite of the Central Bank's sizeable foreign currency purchases (see Chapter III). In view of this, firms could consider the appreciation more persistent than those occurring in previous upswings.

The composition of inflation is reminiscent of the situation in 2003-2005, however, when headline inflation was low partly because the króna had appreciated and imported inflation was low at a time of strong domestic inflationary pressures, which emerged, among other things, in steeply rising house prices. When the exchange rate gave way in 2006, inflation rose rapidly. In view of the significant inflationary pressures deriving from the labour market at present and the widening positive output gap, it is relatively likely that headline inflation does not fully reflect the existing underlying inflationary pressures. The outlook is for inflation to rise again once the effects of reduced global goods prices taper off (see the discussion of the risk profile for the inflation forecast in Chapter I).

Wage costs probably underestimated

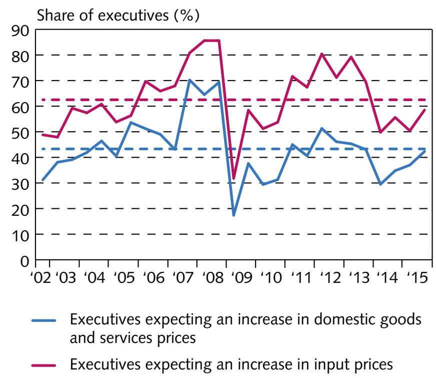
In September, Statistics Iceland published revised wage cost figures based on the national accounts for 2007-2014. National accounts figures for wages and related expenses usually change somewhat with each revision (Chart V-8). The most recent revision shows that, on average, wages per man-year were somewhat higher than previously estimated during the period in question, but the impact of the revision varies from year to year. The wage share (wages and related expenses relative to gross factor income) was 62.2% in 2014, an increase of more than 2 percentage points year-on-year (Chart V-9). It was then 1.3 percentage points above its twenty-year average, and if the baseline forecast materialises, by 2018 it will be broadly in line with the pre-crisis peak from 2006-2007.

The pay increases provided for in the recently concluded wage agreements have surfaced in the wage index, as was assumed in the last forecast, and wage drift has been broadly as projected (for further information on the assessment of wage developments, see Box 4). The wage index rose in Q3/2015 by 3.5% quarter-on-quarter and by 7.9% year-on-year.

The arbitration panel ruling that applied to most members of the Association of Academics and the Icelandic Nurses' Association entailed pay increases much larger than those provided for in the private sector wage agreements from previous months, which were nonetheless sizeable. The cost increases deriving from the contracts reached with large public sector unions in late October are similar to those provided for in the arbitration panel ruling. The review clause in the wage agreements might therefore be triggered, as one of the premises for those agreements was that the wage policy provided for would serve as a guideline for other collective bargaining negotiations. The social partners have therefore been engaged in discussions in an attempt to reach an agreement on changes in wages and rights, thereby forestalling early termination of wage agreements next February, when the review clause is to be invoked. An agreement has been signed concerning a change in the procedure for wage settlements, but a final conclusion has not been reached concerning how the contract review next February will be handled. All ideas on this topic that have been discussed entail a larger rise in wage costs than was assumed in the August forecast, and the assumptions in the current forecast take account of some of these ideas. Furthermore, the pay rises in public sector wage agreements are larger than was assumed in the last forecast, owing to the arbitration panel ruling and the agreements reached with State employees in late October.

Chart V-7

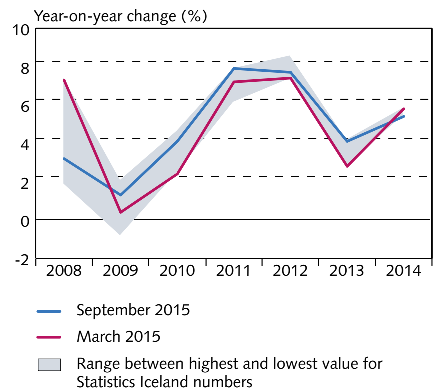
Corporate expectations of input and product prices six months ahead 2002-2015[1]



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

Chart V-8

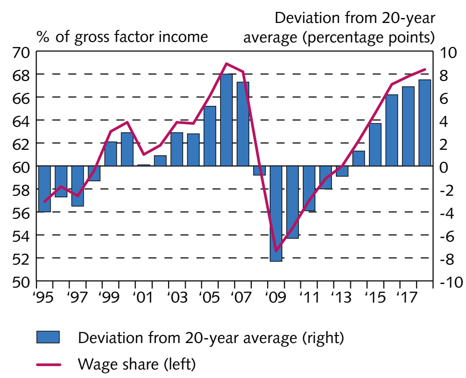
Wages per man-year



Sources: Statistics Iceland, Central Bank of Iceland.

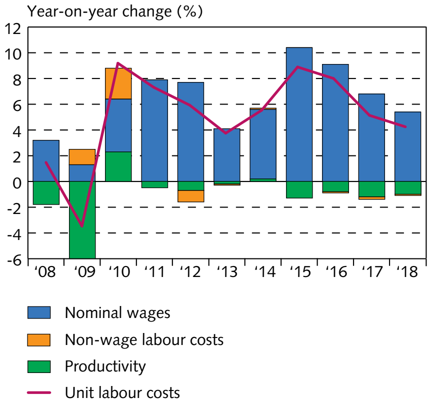
Chart V-9

Wage share 1995-2018[1]



1. The 20-year average is 60.9% (base 1997). Central Bank baseline forecast 2015-2018.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-10
Unit labour costs and contribution of underlying components 2008-2018[1]

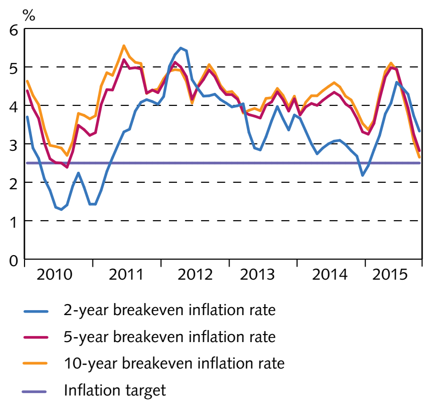


1. Labour productivity growth is shown as a negative contribution to an increase in unit labour costs. Central Bank baseline forecast 2015-2018.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-11
Inflation and inflation expectations one year ahead
Q1/2010 - Q4/2015

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

Chart V-12
Breakeven inflation rate[1]
January 2010 - October 2015



1. Forward breakeven inflation rate based on nominal and indexed yield curves (monthly averages). The breakeven rate indicates the expected annual inflation rate in two, five, and ten years.
Source: Central Bank of Iceland.

As in the August forecast, it is assumed that the pay rises will be retroactive to the beginning of May. Therefore, wages will rise more during the contract period than was forecast in August. On the other hand, if the agreements reached are in line with the ideas discussed by the social partners, they will entail larger pay hikes than are provided for in the current forecast. Given the tension that appears to be developing in the labour market, wage drift could also be underestimated in the forecast. Although wages will rise somewhat more in 2015 than was projected in August, the increase between annual averages is broadly in line with that forecast, as new figures from Statistics Iceland show that wages were higher, on average, in 2014 than earlier figures had indicated. Unit labour costs are therefore expected to increase by 9% this year, as in August, and by 8.1% next year instead of the previously forecasted 7.4% (see Chapter IV and Chart V-10).

Inflation expectations

Developments in inflation expectations highly uncertain

Inflation expectations had risen considerably by most measures at the time the August *Monetary Bulletin* was published. Developments since then have been somewhat ambiguous, however, possibly due to increased uncertainty about domestic price developments. The breakeven inflation rate in the bond market, as calculated from the difference between interest rates on indexed and non-indexed bonds, has fallen since August. Although the decline probably reflects to some extent the appreciation of the króna, low global inflation, and reduced pessimism about inflation in comparison with the period prior to the wage settlements, it is difficult to interpret developments in the breakeven rate, as it is also affected by the recent surge of capital inflows, which has led to a marked decline in yields on long nominal Treasury bonds (see Chapter III and Box 1). The breakeven inflation rate two years ahead averaged 3.3% in October, having declined by 1 percentage point since August. The same does not apply to market agents' short-term inflation expectations. According to the Bank's late-October survey of market agents' inflation expectations, conducted just before the publication of this *Monetary Bulletin*, respondents expected inflation to measure 3.8% one year ahead, which is 0.1 percentage points less than in the August survey (Chart V-11). Their inflation expectations two years ahead measured 4% or ½ a percentage point higher than in August. These results therefore indicate that only a small part of the decline in the breakeven rate can be contributed to a real decline in inflation expectations.

Similar developments can be seen in Gallup's autumn survey among corporate executives, who projected inflation at 3.5% one year ahead, a decline of ½ a percentage point since this summer. Their inflation expectations two years ahead rose slightly, however, and also measured 3.5%. Households appear to expect slightly higher inflation in the coming term. According to the survey carried out in September, their inflation expectations one and two years ahead were unchanged since last summer, at 4%.

Market agents' long-term inflation expectations are broadly unchanged

Indications of long-term inflation expectations are also somewhat ambiguous. Market agents expect inflation to average just under 3½% in the next ten years, which is broadly similar to their response in August. On the other hand, the ten-year breakeven inflation rate in the bond market has declined, averaging 2.7% in October, just over 1 percentage point lower than in August (Chart V-12). The above-mentioned effects of foreign capital inflows into the domestic bond market are also a factor here. In addition, it is possible that the short-term factors that have caused inflation to turn out lower than expected have spread to long-term inflation expectations to some extent.