VI Inflation

Inflation measured 2.7% in Q3/2018, slightly less than was forecast in August. The composition of inflation has changed markedly since last year, as the rise in house prices has eased and the contribution from other factors has increased accordingly. Imported inflation has risen, as the króna has weakened since August and global oil prices have continued to rise. Domestic goods prices have also risen recently, although the contribution of private services to inflation remains small. Even though wage increases have slowed in 2018 to date, they remain sizeable, and the outlook for the forecast horizon is coloured by uncertainty about upcoming wage settlements. Inflation expectations have risen year to date, and long-term inflation expectations are markedly above the target.

Recent developments in inflation

Q3 inflation slightly below the previous forecast

Inflation has been close to the target for most of this year. It measured 2.7% in Q3, some 0.1 percentage points below the forecast in the August *Monetary Bulletin*. Although the rise in house prices has slowed in the recent term, the housing component was the one that most strongly affected the CPI during the quarter. More than half of the effect of house price increases could be traced to price increases in regional Iceland. Moreover, a portion of the rise in the housing component was due to paid rent, which has risen by just over 6% in the past twelve months. Pulling in the opposite direction was the seasonal decline in airfares.

Inflation has picked up over the course of the year, measuring 2.8% in October (Chart VI-1). An increase in the price of new motor vehicles was the main factor in the 0.6% month-on-month rise in the CPI in October, together with a rise in housing and food prices. Pulling in the opposite direction was a decrease in road tolls. Inflation excluding housing measured 1.7% in October, and the difference between inflation with and without housing is close to its smallest since summer 2014, although it is still above its long-term average of ½ a percentage point. The HICP, which also excludes owner-occupied housing costs, rose 1.2% year-on-year in September.

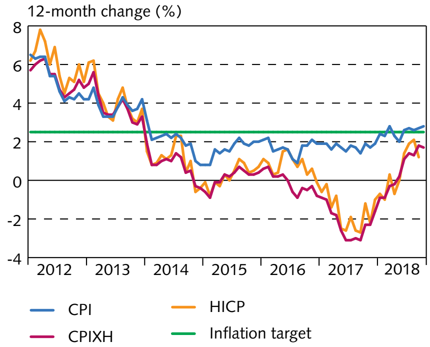
Inflation has therefore risen since October 2017. In terms of the CPI, inflation has risen by 0.9 percentage points, but the increase is even greater in terms of indices that exclude owner-occupied housing costs. According to such indices, there was considerable deflation a year ago.

Underlying inflation and other indicators of inflationary pressures

Underlying inflation has risen in the past year

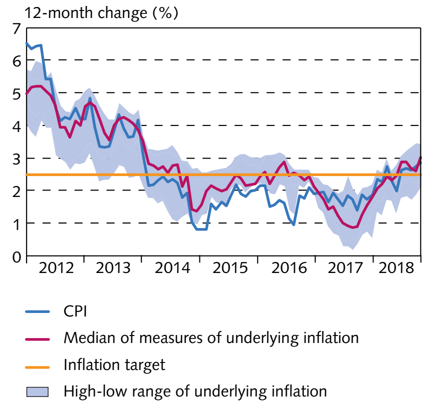
Underlying inflation measured 3% in October, according to the median of various measures, and had risen by 1.8 percentage points since October 2017 (Chart VI-2). By this measure, it is at its highest since

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



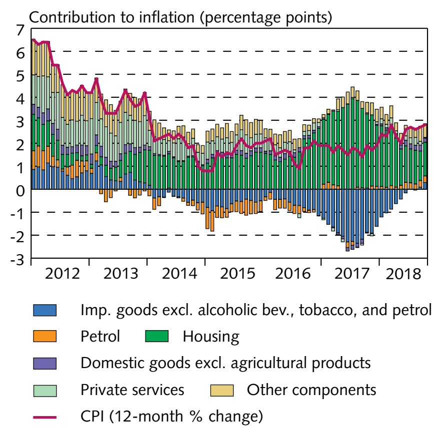
Sources: Statistics Iceland, Central Bank of Iceland.

Chart VI-2
Headline and underlying inflation[1]
January 2012 - October 2018



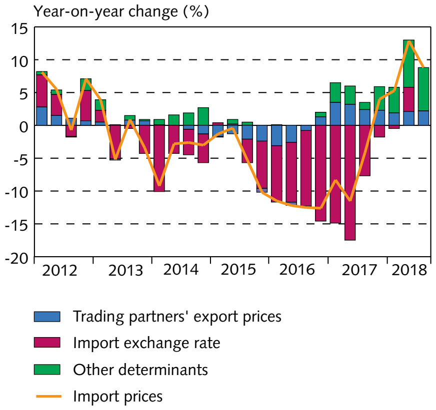
1. Underlying inflation measured using a core index (which excludes the effects of indirect taxes, volatile food items, petrol, public services, and real mortgage interest expense) and statistical measures (weighted median, trimmed mean, a dynamic factor model, and a common component of the CPI).
Sources: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

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



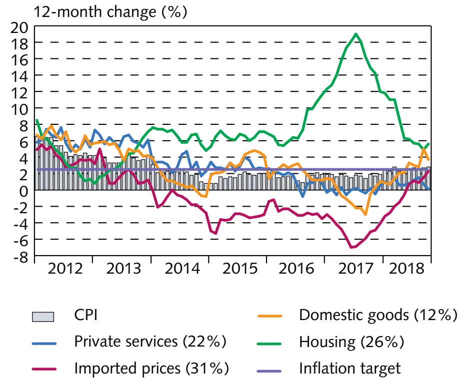
Source: Statistics Iceland.

Chart VI-4
Import prices and their determinants[1]
Q1/2012 - Q3/2018



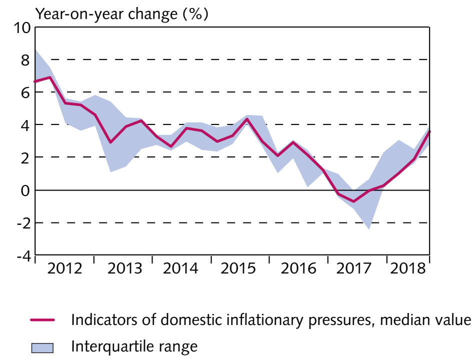
1. Central Bank baseline forecast Q3/2018.
Sources: Statistics Iceland, Thomson Reuters, Central Bank of Iceland.

Chart VI-5
Imported and domestic inflation[1]
January 2012 - October 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[1]
Q1/2012 - Q3/2018



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 Q3/2018 for the GDP price deflator and for unit labour costs.
Sources: Statistics Iceland, Central Bank of Iceland.

January 2014. Underlying inflation has therefore risen in the recent term, as has headline inflation, while house price inflation has simultaneously lost momentum. As a result, the composition of inflation has changed somewhat, with the contribution from the housing component declining sharply since the beginning of 2018, whereas other components have begun to contribute accordingly more (Chart VI-3). In October, owner-occupied housing costs had risen by 5.5% year-on-year, and about half of twelve-month inflation was due to the housing component (see Chapter III).

Import prices have surged in the recent past …

Imported inflationary pressures have increased markedly in the recent past, as the króna has depreciated by some 10% since the last *Monetary Bulletin*. In addition, global oil prices have continued to rise, as has trading partner inflation (see Chapter II). As a result, all factors are pulling in the same direction as regards the current outlook for imported goods and services prices, which are estimated to have risen by 8.8% year-on-year in Q3 (Chart VI-4). This is a significant change since Q3/2017, when import prices fell by over 4% year-on-year in krónur terms. In part, this reflects the impact of rising trading partner export prices, which is augmented by the fact that the effects of past appreciation of the króna have gradually disappeared. Furthermore, it appears that mark-ups on import prices have increased, as can be seen in that prices have risen more than can be explained by global price hikes and the exchange rate of the króna.

The price of imported goods in the CPI has risen by 2.3% in the past twelve months, and the contribution to headline inflation is about 0.7 percentage points (Chart VI-5). Most subcomponents of imported goods have risen somewhat in price in recent months, although clothing and footwear prices, for instance, were lower in October than they were a year earlier. Petrol prices in Iceland have risen by 16% between years, directly adding roughly 0.3 percentage points to headline inflation in October. On top of this comes the indirect effect of higher oil prices on other goods and services, such as airfares.

… and more executives expect to have to raise product prices

There is the risk that increased imported input costs, which stem from rising oil prices and the depreciation of the króna, will prompt domestic firms to raise prices. Costs have also risen in the recent past because of large pay hikes. The price of domestic goods in the CPI has risen by some 3.7% in the past twelve months, whereas it had risen by about 1.7%, on average, in H1/2018. This is in line with the recent increase in producer prices of goods sold domestically, which measured 2.8% year-on-year in Q3. The contribution of private services to headline inflation is still limited, in spite of growing domestic inflationary pressures (Chart VI-6). The decline in international airfares has played a major role, and in October, the year-on-year reduction was similar to that a year ago. Telephone services prices have also fallen markedly at the same time (Chart VI-7).

Gallup's autumn survey of Iceland's 400 largest companies also suggests that inflationary pressures are on the rise. About 56% of executives expected to need to raise their prices in the next six months, the largest share in ten years (Chart VI-8). About 70% of executives expected input prices to rise in the next six months, an increase from the previous survey. It was revealed in the survey that 76% of executives considered wage expense the main determinant of price increases for their own products, and 38% considered input prices to rank second. Furthermore, 35% of executives were of the opinion that competition and mark-ups had the greatest downward impact on prices (Chart VI-9).

Wage share well above the long-term average

In September, Statistics Iceland published production accounts figures on developments in wages and related expenses, including a minor revision of previous figures. Wages per hour worked are estimated to have risen by 8.3% in 2017, somewhat more than is indicated by either the general wage index, which rose by 6.8%, or the total wage index, which rose 6.5%.[1] In the August forecast, it was assumed that wages per hour worked rose by 7.5% in 2017, and because other measures of wage developments show smaller increases, this estimate has not been changed.

Although wages and related expenses changed slightly upon revision in September, the wage share declined in comparison with the national accounts as published in March. This is due largely to a revision of gross factor income. The wage share is now estimated at 63.1% in 2017, about 3½ percentage points higher than in 2016 and 3 percentage points above its long-term average.

The year-on-year rise in wages has slowed, but the outlook is highly uncertain

The year-on-year rise in wages has eased in 2018 to date, although it remains large. The general wage index rose by 6.1% year-on-year in Q3, and the total wage index was up 4.9% year-on-year in Q2 (Chart VI-10). In part, the more rapid decline in annual wage inflation as measured by the total wage index reflects base effects from bonuses paid by financial services companies last year. Those effects will be felt in the first three quarters of 2018. In addition, these are preliminary figures, and experience of the impact of revisions of the new index is still limited.

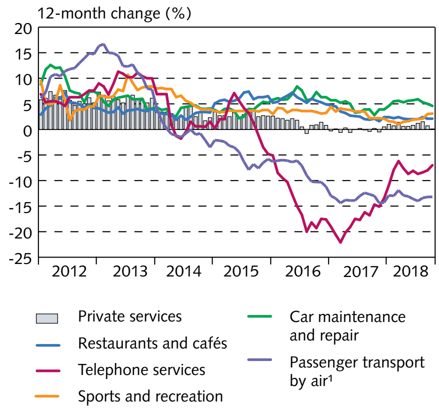
The baseline forecast assumes that total wage costs per hour worked will rise by an average of 7.8% this year. The outlook is for productivity growth of just over 2%; therefore, unit labour costs are projected to rise by 5.6%, about the same as in the August forecast but more than in the past two years (Chart VI-11). Near-term wage developments are very uncertain at present, in view of the status of upcoming wage negotiations. Demands for large pay hikes have been presented, but as is mentioned above, the wage share is above its historical average, and terms of trade have deteriorated. Furthermore, the outlook is for unemployment to inch upwards and for productivity growth to ease after three years of strong growth. Wage-earners' bar-

1. The new total wage index is discussed in greater detail in Box 4.

Chart VI-7

Private services and selected subcomponents of the CPI

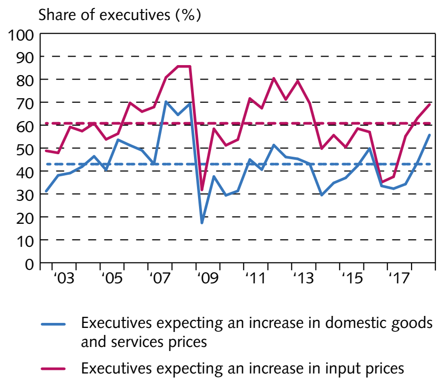
January 2012 - October 2018



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

Chart VI-8

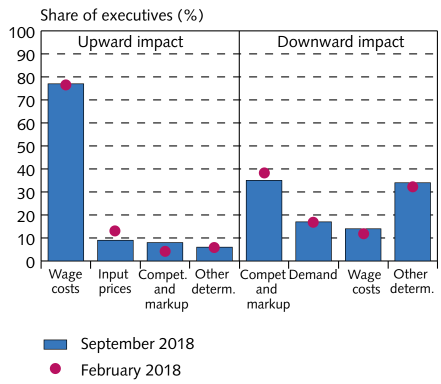
Corporate expectations of input and product prices 6 months ahead 2002-2018[1]



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

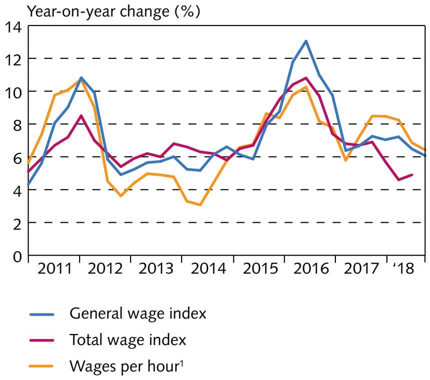
Chart VI-9

Firms' price setting decisions[1]



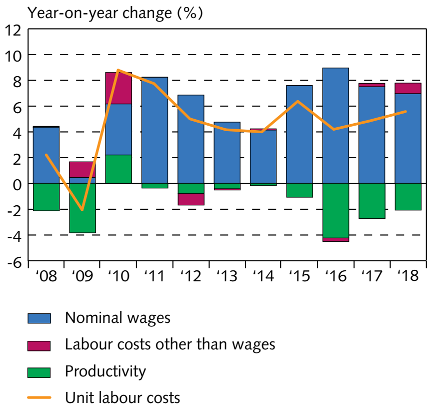
1. Executives' answers about which factors would have the strongest impact on price setting decisions over the coming six months.
Source: Gallup.

Chart VI-10
Different measures of wages
Q1/2011 - Q3/2018



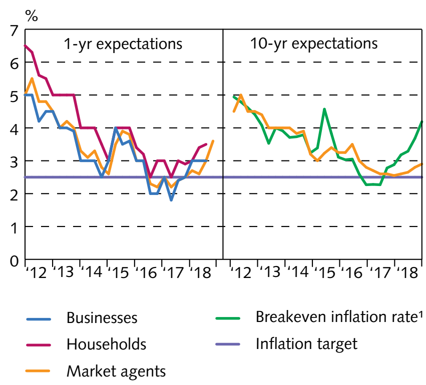
1. Wages per hour worked are based on annual figures for the wage portion of the "wages and related expenses" category from the production accounts, as a share of total hours worked according to the Statistics Iceland labour force survey. Estimate from Q4/2016.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart VI-11
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 2017-2018.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart VI-12
Inflation expectations
Q1/2012 - Q4/2018



1. The Q4/2018 figure is the average for the quarter to date.
Sources: Statistics Iceland, Central Bank of Iceland.

gaining position may therefore have weakened at a time when companies' scope to absorb pay increases has diminished.

Inflation expectations

Households' and businesses' short-term inflation expectations are unchanged between surveys but have risen in the past year

According to Gallup's autumn surveys, carried out in September, households and businesses expect inflation to measure 3-3.5% in one year's time and 3.5-4% in two years. This is unchanged from the previous survey but 0.5-0.8 percentage points higher than in surveys taken a year ago. Market agents' short-term inflation expectations have risen in the recent past (Chart VI-12). The one- and two-year breakeven inflation rate in the bond market has been 3.2-3.5% in Q4 to date, just under ½ a percentage point higher than in Q3 and nearly 1½ percentage points higher than a year ago. Market agents' inflation expectations according to the Central Bank's late October survey tell a similar tale, with respondents expecting inflation to measure 3.6% one year ahead and 3.2% two years ahead.

Long-term inflation expectations have risen markedly above the target

Households' and businesses' long-term inflation expectations have remained unchanged between surveys, after having been measured for the first time in H1/2018. Households expected inflation to average 3.5% over the next five years, and corporate executives expected it to measure 3%. Market agents' long-term inflation expectations have eased upwards in the recent past, however (Chart VI-12). According to the Bank's survey, respondents expected inflation to average about 3% in the next five and ten years, which is around ½ a percentage point higher than in the survey a year ago. The breakeven inflation rate in the bond market has also increased in recent months. The five-year breakeven rate has been 4% in Q4 to date, as opposed to 3.5% in Q3/2018 and 2.6% in Q4/2017.[2] The ten-year breakeven rate has developed similarly, although measuring higher, at 4.2%. Thus there are signs that inflation expectations have grown less securely anchored to the target in recent months.

2. The breakeven inflation rate is calculated based on the interest rate differential between indexed and non-indexed bonds. It should be interpreted with caution, however, as it also includes a risk premium related to bond liquidity, as well as a risk premium reflecting uncertainty about inflation. To some extent, the recent rise in the breakeven rate probably reflects a rise in the bond market risk premium.