

## VI Inflation

Inflation measured 2.8% in October and has fallen since the last *Monetary Bulletin*. Underlying inflation, however, has proven more persistent and is above headline inflation. The contribution from the housing component has weakened, and the rise in import prices has slowed. Even though the wage share is high, the outlook is for a gradual easing of domestic inflationary pressures: fewer firms expect to raise their product prices in the near future, and the outlook is for unit labour costs to rise less than previously assumed. Inflation expectations have also fallen in the recent past, and market expectations are at or near the inflation target.

### Recent developments in inflation

#### Inflation approaching the target

Inflation has subsided somewhat in recent months (Chart VI-1). It measured 3.1% in Q3, 0.1 percentage points below the August forecast. The main driver was the decline in petrol prices and airfares, which was offset by a rise in private services prices, partly due to seasonal factors such as price hikes at restaurants and cafés. Another factor was the rise in the housing component of the consumer price index (CPI), which stemmed from rising house prices (Chart VI-2). However, this was offset by the interest component of imputed rent, which has lowered inflation recently, as real mortgage interest expense has fallen in response to Central Bank rate cuts. As a result, the CPI is estimated to be 0.2-0.3 percentage points lower than it would be otherwise.

The CPI rose by 0.36% month-on-month in October, and twelve-month inflation eased to 2.8%. It is now at its lowest since September 2018, before the onset of difficulties in the airline industry and the ensuing depreciation of the króna. The strongest impact on the CPI in October was from the rise in house prices. The subcomponent for transport also rose somewhat month-on-month, mostly due to increases in new motor vehicle prices and airfares. Competition pressures in travel to and from Iceland appear to have made it more difficult for other airlines to raise airfares following the failure of WOW Air in March 2019. Since then, ticket prices are up almost 6% and are just over 1% higher than they were a year ago.

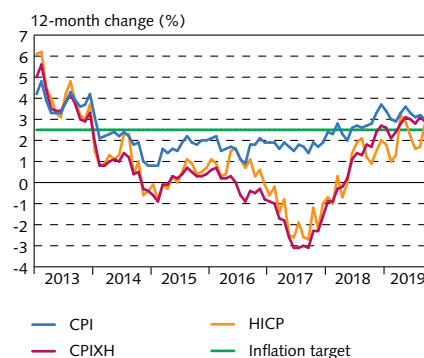
Inflation excluding housing measured 2.6% in October and has also fallen since the last *Monetary Bulletin*. The difference between inflation with and without housing is therefore small at present. HICP inflation, which also excludes housing, measured 2.8% in September.

### Underlying inflation and other indicators of inflationary pressures

#### Underlying inflation is above headline inflation

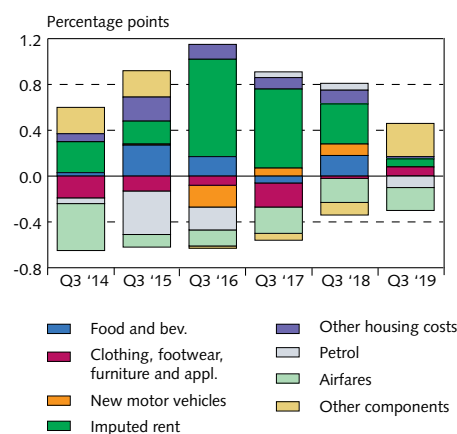
Headline and underlying inflation have followed broadly similar paths in the recent term but started to diverge somewhat this autumn. In October, underlying inflation in terms of the median of various measures was 3.4%, or 0.6 percentage points above headline inflation

Chart VI-1  
Various measures of inflation  
January 2013 - October 2019



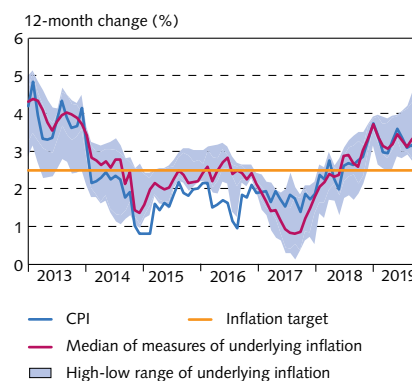
Sources: Statistics Iceland, Central Bank of Iceland.

Chart VI-2  
Subcomponents' effects on the CPI  
in Q3 2014-2019



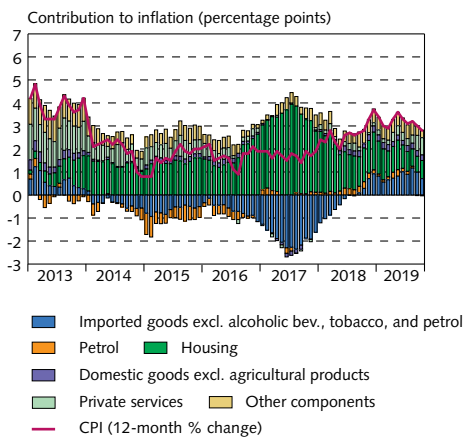
Source: Statistics Iceland.

Chart VI-3  
Headline and underlying inflation<sup>1</sup>  
January 2013 - October 2019



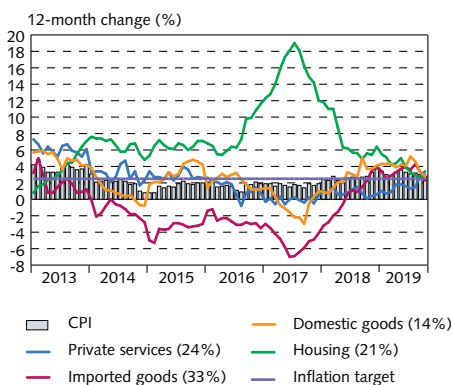
1. Underlying inflation measured using a core index (which excludes the effects of indirect taxes, volatile food items, petrol, public services, and real mortgage interest expense) and statistical measures (weighted median, trimmed mean, a dynamic factor model, and a common component of the CPI).  
Sources: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

Chart VI-4  
Components of CPI inflation  
January 2013 - October 2019



Source: Statistics Iceland.

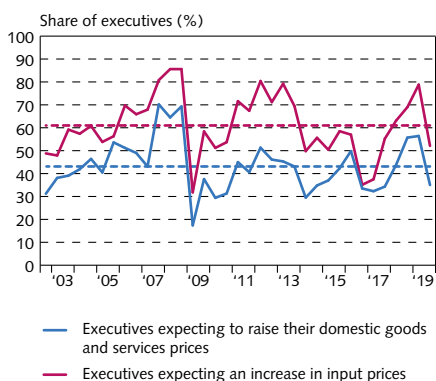
Chart VI-5  
Imported and domestic inflation<sup>1</sup>  
January 2013 - October 2019



1. Imported inflation is estimated using the price of imported food and beverages, 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  
Corporate expectations of input and product prices 6 months ahead 2002-2019<sup>1</sup>



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

(Chart VI-3). This is due in part to this past summer's drop in petrol prices, which are excluded from estimates of underlying inflation. The dispersion of various measures of underlying inflation has also increased recently, suggesting greater uncertainty about the estimates.

As is discussed in Chapter III, demand in the residential real estate market has eased concurrent with an increase in supply. Imputed rent, or owner-occupied housing expense, has risen by 2.6% in the past twelve months, and the pace of the increase has eased steadily in 2019 to date, even though it picked up somewhat in October. The contribution of the housing component to inflation has weakened since July. In October, housing accounted for just over one-fourth of twelve-month inflation (Chart VI-4).

### Imported inflation has tapered off again ...

The króna has been relatively stable since the last *Monetary Bulletin* and is slightly lower than it was a year ago. Imported inflation has eased in recent months, to 2.3% year-on-year in October (Chart VI-5). The twelve-month rise appears to have peaked at 4.3% in August and, in all categories of imported goods, has lost pace since. It is noteworthy that in general, firms appear not to have fully passed the autumn 2018 depreciation of the króna, measuring over 10%, through to prices. As is discussed in Box 2 on the findings from a recent survey of firms' pricing decisions, there are signs that a depreciation affects consumer prices less now than it did just over a decade ago. Furthermore, the survey results suggest that the impact of exchange rate movements on pricing decisions is more symmetric than it was previously. Various other factors have also reduced companies' need and opportunity to raise prices in response to recent cost increases; for instance, global disinflation, increased competition, and weaker economic activity. And finally, inflation expectations have become better anchored at the target (see below).

### ... and fewer executives expect to have to raise product prices

According to Gallup's autumn survey of executives from Iceland's 400 largest firms, the outlook is for a possible weakening of inflationary pressures in the coming term. Just over one-third of respondents expected to have to raise the price of their own goods and services in the next six months, as compared with more than half in the spring 2019 survey (Chart VI-6). The share of executives planning price hikes is now at its smallest in two years. Furthermore, fewer executives expect input prices to rise in the next six months. The survey revealed that 60% of respondents cite wage costs as the strongest factor in their decisions to raise their prices. This is a marked decline from the surveys taken in spring 2019 and autumn 2018 (both of which were carried out before private sector wage agreements had been finalised). Almost one-third of executives said that competition and markups were the strongest factor in decisions to lower their prices. This is a slight decline from the survey taken a year ago (Chart VI-7).

Indicators suggest that domestic inflationary pressures have peaked. The price of domestic goods in the CPI was up by 2.8% year-on-year in October, and the contribution of these goods to inflation

has weakened since the summer. The twelve-month rise in producer prices for goods sold domestically has also eased slightly, to just over 5% in Q3. On the other hand, the contribution of private services to inflation has increased in recent months and is similar to the contribution from the housing component. Private services prices have risen by 3.4% in the past twelve months, as compared with 1.3% in July.

### Wage share above its historical average

In September, Statistics Iceland published revised figures on wages and related expenses. According to the new figures, the wage level was an average of 0.5% lower in 1997-2018 than the previous numbers had indicated. The revision did not have the same impact on year-on-year wage changes, which were virtually the same as before. Statistics Iceland also published revised gross factor income figures, although the revision there was not as large. As a result, the wage share (the ratio of wages and related expenses to gross factor income) was slightly lower overall than previously assumed. It measured 63.7% in 2018, or 0.6 percentage points less than the previous figures had indicated. The 2018 figure was also 3.5 percentage points above the twenty-year average (Chart VI-9).

### Outlook for unit labour costs is largely unchanged

The impact on the general wage index of the wage agreements finalised in 2019 to date has been in line with the Bank's forecasts. Similarly, wage drift has been broadly as the Bank had projected. In Q3/2019, the wage index increased by 0.6% quarter-on-quarter and about 4.3% year-on-year (Chart VI-10). The year-on-year increase in wages has somewhat lost pace, partly reflecting the fact that wage settlements for public sector employees and a small segment of the private sector were still not concluded in Q3. A large proportion of those contracting parties reached an agreement to postpone negotiations until after the summer, in return for a one-off payment to wage-earners at the end of July. However, that one-off payment is not included in the wage index, which only takes into account regular payments made each month.

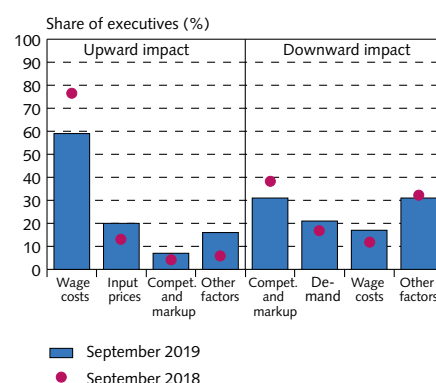
Although some public sector workers reached an agreement in late October, the general settlement with public workers is set to be concluded at a later date than was assumed in the Bank's August forecast. In other respects, the outlook for wage developments is largely unchanged. Wages per hour are expected to increase by 5.7% between annual averages in 2019, as opposed to 6.1% in the August forecast. The outlook for productivity growth has also improved slightly from the August forecast (see Chapter V), and as a result, unit labour costs will rise less than was forecast in August, or 6.1% instead of 6.8%.

## Inflation expectations

### Short-term inflation expectations have declined by most measures ...

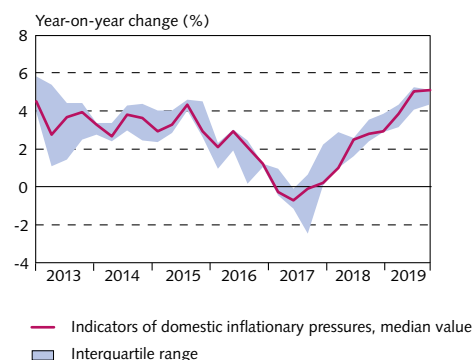
By most measures, short-term inflation expectations have fallen since August. According to Gallup's autumn survey, households' and businesses' one-year inflation expectations fell between surveys. House-

Chart VI-7  
Firms' price-setting decisions<sup>1</sup>



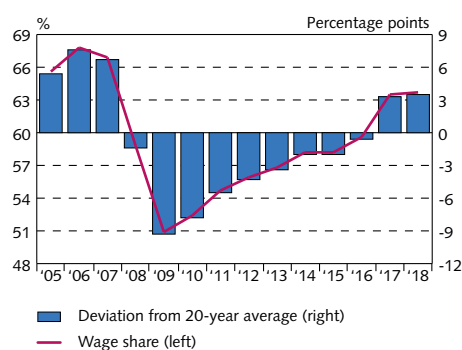
1. Executives' responses concerning which factors would have the strongest impact on their price-setting decisions over the coming six months.  
Source: Gallup.

Chart VI-8  
Domestic inflationary pressures<sup>1</sup>  
Q1/2013 - Q3/2019



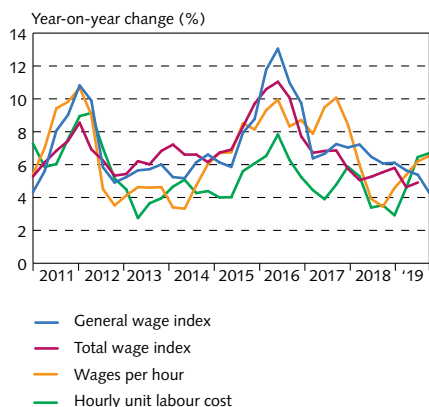
1. The shaded area includes five indicators of domestic inflationary pressures. The indicators are unit labour costs (moving average), the GDP price deflator, prices of private services and domestic goods, and producer prices of goods sold domestically. Central Bank baseline forecast Q3/2019 for GDP price deflator and unit labour costs.  
Sources: Statistics Iceland, Central Bank of Iceland.

Chart VI-9  
Wage share 2005-2018<sup>1</sup>



1. Wages and related expenses as a share of gross factor income. The 20-year average is 60.2% (1999-2018, base 1997).  
Sources: Statistics Iceland, Central Bank of Iceland.

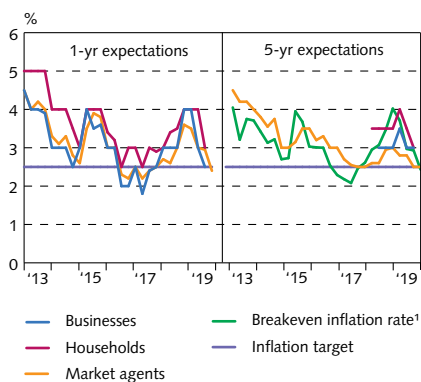
Chart VI-10  
Different measures of wages<sup>1</sup>  
Q1/2011 - Q3/2019



1. Wages per hour are based on annual figures for the wage portion of wages and related expenses according to the production accounts, as a share of total hours worked according to the Statistics Iceland labour force survey. Wages per hour and a four-quarter moving average for unit labour costs are based on Central Bank estimates for the first three quarters of 2019.

Sources: Statistics Iceland, Central Bank of Iceland.

Chart VI-11  
Inflation expectations  
Q1/2013 - Q4/2019



1. The most recent value is the average of daily values from 1 October through 1 November 2019.

Sources: Gallup, Central Bank of Iceland.

holds expect inflation to measure 3% in one year's time, and businesses' expectations have fallen back to the inflation target. Market agents' one- and two-year inflation expectations are also at target, as is the breakeven inflation rate in the bond market (Table VI-1 and Chart VI-11).<sup>1</sup>

### ... and long-term inflation expectations in the market have aligned with the target

According to Gallup's autumn survey, households and businesses expect inflation to average 3% over the next five years. In the case of households, expectations have fallen relative to the summer 2019 and autumn 2018 surveys. Market agents' long-term inflation expectations remain at target and are down by ½ a percentage point since autumn 2018. The five- and ten-year breakeven inflation rate in the bond market has fallen steeply in the recent past, to an average of 2.4% in Q4 to date. Significant progress has therefore been made in bringing inflation expectations back to target after the spike in late 2018.

Table VI-1 Inflation expectations (%)<sup>1</sup>

	Q4 2019	Q3 2019	Q4 2018	Q4 2019	Q3 2019	Q4 2018
	1 year			2 years		
Businesses	-	2.5	4.0	-	3.0	3.5
Households	-	3.0	4.0	-	3.2	4.0
Market agents	2.4	3.0	3.6	2.5	2.5	3.2
Breakeven inflation rate	2.7	3.1	3.5	2.5	3.0	3.8
	5 years			10 years		
Businesses	-	3.0	3.0	-	-	-
Households	-	3.0	3.5	-	-	-
Market agents	2.5	2.5	3.0	2.5	2.6	2.9
Breakeven inflation rate	2.4	2.8	4.0	2.4	2.7	4.1

1. The most recent Gallup surveys of corporate and household inflation expectations were carried out in September 2019, and the Central Bank's survey of market agents' expectations was conducted at the end of October 2019. Households and businesses are not asked about ten-year inflation expectations. The most recent figure for the breakeven inflation rate in the bond market is the average of daily values from 1 October to 1 November 2019.

Sources: Gallup, Central Bank of Iceland.

1. The breakeven inflation rate is calculated from the spread between indexed and nominal bond interest rates. It should be borne in mind, however, that the breakeven rate also includes a liquidity risk premium and an inflation risk premium.