

II.2. Accounting for inflation dynamics in the euro area

Introduction

Consumer price developments over the course of 2011 have displayed considerable volatility and surprised on the upside. This special topic therefore aims to assess the contributing factors to this year's consumer price inflation. It examines in particular the role that energy and other commodity prices have played in driving inflation. This section also reviews the effect of methodological changes to the measurement of the harmonised consumer price index (HICP), takes a look at labour cost developments and examines recent signals from survey- and market-based inflation expectations. Finally, the latest inflation outlook from the European Commission's autumn 2011 forecast is presented.

Inflation developments in the euro area

Despite the overall weak growth performance, the annual headline inflation rate in the euro area stood at 3.0% in October 2011, unchanged from September and at the highest level since October 2008. HICP inflation in the euro area rose in the second quarter of 2011 to 2.7% from 2.5% in the first. Over the course of the year a number of idiosyncratic factors stood out in the euro area's inflation path: a 0.2 pp decrease in the July headline figure was due to unusual price developments for seasonal products, which were also largely responsible for the bounce-back in the headline figure in September. As such, prices of seasonal items have been affected by a methodological change concerning the treatment of seasonal products (see Box II.2.1).⁽²⁴⁾ On the other hand, indirect taxation changes had a small positive impact on inflation over this period.⁽²⁵⁾

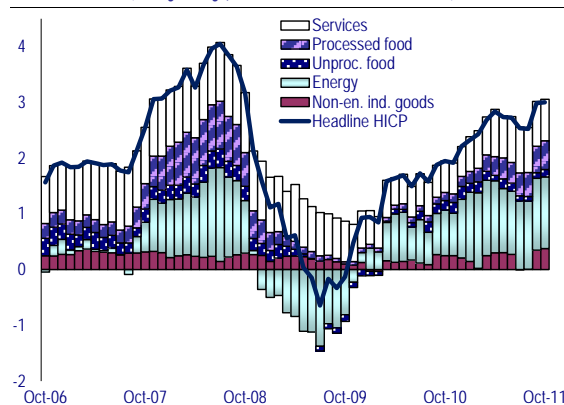
As shown in Graph II.2.1, energy price movements have accounted for a large portion of HICP inflation since late 2007, and have also driven the change in overall inflation. Annual energy inflation accelerated to 12.4% in October 2011, having dipped to 10.8% in June from a peak of 13.1% in February. Sharp price rises for Brent crude in 2011Q1 have driven this surge in energy inflation. Since increasing sharply between

⁽²⁴⁾ The estimated impact of this methodological change on the annual headline figure is 0.2 pp in July and August, but zero in June and September.

⁽²⁵⁾ Assuming full and immediate pass-through of tax changes, the impact on the headline figure fell in August by 0.2 pp (from 0.3 in July to 0.1 pp) and remained unchanged in September.

December 2010 and March 2011, oil prices have hovered around 80 euros per barrel. Brent remained 33% more expensive in euro terms in the period from May to October 2011 compared to the same period in 2010.

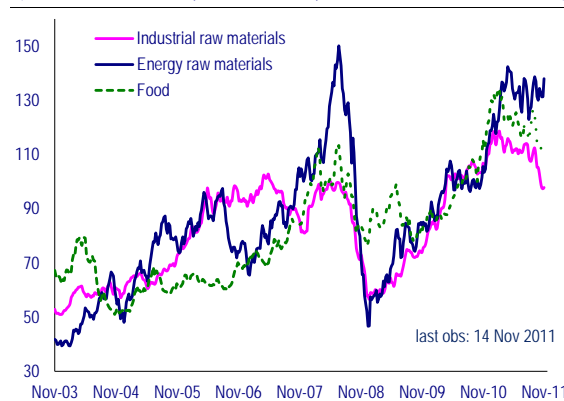
Graph II.2.1: HICP inflation and contributions, euro area (% y-o-y, Oct 2006-Oct 2011)



Source: Eurostat.

Geopolitical tensions in the Middle East and North Africa and changes in economic growth prospects contributed to these oil price developments. Arguably, the recent oil price shock since the end of 2010 can be considered more severe for the euro area than the one in 2007-08, due to its more protracted nature.⁽²⁶⁾ As Graph II.2.2 illustrates, other commodities prices followed a similar price pattern to oil until April, but have followed a declining trend since.

Graph II.2.2: Commodities prices, euro area (HWWI indices, 2010=100, Nov. 2003-Nov. 2011)



Source: Reuters EcoWin.

⁽²⁶⁾ For a detailed analysis of oil price developments in early 2011 and their impact on euro-area inflation differences, see European Commission (2011), 'Inflation developments in the euro area', Quarterly Report on the Euro Area, Vol. 10, No 1.

Box II.2.1: The impact of the new treatment of seasonal items in the HICP

A change in the treatment of seasonal items in the HICP basket entered into force in all EU Member States in January 2011. ⁽¹⁾ It has led to significant one-off fluctuations in the inflation rate in the euro-area aggregate (up to 0.2 pp). At the level of individual Member States, this volatility has been much higher in some cases (up to -1.1 pp in Greece and -0.9 pp in Italy or +0.7 pp in Slovenia). In most other Member States the impact has been minimal.

In spite of their inherent volatility, seasonal products should be included in the HICP basket, but their correct price measurement requires special treatment. The new Regulation targets only ‘strongly’ seasonal items, which are available only part of the year. ‘Weakly’ seasonal items, which are available all year but at seasonally fluctuating prices and quantities, can also cause ‘statistical fog’ (in month-to-month and index figures) in the analysis of headline inflation.

The new standards for the treatment of seasonal items cover those goods and services that are not available, or purchased in small or negligible volumes, for certain periods in a typical annual cycle. Climate, traditions and institutional arrangements are the main causes of seasonal unavailability. Typically, these products can be found in the following COICOP ⁽²⁾ classes: fish, fruit, vegetables, clothing and footwear, which carry a combined weight of 10.5% in the euro-area HICP. Strongly seasonal goods may also appear in other categories such as sports equipment, recreational services or package holidays, as the list of seasonal products is not uniform across countries.

The aim of the new Regulation is to harmonise the statistical treatment of such items by restricting the choice of calculation methods, thereby delivering sufficiently comparable results at the level of all-items HICP. It allows two broad calculation methods to be applied, namely the strict annual weights method and the class-confined seasonal weights method. ⁽³⁾

The *strict annual weights method* applies the same expenditure weights for seasonal products in all months using imputed prices in the out-of season months. Within this method, prices of seasonal products that are in season can be used to estimate the index for out-of-season products (counter-seasonal estimation), or else the index of out-of-season products can be estimated using price developments of all available products in the whole COICOP class or a sub-category of it (all-seasonal estimation).

The *class-confined seasonal weights method* changes weights in various months according to the consumption pattern found in the base period for products that are out of season. The total weight of the COICOP class or group is constant throughout the year, allowing for zero weights for products that are out of season.

Overall, there is no entirely satisfactory way of dealing with seasonal items, particularly when estimating the monthly or quarterly HICP. The strict annual weights approach relies on potentially imprecise imputation of missing prices and its annual fixed weights will not be representative of monthly consumption patterns. However, its advantage is its ease of implementation and preservation of the annual basket methodology.

Alternatively, attaching a zero weight to the missing product classes complicates month-to-month comparisons and is conceptually inconsistent with a fixed basket index. In addition, the seasonal weights are determined by past consumption patterns, so that abnormal seasonal fluctuations are not taken into account. On the plus side, however, this approach respects changing seasonal consumption patterns and the reality of household spending, as well as reducing the need for price imputation.

Ultimately, both methods face the implementation challenge of accurately identifying seasonal items in the basket and carefully pre-defining the length of the seasonal cycle. This is not an easy task as the seasonal availability of products may vary between regions and seasons might change with weather conditions from one year to another.

In most euro-area Member States, the Regulation did not bring about major changes and had thus little impact on headline inflation. Only in Spain, Greece, Italy, Luxembourg and Portugal were the methods previously used

¹ See Commission Regulation (EC) No 330/2009 of 22 April 2009.

² COICOP signifies ‘Classification of Individual Consumption According to Purpose’ and is a reference classification published by the United Nations Statistics Division. In the case of the HICP used in the European Union, it comprises 127 positions at the first four levels and around 900 positions when adding a fifth and a sixth digit.

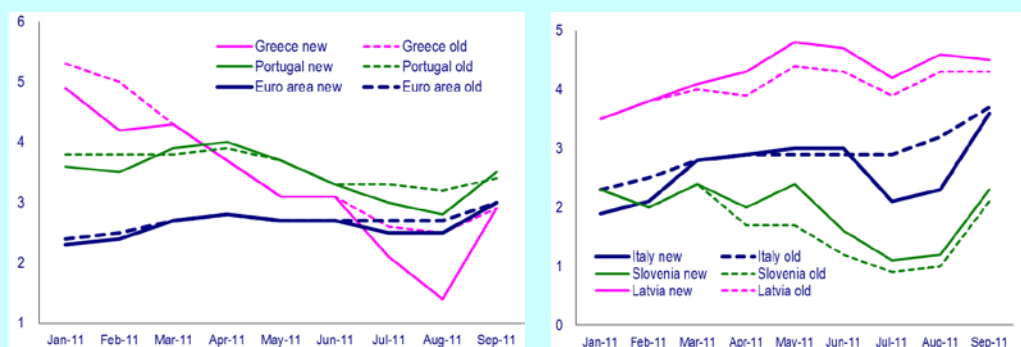
³ See Eurostat, Implementation of Commission Regulation (EC) No 330/2009 on the treatment of seasonal products — Information note and impacts on the HICP 2011; latest update: 16 November 2011.

(Continued on the next page)

Box (continued)

significantly different. In terms of timing, only Spain has revised HICP data for the year preceding implementation (i.e. 2010). Spain's annual average inflation rate for 2010 was adjusted from 1.8% to 2.0%, with large counteracting effects across different months of the year. In 2011 the impact has been largest in Greece, Italy, Portugal, Slovenia and (outside the euro area) Latvia (see Graph). The distortion of the annual HICP inflation rate in the euro area has been limited so far, although about 0.2 pp of the 0.5 pp increase in headline inflation in September 2011 can be explained by the impact of the new treatment of seasonal items (which had lowered the headline inflation rate in July and August, but had no impact in September). While for the rest of the year the changes in seasonal patterns make it more challenging to assess inflation changes, it is expected that the overall impact on the annual average HICP for 2011 will be minor.

Impact of seasonal items measurement on annual HICP inflation in selected EU Member States (in pp, Jan 2011-Sept 2011)



Given the freedom in the choice of the various methods for varying classes and due to deviations in the implementation date in some Member States, the ensuing volatility has temporarily impaired the comparability and transparency of annual HICP data. However, the methodological change affects annual inflation rates only during the year of implementation. While month-to-month volatility may increase, year-on-year changes can be expected to return to a relatively normal pattern as of 2012.

Among non-oil commodities, broad-based and sharp price rises have been visible in recent years, but especially since late 2010, due to a combination of demand pressures and weather-related declines in agricultural production in different parts of the world. Steep price rises during late 2010 and early 2011 only started receding for most major non-oil commodities in autumn, bringing their year-on-year inflation down to zero or negative territory in November 2011. Earlier price rises up to March 2011 saw wheat prices double in price compared to twelve months earlier. For industrial metals, year-on-year price increases in January and February ranged from +15% for zinc to over 40% for copper and nickel. China's role in these developments stands out as a significant factor in this surge via increased demand and production cutbacks (in the case of aluminium). Steel prices also soared in the first quarter following major floods in Australia.

At the same time, precious metals prices have also recently reached new peaks, in many cases driven by safe haven purchases against the background of concerns about the a possible economic downturn. Since the start of 2010 gold prices have

been rising at annual rates of around 25%, all the way up to November 2011, and silver prices have risen even more steeply.

While upstream price pressures have intensified (although only temporarily in some cases), core inflation, which excludes the most volatile price components (i.e. energy and unprocessed food) and provides an approximate measure of underlying price dynamics, has so far remained moderate. Core inflation remained at 2.0% in October, thus remaining at the highest rate since December 2008. The pick-up in core inflation observed since August 2011 stems mainly from seasonal goods and partly from changes in taxation (see Box II.2.1).

Looking ahead, core inflation is subject to diverging forces. On the one hand, the indirect impact of past commodity price increases - still visible in producer prices - may continue to feed through to consumer price inflation. Recent experience suggests that broad-based commodity rallies take between three and five quarters to

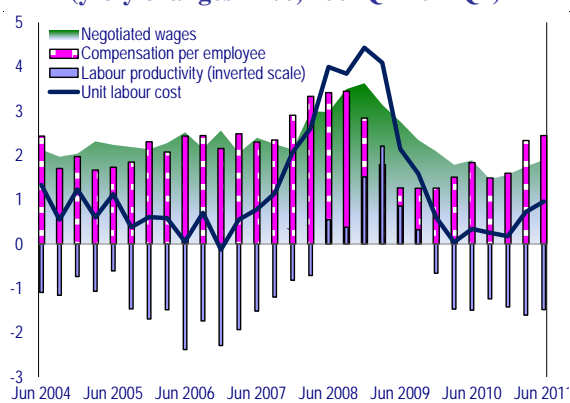
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show up in core inflation. ⁽²⁷⁾ Given that year-on-year commodity price inflation has only receded to broadly neutral territory in autumn, resulting indirect price pressures for core inflation may therefore persist until at least mid-2012. On the other hand, while second-round effects on general wages and prices might in principle also occur, weak economic activity in the medium term should greatly limit this risk.

Unit labour costs reveal no material threat to price stability

Up to mid-2011 labour market conditions in the euro area stabilised and signs of a tentative recovery in labour markets became visible. Employment growth was marginally positive in the last quarter of 2010 and in the first half of 2011. Despite some improvement in economic activity and employment, the unemployment rate has remained stubbornly high over recent months. The seasonally-adjusted unemployment rate has remained around 10% — i.e. close to the highest level since the launch of the euro (10.2% reached in April 2010) — since the end of 2009. This compares with an unemployment rate of 7.4% in the first half of 2008.

Graph II.2.3: Labour cost and productivity, euro area
(y-o-y changes in %, 2004Q2-2011Q2)



Source: Eurostat.

The slowing of the economic recovery in the second and third quarters of 2011 and the highly uncertain economic climate are broadly keeping wage increases in check in the euro area. Graph II.2.3 reflects this in key metrics of labour cost developments. After bottoming out at 1.5% in the third quarter of 2010 (the lowest rate since the euro's introduction), the annual rate of growth in negotiated wages in the euro area began to

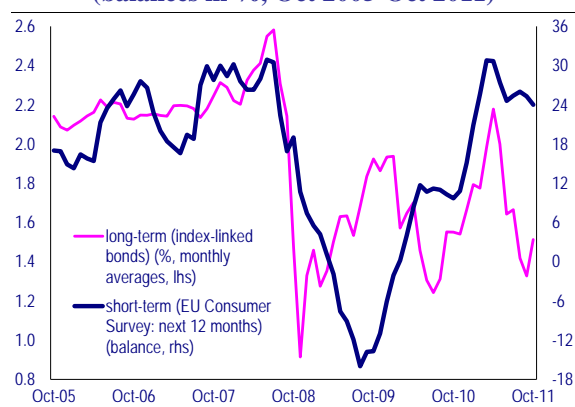
increase incrementally, reaching 1.9% in the second quarter of 2011. Despite the upward trend, negotiated wage growth has still remained below its average rate since 1999 (2.4%).

Year-on-year growth in compensation per employee also gradually picked up to 2.5% in the second quarter of 2011, from 1.3% in the last quarter of 2009. Since labour productivity growth reached 1.5% in the second quarter, unit labour cost growth accelerated to 1%, thus still remaining below the average of 1.5% since 1999. Going forward, labour cost pressures are likely to remain contained in the medium term in the light of continued slack on the labour market and a weak growth outlook.

Inflation expectations defy recent volatility

Various indicators of inflation expectations point towards inflation subsiding over the medium term from its currently high level. While the spike in inflation since late 2010 is contemporaneously visible in all expectation measures considered, longer-term expectations have almost entirely settled back to moderate levels. As shown in Graph II.2.4, consumer surveys by the European Commission suggest that in the near term households on balance still expect significant price rises over the coming 12-month period. But with the depicted positive balance reading for short-term expectations having eased from its March 2011 peak, the surge in inflation may be starting to fade from consumers' minds.

Graph II.2.4: Inflation expectations, euro area
(balances in %, Oct 2005-Oct 2011)



Source: European Commission.

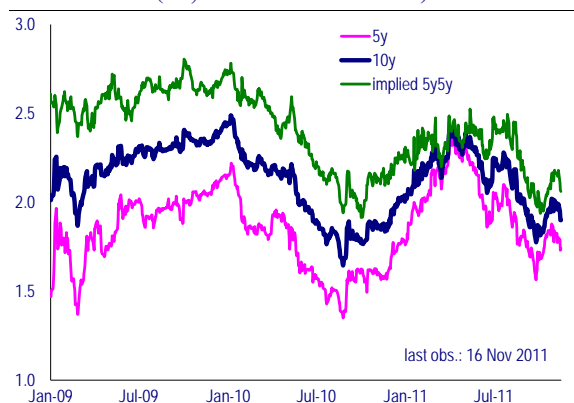
Evidence from inflation swaps points to a decline in longer-term inflation expectations. ⁽²⁸⁾ The

⁽²⁷⁾ Source: Commission calculations using Eurostat and Goldman Sachs Commodity Index (GSCI) data

⁽²⁸⁾ As inflation swaps are unaffected by differential liquidity conditions in nominal and real bond markets or by flight-to-liquidity flows, they arguably provide more robust signals than those derived from inflation-linked bonds.

rates of zero-coupon inflation swaps, which provide a market-based measure of inflation expectations at different horizons, have all trended downward since April 2011, notwithstanding an uptick in October. As shown in Graph II.2.5, breakeven inflation rates across a range of maturities have trended downwards since mid-August. At implied inflation rates of around 1¾-2% in mid-November, these rates remain at a level consistent with price stability. This confirms the solid anchoring of inflation expectations in the euro area over the medium term.

Graph II.2.5: Euro-area inflation swap rates (% , Jan 2009-Nov 2011)



Source: EcoWin

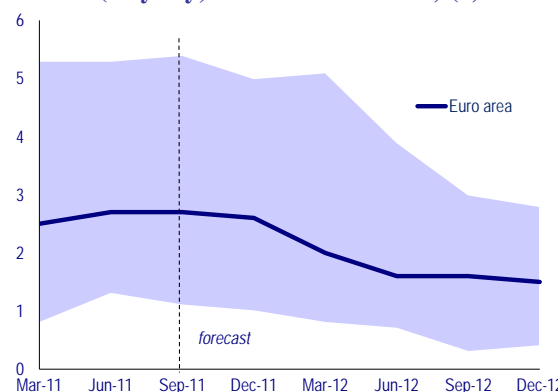
Inflation outlook appears benign despite risks

The Commission’s autumn 2011 forecast, released on 10 November, projects an annual euro-area inflation rate of 2.6% in 2011. Financial market tensions within the euro area intensified over the summer while global growth slowed down, driving down prospects for a sustained recovery of domestic demand. This should ease upward pressure on euro-area inflation over the coming months, when higher commodity prices will still be feeding through and indirect taxation will also likely have some upward effect. In addition, the recorded headline inflation rate may be lowered by base effects all the way until May 2012 (except in January).

Looking further ahead, the economic slowdown and persistent labour market weaknesses in several euro-area Member States are likely to put downward pressure on annual inflation, which is expected to fall to 1.7% in 2012. In particular, wages are not expected to fully catch up with the higher-than-previously-expected inflation of 2011, not least in view of the high unemployment. Additionally, weak demand conditions will limit firms’ ability to pass on higher commodity prices

to consumers, instead leaving them to absorb part of the shock in their profit margins.

Graph II.2.6: Euro-area HICP inflation (% y-o-y, Mar 2011-Dec 2012) (1)



(1) Shaded area represents the maximum-minimum range of euro-area Member States.

Source: European Commission

Base effects are projected to temporarily raise inflation between May and July 2012, but the overall rate is expected to follow a declining trend in 2012, falling below 2% from the second quarter on. The ongoing fiscal consolidation may increase headline inflation through indirect tax rises and administered prices, though the risk of second-round effects appears low. As the recovery in 2013 is forecast to remain moderate, HICP inflation is expected to remain low at 1.6% that year.

The risks around the inflation outlook appear broadly balanced and relate mainly to the uncertainty concerning economic growth and commodity price developments. Rising commodity prices, in tandem with potential further decoupling of emerging market economies from advanced countries or a weakening exchange rate, could put pressure on import prices and thereby on inflation, even if growth is anaemic in the euro area. Moreover, in the past few years commodity prices have shown a swift upward response whenever the global economic situation has started to improve. The key downside risk to the inflation outlook relates to lower-than-expected growth, which could further dampen price pressures amid weak demand and labour market conditions.

Conclusion

Inflation in the euro area has risen markedly in 2011 due to higher energy prices and signs of a strengthening economic recovery in the early part of the year. Despite the growth momentum fading

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since, commodity prices — particularly oil prices — declined only moderately and the pass-through to consumer prices is still ongoing. Furthermore, both headline and core inflation were driven by unusually strong seasonal variations for clothing and footwear products, reflecting the temporary effect of a methodological change concerning the compilation of the HICP statistics in several Member States.

The slowing pace of economic recovery and the uncertain growth outlook are keeping wage increases in the euro area in check. Going forward, labour cost pressures are likely to remain contained in the medium term in the light of

continued slack on the labour market. Meanwhile, inflation expectations remain firmly anchored at levels consistent with price stability, and both market-based and survey-based indicators of short-term and long-term inflation expectations have been trending lower since the spring. Headline inflation is expected to return to below 2% in the euro area in 2012 and 2013, taking into account weak economic growth and the diminishing impact of high commodity prices. The risks around the inflation outlook appear broadly balanced and relate mainly to the uncertainty concerning economic growth and commodity price developments.