

Box 4

Evaluating Eurostat's euro area HICP flash estimate

For over a year now, Eurostat has been releasing flash estimates for euro area HICP inflation. These are published some two weeks in advance of the official and complete HICP release. Comprehensive and reliable economic statistics released at a sufficiently high frequency and in a timely fashion are important for the conduct of economic analysis. This is particularly true of the HICP, which is a key variable. Normally, however, there is a trade-off between the timeliness with which an indicator is released and its reliability. This box reviews the main features of the HICP flash estimate and then evaluates the performance of the indicator since its launch in November 2001, bearing this trade-off in mind.

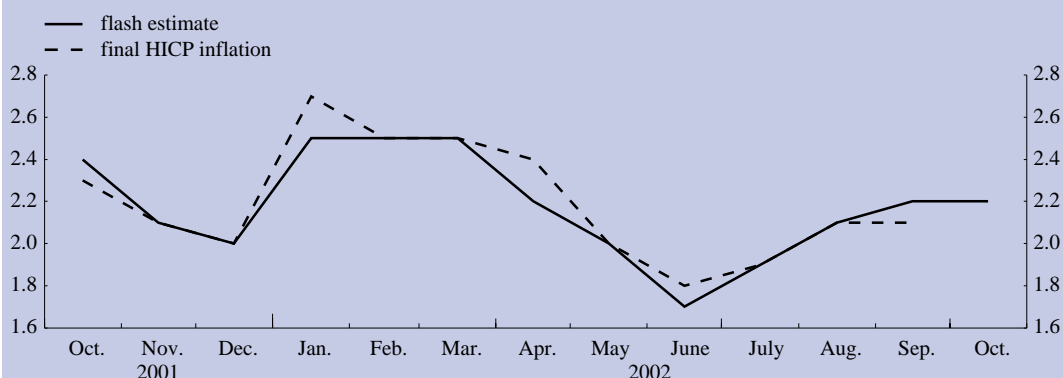
Features of Eurostat's HICP flash estimate

The first HICP flash estimate referred to the inflation rate for October 2001 (see the chart).¹ Normally, the flash estimate is released on the last working day of the reference month. As a consequence, the flash estimate is published approximately two weeks before the official release of the euro area HICP. It only refers to the annual HICP inflation rate for the euro area as a whole, meaning that no country or sectoral breakdown is provided.

When producing the flash estimate, Eurostat takes into account published preliminary HICP data for Germany and Italy, which are released in a very timely fashion. However, further information on consumer price developments from other euro area countries are also used when available (e.g. the Belgium CPI, which is released at the end of the reference month). In addition, early information on energy prices also feeds into the estimate, with Eurostat estimating the energy component of the HICP on the basis of oil price data. Broadly speaking, the methodology used by Eurostat is such that, in terms of HICP weights, more than half of the flash estimate is based on actual released data (the non-energy HICP component for Germany and Italy together with the energy component for all countries account for 54% of the euro area HICP). The remaining part of the HICP is estimated by Eurostat using time-series techniques.

Overall HICP

(annual percentage changes)



Source: Eurostat.

Review of the performance of Eurostat's flash estimate

Eurostat's flash estimate has correctly anticipated the annual HICP inflation rate in seven out of the past 12 months.² On three occasions the difference compared with the final estimate was 0.1 percentage point, while a

¹ Further information can be found in Eurostat news release No. 113/2001, 5 November 2001.

² It was not possible to evaluate the latest flash estimate for October 2002 since the official HICP estimate had not been released by the cut-off date for data to be included in the November 2002 Monthly Bulletin.

difference of 0.2 percentage point was recorded for two months. However, the directional change in the annual rate of final HICP inflation has been correctly anticipated for all months except September 2002, when the flash estimate signalled a slight increase in inflation although it remained unchanged. It should be noted, however, that the euro area flash estimate may differ from the official HICP figure, not only as a result of an estimation error but also as a result of changes to the preliminary national HICP data (i.e. for Germany and Italy) and rounding effects.

Performance of Eurostat's HICP flash estimate

(percentage points)

	HICP estimates		
	Flash	Naïve	AR
MAD	0.06	0.19	0.13

Source: ECB calculations.

estimates the inflation rate as an autoregressive (AR) function of the 12 HICP inflation outcomes over the previous year. The relative performance of the Eurostat flash estimate – compared against these two benchmarks – is evaluated using a standard performance statistic: the Mean Absolute Deviation (MAD). The MAD (see the table) is calculated as the average of the errors in absolute terms from October 2001 to September 2002. Hence, a low MAD indicates a small error. Not surprisingly, the Eurostat flash estimate clearly outperforms the estimate based on the naïve approach, with the MAD significantly higher for the naïve method. In addition, the flash estimate has also outperformed the AR benchmark in terms of anticipating the final HICP outcome.

One insightful way of evaluating the track record of the flash estimate is to compare its performance against some kind of benchmark. Here two benchmarks are considered: first, a naïve method which simply assumes that the estimated rate of annual HICP inflation in month t is obtained from the actual observed outcome in month $t-1$; and a second, slightly more elaborate benchmark, which

To conclude, the performance of the flash estimate has been satisfactory and, in particular, it has proved a valuable indicator for predicting the directional change in the final HICP inflation rate. Hence, it is a useful early supplement to the available information on price developments in the euro area economy. Looking ahead, the quality of the flash estimate is likely to improve, since efforts to further increase its coverage are currently under way.