Problem statement

- Eurostat has been publishing the euro area Harmonised Index of Consumer Prices (HICP) flash estimate (all-items) every month since October 2001 but its relevance has been somewhat limited to the users as only the HICP all-items was released and no flash indication on its main components were made available;
- Inflation main components, i.e., ‘food’, ‘non-energy industrial goods’ (goodwax), ‘energy’ and ‘services’ (serv) are more difficult to forecast. In addition, the outcome of the nowcasting procedure has to be internally consistent, i.e., the aggregation of the nowcasts for the main components has to equal the nowcast of the all-items;
- A completely new nowcasting system had to be developed. The new system combines early information from the euro area Member States with 1-step ahead forecasts and timely price data on specific energy products into a consistent set of nowcasts.

Preliminary data

Preliminary data sent by Member States has a 7 to 10 times lower RMSE than 1-step ahead forecasts described in the literature, which corroborates our assumption that preliminary data is a better forecast than any model-based forecast.

Theoretical framework

\[
X_t = \begin{pmatrix} X_{t-1} \end{pmatrix} + \eta_t
\]

\[
\eta_t = \begin{pmatrix} \epsilon_t & \Delta X_{t-1} \end{pmatrix}
\]

\[
X_t \cap \{t \leq \} \{X_{t-1} \}
\]

Flash Estimate procedure

1. Make a forecast for the all-items
2. Perform the pseudo-out-of-sample for the last 24 months \( (n = 24) \)
3. Compute the MPE and the MPE of the all-items.
4. If the MPE of the all-items is not significantly lower than that of the reference model, replace the reference model by the candidate model.

Calibration

The calibration is made by a simple proportional allocation.

Results

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<th>Oct-12</th>
<th>Sep-12</th>
<th>Aug-12</th>
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</tr>
</tbody>
</table>

More information available

- Eurostat webpage
- News release
- Statistics explained

http://ec.europa.eu/eurostat

Conclusion

From October 2012 onwards Eurostat produced timely and accurate flash estimates. The maximum recorded error was 0.2 percentage points for energy, the most volatile component, and no error for the headline inflation (all-items) was recorded so far.