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Poland Economics View

What stands behind serial inflation surprises?

OUR TAKE

CEE has seen substantial disinflation in recent months, with a particularly high number of negative CPI surprises in Poland and Hungary. Our analysis shows that in Poland consensus forecasts systematically fail to include all useful information in CPI forecasts, while in Hungary and Czechia this effect is significantly smaller or non-existent. Looking at more detailed data, we note that in Poland recent (downward) inflation surprises were in 70% due to non-core factors.

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Since early 2023 inflation pressures in CEE have eased substantially and CPI prints repeatedly undershot economists' forecasts. Consequently, the cumulative forecasting error between March 2023 and May 2024 reached -2.9 pp in Poland and -2.3 pp in Hungary (the latter is based on data up to April). Given the size of surprises, the crucial question is to what extent downward surprises reflect an actual drop in demand-side pressures, lower food/energy prices or perhaps any other factors.

Forecasters are to blame

Our analysis suggests that inflation forecasts in Poland and to some extent in Hungary are not fully 'efficient' and by this we mean that they do not take into account all information available at the moment of forecasting. To assess this we had a look at a history of consensus forecasts from Bloomberg survey in the period January 2014-April 2024 and we performed two tests. First, we checked whether inclusion of past forecast errors (lagged by one month) improves forecast accuracy. Second, we checked whether accuracy is improved by adding information about the slope of the inflation path over last three months. Both pieces of information are available to forecasters already when they prepare their projections. Therefore, if their inclusion in the model helps reduce forecast errors, it is a sign that the original forecasts were inefficient.

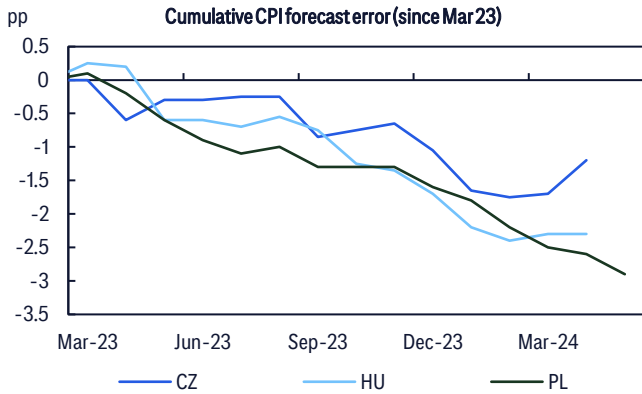
Consensus forecasts for Poland failed both tests while those for Hungary failed the second one. Interestingly, Czech consensus forecasts did well in both cases. These results suggest that to some extent cumulative forecast errors over last year might have been simply due to imperfect models, rather than unpredictable shocks. While in Hungary the quantitative impact of this 'inefficiency' is small and arguably is not a serious concern, in Poland this issue seems more concerning. According to our estimates Polish CPI forecast error could be lowered by around half simply by accounting for the existence of error autocorrelation in the model. Nevertheless, inefficient models are not the whole story and the remaining half of the error needs requires explanation as well.

Non-core factors do not help

Poland is the only country in the region where a history of core inflation forecasts is available (regularly published by Polish daily Parkiet). Using this data we analyzed sources of inflation surprises in recent months. As Figure 3 shows, while core inflation was an important source of downward surprises in mid-2023, this pattern changed more recently. Over last six months these were non-core factors (mostly food, but also energy) that stood behind downward CPI surprises. Expressing this in numbers, since November the core inflation was responsible for only 0.3 pp of the cumulative CPI forecast error, while non-core factors were responsible for 1.2 pp.

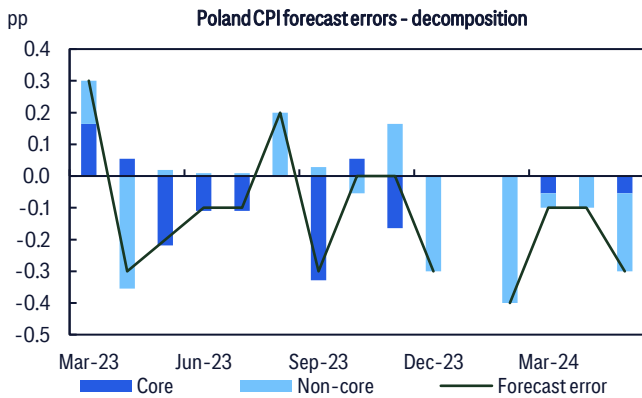
In practice this means that the key driving force of recent disinflation was food and energy. This gives the NBP some comfort to stick to its hawkish rhetoric, at least in the near term. Additionally, rising food prices in global markets and unfavourable weather conditions in Poland (dry and hot weather) suggest that food might become a more important inflation driver in the future. However, if we are wrong and the inflation continues to surprise to the downside also in the coming months, the MPC might need to eventually rethink its hawkish stance.

Figure 1. A series of downward inflation surprises in Poland and Hungary helped lower the CPI towards the target



Source: Citi Handlowy, Bloomberg

Figure 3. In recent months inflation surprises in Poland were mostly due to non-core factors (food, fuels, energy)



We omit January as in this particular month core inflation forecasts are not published due to changes in CPI weights.

Source: Citi Handlowy Estimates, Parkiet survey

Figure 2. Inflation undershooting in Poland is to some extent a reflection of failed forecasts rather than unexpected shocks

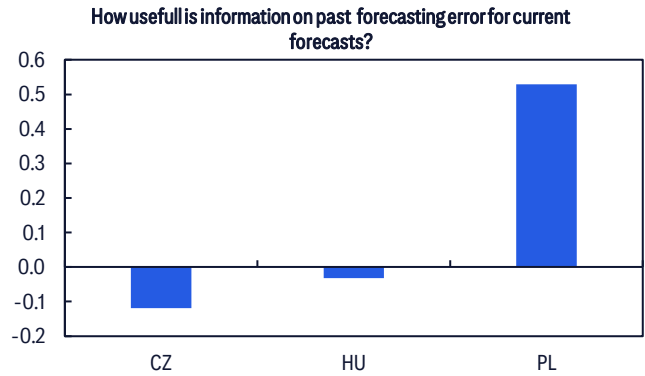
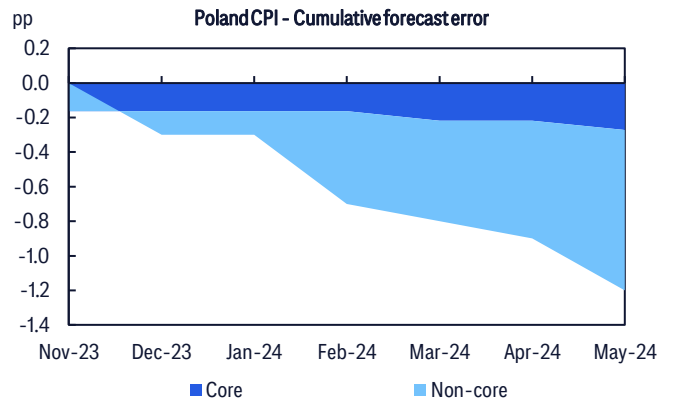


Figure shows an estimate of how much the knowledge of past forecasting errors (lagged 1 month) can improve CPI forecast accuracy. Model parameter were statistically significant only in Poland.

Source: Citi Handlowy Estimates

Figure 4. Since November the core inflation was responsible for only 0.3 pp of the cumulative CPI forecast error, while non-core factors were responsible for 1.2 pp



Source: Citi Handlowy Estimates, Parkiet survey

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