Summary for non-specialists
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The improbable renaissance of the Phillips curve: The crisis and euro area inflation dynamics

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Why has euro area (core) inflation not fallen further during and after the "great recession"? How different are inflation dynamics across Member States? This paper analyses core inflation dynamics in the euro area and its Member States using a hybrid Phillips curve specification. Our dependent variable is core inflation, i.e. a measure of inflation that disregards the most volatile components of headline inflation (unprocessed food and energy), which are, moreover, largely imported. We follow a recent approach in the literature and use inflation expectations from an expert survey (Consensus Economics), rather than constructing them from realised inflation values.

The choice of the hybrid Phillips curve framework is vindicated, as the data clearly indicate the relevance of both backward-looking inflation and inflation expectations. We find a relative weight of around 20% on inflation expectations, which is well below most of the literature on new Keynesian Phillips curves. The impact of the output gap on core inflation is significant but not large. Moreover, it has decreased over time – the Phillips curve has flattened. In the aftermath of the "great recession", with large and persistent output gaps, our findings suggest that the observed stability of core inflation can be explained to a large extent by stable inflation expectations, sluggish price adjustment and an only moderate impact of the output gap on inflation.

Estimated inflation dynamics in the eleven euro area Member States examined cluster quite closely around the Phillips curve estimated for the euro area aggregate. For all Member States, the relative weight of backward-looking inflation is well above that of inflation expectations. Differences across Member States in terms of the relevance of inflation expectations seem to be related to the level of inflation over the past two decades, with Member States having experienced higher average inflation displaying more forward-looking price setting. Differences in the steepness of the Phillips curve across Member States correlate with the level of product market rigidity: In more flexible economies the impact of the output gap on inflation tends to be larger. Although the heterogeneity across Member States is not large, the exceptionally large output gap caused by the crisis is one driver of the recently observed inflation differentials across Member States.

Cross-country differences in the responsiveness of core inflation to cyclical conditions have important policy implications. If symmetric shocks to GDP have asymmetric inflationary dynamics, divergence in inflation could feed into inflation expectations and via expected real

interest rates back into growth. Moreover, if inflation dynamics are non-linear with respect to the output gap (for which we do not find compelling evidence, but which is reported in parts of the literature), euro area monetary policy needs to take into account the composition of the aggregate output gap. Our finding of only mild differences in the Phillips curve parameters across Member States is therefore reassuring in terms of the single monetary policy. Nonetheless, the existence of heterogeneity highlights the role for macroeconomic and structural policies at the level of Member States to help stabilising output and price developments.