Summary for non-specialists
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Did the introduction of the euro impact on inflation uncertainty?

An empirical assessment

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In this paper we investigate the impact of the monetary unification in Europe on the uncertainty about inflation. Inflation uncertainty implies ambiguity of expectations about the future or current state of inflation prevailing among individuals, firms and policymakers etc. An increase in uncertainty might, among other implications, discourage long-term investment strategies or complicate agreements like wage contracts. The reason for the latter is that such contracts usually do not account for changes in prices and therefore, frequent costly renegotiations might be necessary in case of higher nominal uncertainty. A central bank is thought to conduct a successful monetary policy when not only inflation itself, but also the associated uncertainty is steadily kept at a controlled low level.

To be able to appreciate the success of monetary policy, it is firstly necessary to determine how inflation uncertainty should be measured. As there appears to be no unique and generally accepted definition of this concept, we propose a range of alternative estimators to approach the measurement issue from different perspectives. Inflation uncertainty is mostly seen as uncertainty about the evolution of inflation during some time period in the future. Hence we consider three uncertainty measures which are based on commonly employed forecasting models. These forecast based estimators are complemented by a further measure which quantifies the uncertainty about current inflation dynamics.

To evaluate the effect of monetary unification, we compare the uncertainty prevailing in the EMU economies with two groups of other industrialised countries which did not adopt the Euro, namely EU economies outside the monetary union and other OECD members. This enables us to compare the estimated effect of forming a monetary union to the counterfactual situation.

We find that introducing the EMU has provided significant payoffs in terms of lower inflation uncertainty. The results firstly show that inflation uncertainty is lower on average over all time periods in the EMU member states, as compared to the control groups. Secondly, being part of the monetary union seems to provide benefits in terms of lower uncertainty as compared with the OECD economies during the time after the Euro introduction. We also find that globally, inflation uncertainty may be more likely to become threatening during recent times of financial turmoil and freehanded fiscal and monetary stimulation packages. In short, membership of the EMU has provided a relatively large degree of protection against inflation uncertainty during recent years. Hence being part of the EMU is also likely to mitigate upcoming threats to inflation stability stemming from the recent recession.