

2009-09-10

PRESS RELEASE

Micro data on nominal rigidity, inflation persistence and optimal monetary policy

by Engin Kara

NBB Working Paper No 175 - Research Series

The popular Calvo model with indexation (IC) and Sticky Information model (SI) have guided much of the monetary policy debate. According to the IC model, firms set their prices in nominal terms for a random timescale, but throughout the duration of the contract, the nominal price is updated according to recent inflation rates (i.e. indexation). In the SI model, there is also an uncertain contract length and firms establish the sequence of prices for each period at the beginning of the contract. Therefore, prices are conditional on the information firms have when they set prices, so, as the contract grows older, information becomes increasingly out of date. The strength of these approaches is that they can explain the persistence of inflation observed in the data. Clearly, formulating monetary policy by using a model that closely fits the macro evidence is a first step towards reliable monetary policy analysis.

However, both of these theories are inconsistent with the micro data on prices. In these models, inflation persistence arises at a cost of frequent price changes, i.e. every period. That contradicts the micro evidence on prices. Evidence provided by the Eurosystem's Inflation Persistence Network for the euro area indicates that prices tend to remain unchanged for several months and other studies report the same conclusion for the US economy.

In this paper, the author evaluates the consequences of implementing policies that are optimal from the perspective of models that overlook the micro data. To do so, he uses a Generalised Taylor Economy (*GTE*). The *GTE* generalises the simple Taylor model to allow for sectoral heterogeneity with contract lengths suggested by the micro-data. While there is no material difference between the GTE and its popular alternatives in terms of inflation persistence, a difference arises when it comes to the micro data: the *GTE* is consistent with the micro data.

The findings reported in the paper suggest that policy conclusions are significantly affected by whether inflation persistence arises in a manner consistent with the micro data. More specifically, the aspects of the models that are inconsistent with the micro data affect the degree of policy trade-off between price stability and output gap stability. Therefore, a failure to recognise the importance of micro data can lead to misleading analysis regarding the policy trade-offs that policy-makers face and may result in the design of policy rules that may not be appropriate for implementation.