Optimal monetary policy and inflation persistence in an open economy

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Abstract

In this paper, we investigate optimal monetary policy in a two country model with inflation persistence. The main findings are as follows. First, we find that the rate of inflation immediately responds to a domestic natural interest rate shock in both the cases of policy coordination and no policy coordination when the New Keynesian Phillips Curve (NKPC) is forward-looking. Inflation almost never responds to a natural interest rate shock, however, when the NKPC is backward-looking. Second, inflation is more persistent under a domestic cost-push shock when the NKPC is backward-looking than when the NKPC is forward-looking for both the cases of policy coordination and no policy coordination. Finally, we find that when inflation is highly persistent, the gain from cooperation is large. Thus, the welfare loss is smaller when both countries coordinate than when they conduct their monetary policy independently. The gain from cooperation is small, however, when inflation persistence is small.

Keywords: Inflation persistence; Optimal monetary policy; Coordination

JEL classfication: E41; E52; E58

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