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Inflation and output in New Keynesian models with a transient interest rate peg

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Abstract
A familiar result in the canonical Dynamic New Keynesian (DNK) model is that policymakers constrained by the zero bound can improve outcomes by promising to keep rates low after the zero bound is not binding. We examine a general class of interest rate pegs in a variety of DNK models. Standard versions of the model produce counterintuitive reversals where the effect of the interest rate peg can switch from highly expansionary to highly contractionary for modest changes in the length of the interest rate peg. This unusual behavior does not arise in sticky information models of the Phillips curve.

Keywords: Fixed interest rate, Dynamic New Keynesian model, forward guidance puzzles.

1. Introduction.

Several central banks have used various forms of forward guidance in the aftermath of the financial crisis. One interpretation of such forward guidance is that it attempts to provide additional monetary stimulus when the central bank is currently constrained by the zero lower bound (ZLB). This central bank behavior is mirrored in the academic literature that examines monetary policy at the ZLB in Dynamic New Keynesian (DNK) models. Two influential contributions are Eggertson and Woodford (2003) and Werning (2012). These authors consider the effect of a large shock to the natural rate of interest that pushes the nominal rate to the ZLB and thus violates the linear policy rule for an exogenous number of periods. This literature

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