Monetary Policy Transmission in an Open Economy: New Data and Evidence from the United Kingdom

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Ambrogio Cesa-Bianchi[1,2], Gregory Thwaites[1,2] and Alejandro Vicondoa[3]

[1]Bank of England, [2]Centre for Macroeconomics, [3]European University Institute

Central banks use policy interest rates to stabilise inflation and the wider economy. To do this effectively, policymakers need to know how this policy tool affects the economy. However, the very fact of using these instruments for stabilisation makes it difficult to disentangle their effects from their causes. For example, the central bank could respond to an economic boom by raising interest rates. An observer could see activity and interest rates both rising and conclude that the latter caused the former, whereas the true causation is in the opposite direction, and a spontaneous rise in interest rates could well have the opposite effect.

One way around this problem is to look for those small and rare `exogenous' changes in monetary policy which cannot be explained by developments in the wider economy. In this paper we do this with novel intra-daily financial market data for the UK. Specifically, we compute the change in the expected short-term interest rate occurring in a window a few minutes around monetary policy announcements – decisions of the Bank of England's Monetary Policy Committee, and the release of the minutes of these meetings. These interest rates are tightly linked to Bank rate, and are therefore a good measure of the market's expectation about impending changes in monetary policy.

Looking at changes in the expected rate over a short window, we ensure that the policy event is the only event of note the window contains, and discard any data points when we know of other data releases taking place. It is therefore unlikely that the computed interest rate changes are related to developments in the economy. We label these uncaused changes as 'exogenous' monetary policy surprises.

We then employ the exogenous surprises in empirical models to assess the impact monetary policy has on daily financial market data and on monthly real and financial variables. Monetary policy affects the yield curve at different maturities. For example, monetary policy tightenings tend to raise forward real interest rates and to lower expected inflation a long way into the future. Turning to the effects of monetary policy on the wider economy, we find that tighter policy raises

unemployment and corporate lending spreads, strengthens the exchange rate, and reduces trade volumes, stock prices and inflation.

If the MPC has more information on the market about the economic outlook, it is possible that policy surprises contain news about the determinants of policy rather than about the policy itself. If true, this would invalidate our approach as we would once again be looking at the causes of monetary policy rather than its effects. To this end, we employ a complementary measure of shocks constructed in a different way to check whether this is indeed the case, and find no evidence that it is.