QE and the Bank Lending Channel in the United Kingdom

CFM-DP2015-23

Nick Butt[1], Rohan Churm[1], Michael McMahon[3,4,5,6,7], Arpad Morotz[1], Jochen Schanz[2]

[1]Bank of England, [2]Bank for International Settlements, [3]Centre for Competitive Advantage in the Global Economy (Warwick), [4]Centre for Applied Macroeconomic Analysis (ANU), [5]Centre For Economic Policy Research, [6]Centre For Macroeconomics, [7]University of Warwick,

In March 2009, the Bank of England's Monetary Policy Committee (MPC) voted to commence a programme of asset (predominantly gilt) purchases, commonly referred to as quantitative easing (QE). Following subsequent rounds of purchases the stock of asset purchases reached £375 billion by October 2012. Faced with a likely deep recession and the risk of deflation, this policy was intended to boost GDP and inflation. The MPC thought that this would primarily happen by QE reducing gilt yields and boosting the price of a range of assets. That view drew on the monetary economics literature, which suggests that when sellers of gilts - who were primarily other financial corporations (OFCs) such as pension funds, insurance companies and asset managers - receive deposits, they would wish to rebalance their portfolios in to riskier assets, due to money and securities not being close substitutes. There is a broad range of evidence that suggests that QE did reduce gilt yields and boost other asset prices. The economics literature also suggests that such expansionary monetary policy may lead to a shift in banks' willingness to lend, via a 'bank lending channel'. At the time QE was launched the MPC were not expecting or relying upon a large bank lending channel due, in part, to the pressures on banks to decrease the size of their balance sheets. In this paper we test whether QE did in fact provide a boost to bank lending.

We show using a simple framework that a shock that boosts banks' OFC deposit funding can lead to a greater willingness of banks to lend, as these deposits offer a cheaper source of financing than other sources of funding. But if the variability, or 'flightiness', of these deposits increases then banks are less likely to increase their lending at a given price, as cheaper funding today may have to be replaced with more expensive funding tomorrow.

We use this framework to inform our empirical analysis, which makes use of a data set available to researchers at the Bank of England. It combines balance sheet, regulatory and market operations data for individual banking groups. This allows a descriptive review of banks' balance sheets over the QE period. We find that banks that took part in gilt sales saw increases in reserves and OFC deposit positions but that only a portion of the proceeds remained at the end of the month. Indeed, we also show that the variability of banks' deposit and reserve positions increased during QE, which could be consistent with the portfolio rebalancing channel of QE. These findings help inform our empirical tests of the bank lending channel and our interpretation of them.

A key challenge for empirical work on the bank lending channel is to isolate changes in lending caused by changes in deposits, from changes in deposits caused by new lending (an endogenous variation in deposits). We attempt to address this problem using an instrumental variables approach. Our approach makes use of the fact that while most gilt purchases were from OFCs, these had to be settled via banks who were market makers in gilts. As these gilt sales were likely to be unrelated to banks' lending decisions, we can use data on gilt sales to remove the endogenous variation in banks' OFC deposit holdings and so test for a bank lending channel using an instrumental variables approach.

We find no statistically significant evidence that those banks who received increased deposits from QE lent more, all else equal. Our results do not preclude a bank lending channel, but if the effect were very powerful it seems unlikely there would be no evidence of it in our tests. While our results do not provide an explanation of why such a channel did not operate, our framework suggests that if QE gave rise to flighty deposits, then the traditional BLC would be diminished. And our analysis suggests that QE has been associated with an increase in the variance of banks' reserves and OFC deposits positions. This is consistent with the idea that there was no bank lending channel from QE precisely because portfolio rebalancing was occurring and is therefore consistent with other studies which show that QE boosted aggregate demand and inflation. UK policymakers did not rely on QE to boost bank lending and our evidence lends support to the use of other policies, rather than QE, to attempt to improve the supply of credit.