

# Research Seminar "Quantitative Economics"

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[Mauricio Salgado Moreno](#) (BOE)

Abstract

## **Quantitative Easing and Quantitative Tightening: The Money Channel**

(Michael Kumhof & Mauricio Salgado Moreno)

### Abstract

We develop a DSGE model in which banks interact with the real economy through retail loan and deposit markets, and with each other through reserves and interbank markets. Because banks disburse loans through deposit creation, they never face financing risks (being unable to fund new loans), only refinancing risks (being unable to settle net deposit withdrawals in reserves). Deposit withdrawals, which affect the funding cost and loan extension of one part of the banking sector at the expense of another part, have highly asymmetric effects, and affect aggregate financial and real conditions. The quantity and distribution of central bank reserves, and the extent of frictions in the interbank market, critically affect the size of these effects, and can matter even in a regime of ample aggregate reserves. Under conditions of scarce reserves, countercyclical reserve injections can help to smooth the business cycle. Based on a careful calibration of the model, we evaluate the welfare effects of different countercyclical reserve quantity rules, and find that they can make sizeable contributions to welfare that are of a similar size to the Taylor rule.