EUROPEAN CENTRAL BANK

EUROSYSTEM

Discussion of “Quantitative easing and local banking systems in a model of the Euro Area” by Ciaran Rogers

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Introduction

- QE in the form of various asset purchases has been one of the main monetary policy instruments since 2010
- By now there is some evidence that QE was successful in reducing the interest rates on the securities bought with an expansionary effect on the real economy
- However, we still do not have a perfect understanding of the exact quantitative significance of all the QE transmission channels identified in theory
- This paper: quantifies the impact of QE through the liquidity provision channel in a macro model of the euro area

Key features of the model

- 2 country model of the euro area
- Households
  - Derive utility from the real value of nominal deposits
  - Non-separability (complements) of deposits and consumption
- Firms borrow from banks to pay for inputs using cash flow as collateral
- Banks issue deposits in their home country
  - Subject to “risk-weighted” capital constraints: reserves have the lowest (but still positive) risk weight
  - Monopolistically competitive in the deposit market
- Central bank: conducts asset purchases, pays interest on reserves acc to a Taylor rule

Key implications

- Deposits in the utility function (DIU)
  - Liquidity premium (convenience yield): deposits earn less than the risk-free rate
  - Non-separability:
    - consumption depends on real deposits and the liquidity premium
    - labour supply also affected by the liquidity premium

- Loans cheaper than equity for firms because banks use loans as collateral to back low yielding deposits: collateral premium
  - Firms require external finance so collateral premium affects costs
  - But: does QE raise loan rates faced by firms?

- CB asset purchases bonds with reserves
  - Reserves have a lower risk weight than bonds: banks expand deposit supply
  - Liquidity premium falls: higher consumption and labour supply

The paper in the literature

- Several QE channels embedded in quantitative macro models

- Bank capital relief: Gertler and Karadi (2011), Karadi and Nakov (2020)
  - QE takes bonds off bank balance sheets freeing capital to finance lending
  - Amplification through the impact of higher long-term asset values on leveraged bank balance sheets

- Liquidity effects: this paper
  - QE frees up balance sheet capacity, allowing more deposit creation
  - Positive effects on demand and supply as liquidity premia feed into firms' costs and households' consumption and labour supply decisions

- Impact on sovereign fiscal capacity: Elenev, Landvoigt, Shultz and Van Nieuwerburgh (2021)

Comments

- Very polished paper, easy to read and follow

- Important framework (also related paper with co-authors Piazzessi and Schneider):
  - Rich model but mechanisms clearly identified

- Introduce liquidity effects through a standard approach (DIU) but then derive very interesting implications
  - Model determinate even if the Taylor principle is not satisfied
  - Many extensions and policy applications possible

Comments (2)

- The model begs a number of questions that were also raised in yesterday's discussion
  - Why do liquidity premia exist in the model and in practice?
  - Are liquidity premia always there?
  - What does this mean for the effectiveness of QE?

- Other comments more specific to the paper
  - Role of local deposit markets
  - Treatment of the ELB
  - Possible extensions

Why is liquidity scarce in the model?

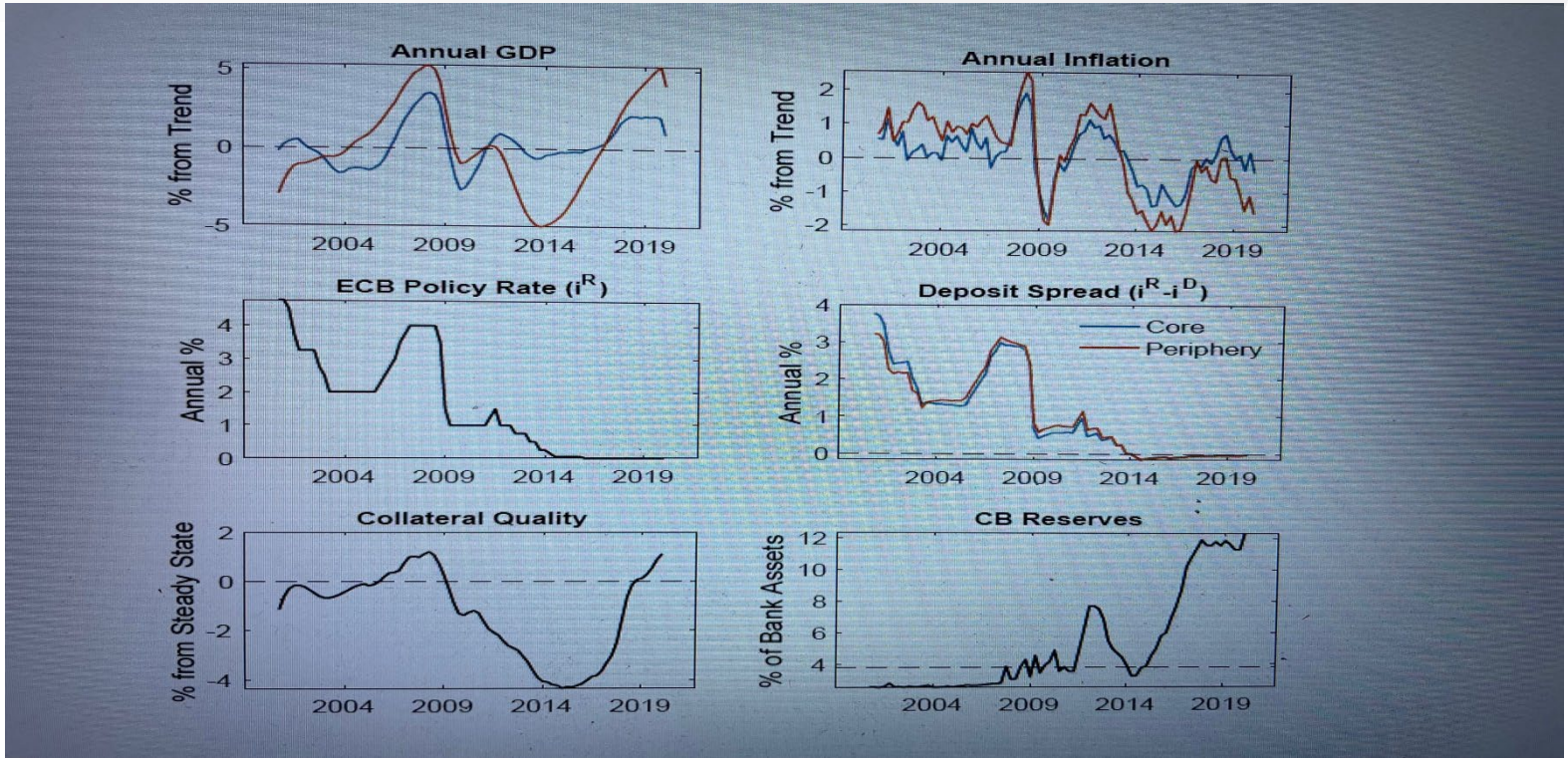
- In the model, liquid deposits are scarce leading to a spread between deposit rates and the interest rate on reserves.

- Banks do not ‘arbitrage’ these spreads by expanding their balance sheets
  - Imperfect competition
  - Issuing loans is difficult due to capital constraints
  - Reserves and bonds also subject to limited pledgeability

- Does it matter for the effectiveness of QE whether liquidity premia are due to imperfect competition or to limited pledgeability? Why do you need both?

- But why are reserves and bonds subject to limited pledgeability?
  - Regulation? No: zero risk weight
  - Depositor demands? No: safe assets + deposit insurance

Is liquidity actually scarce?



Is liquidity actually scarce? (2)

- Before 2014, it was scarce ($r_s > r_d$) then not ($r_s = r_d$). Why?

- Figure 6 suggests two possibilities
  - QE programs leading to ample liquidity
  - Growing competition from cash as the interest rate on reserves reached the ZLB, squeezing banks' margins?

- How should we think of this through the lens of the model?
  - Did QE lose its power from 2014 onwards?
  - Does the answer depend on the reason why $r_s = r_d$?

Role of assuming local deposit markets

- The paper spends much time showing that deposit markets exhibit considerable home bias especially compared to lending markets
  - Why is this important in the model and in reality?

- In the model: not clear as impact of QE is uniform across the 2 countries
  - It would be useful to see the implications of a unified deposit market

- In reality: also not clear if segmented deposit markets matter
  - Normal times: interbank market (IBM) allows financial flows between banks
  - Sovereign debt crisis: IBM flows collapsed but ECB liquidity measures allowed the flows to take place via the ECB's balance sheet

Treatment of the ELB

- Paper proxies the effects of the ELB by a weak Taylor rule
- Why not implement a binding ELB?
- The model is actually more stable due to the endogenous liquidity premia
- A perfect foresight transition with a temporary peg is technically easy in Dynare

Possible extensions

- Adding cash
  - What happens to bank market power and liquidity provision at the ZLB?

- The bank capital and liquidity channels may be complementary
  - More liquidity compresses premia and boosts asset prices
  - Higher asset prices boost bank capital, further compressing liquidity premia
  - Further amplification and a connection between bank capital and liquidity premia
  - Requires the modelling of the bank capital channel via banks' equity retention

Summary

- Nice paper and a very useful framework
  - Liquidity premia work through the model via effects on consumption, labour supply and firms' costs

- A number of questions:
  - Why can't narrow banks eliminate liquidity premia?
  - Is liquidity demand satiated since 2014? What does this mean for QE?

- Multiple extensions and policy applications possible
  - Cash
  - Bank capital channel

Thank you!