Discussion of **Quantitative Easing, Bank Lending, and Competition** by Andrea Orame, Rodney Ramcharan, and Roberto Robatto

Itamar Drechsler

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Questions

1. Do banks affected by large-scale asset purchases (QE) increase aggregate lending? Or do they just substitute lending by less exposed banks?
   - various studies already show that exposed banks increase lending
   - but maybe they just let the more exposed banks take market share from the others

2. Is the new credit going to the most credit constrained firms?
   - if not, then the increased credit will not have much real impact

$\Rightarrow$ Important questions!

Setting and Approach

1. Italy's banking system during the first year of the Public Sector Purchase Program (PSPP) of the ECB
   - PSPP announced January 22, 2015, lasted from March 2015 to December 2018 (restarted again later on)
   - ECB bought €2.10 trillion euro of securities of euro-area governments and official agencies in secondary markets
   - accounted for most of the ECB's QE
2. Detailed microeconomic data: credit registry, loan applications, bank balance sheets
3. Exposure measure: banks' holdings of public securities in their trading book
   - why exclude banking book?
   - there are N=95 banking groups
4. Compare change in lending of exposed banks to non-exposed banks around the PSPP announcement
   - within-firm estimator to control for firms' loan demand
   - compare lending across provinces by loan share of exposed banks

Results

1. Exposed banks increase lending by 2.2% compared to unexposed, but *only* in first month of PSPP announcement
   - estimate €180 increase in loans
   - more by "illiquid" banks (have less cash)

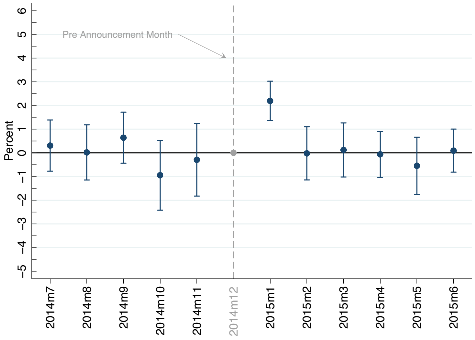
2. Probability a loan application is accepted by exposed bank increases by 5.4% in first month after announcement

3. Branches of non-exposed banks reduce lending in more exposed provinces compared to less exposed provinces
   - suggests exposed banks take some market share
   - effect is again small: 0.43% for 1 stdev change in exposure measure

4. No difference in province-level lending growth associated with exposure to the PSPP

Lending Results (Figure #1)

Figure 1: Effect of QE on bank lending supply, benchmark specification



1. Only a small announcement-month effect (2.2%) on the intensive margin ⇒ €190 million
   - a moderate change to definition of "exposure" cuts estimate further

Comments #1

1. Why is the PSPP so large (€2.1) trillion but its impact in Italy is so small?
   - ECB bought €360 billion of Italian bonds by 2018
   - surprising that impact is small

2. Exposure levels are surprisingly small
   - exposure = eligible securities/Assets:
     Mean: 0.45% **75th percentile**: 0.00%
   - 62.5% of banks have zero exposure (no holdings)
   - conditional on positive holdings, median of eligible securities/assets is 0.08%(!)

3. A bank is labeled as "exposed" if in top 15% of eligible holdings %
   ⇒ only 14 banks are "exposed"
   - exposed banks eligible holdings are only 3% of assets
   - "exposure" unrelated to other bank characteristics

Italian Banks and their Public Securities Holdings

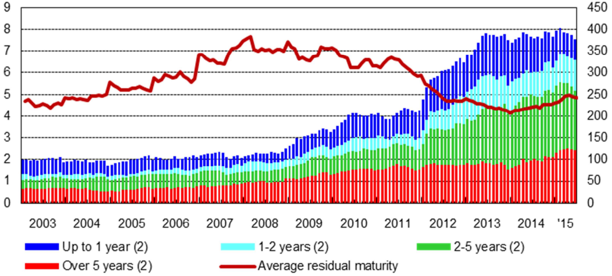
1. 2015 size of Italian Banking system: €3.91 trillion

2. 2015 Italian Banks' holdings of Italian govt bonds: €400 billion
   - 10.5% of total assets, 40.0% of total securities portfolios

Figure 8

Volume and average residual maturity of Italian banks' government securities portfolio (1)

(billions of euros; years)



Source: Bank of Italy, Supervisory reports.
(1) All types of government securities, including those issued by local government. Excludes Cassa Depositi e Prestiti. – (2) Right-hand scale.

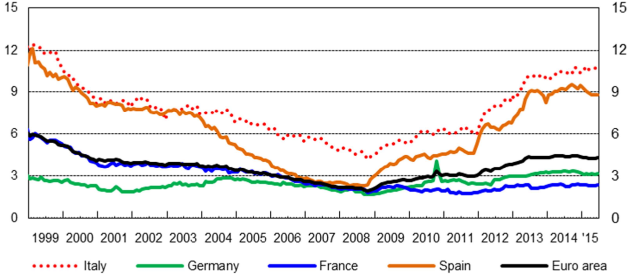
⇒ very large Italian govt bond holdings

Italian Banks and their Public Securities Holdings

1. Italian banks have more public securities than any other European banking system
   - and their importance was growing during this period

Figure 2

Public sector debt held in banks' portfolios: share of total assets (1)
(per cent)



Source: Eurosystem.
(1) All types of public sector securities, including those issued by local government. Inludes Cassa Depositi e Prestiti.

Banking Book vs. Trading Book

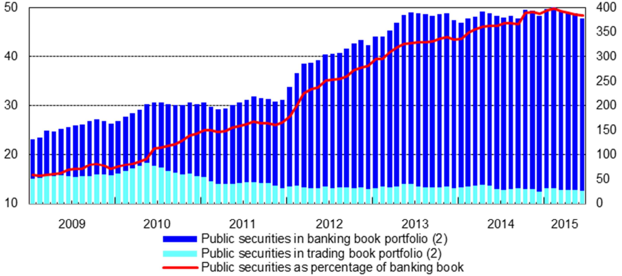
1. They are *not* held in the trading book, they are in the **banking book**
    - the trading book is a small fraction of the banking book

2. Public securities are mostly carried in the banking book as 'available-for-sale' assets
    - as of May 2010 this is encouraged by favorable regulatory treatment

Figure 10

Sovereign securities in Italian banks' portfolio by portfolio type (1)

(end-month stocks in billions of euros; per cent)



Source: Bank of Italy, Supervisory reports.
(1) All types of government securities, including those issued by local government. Excludes Cassa Depositi e Prestiti. – (2) Right-hand scale.

Comments on Analysis

1. Including the banking book into the exposure measure will make it much more economically meaningful for the banks

2. Why not use the continuous measure of banks' exposure instead of a dummy variable?
    - can express the exposure and outcome variables in dollars, either raw dollars or normalized by e.g., 2014 assets

    $\Rightarrow$ interpretable as fraction of public securities held that is results in a loan
    - can test equity channel by using announcement impact on banks' italian debt holdings

3. Use public securities as outcome variable
    - did they sell them?
    - helps to understand channel

Questions and Comments (cont.)

1. How could previously credit-rationed firms get new loans and yet aggregate credit not increase (Tables 6 + 7)?

2. Why refer to it as substitution that

   "PSPP-exposed banks are significantly more likely to form a new credit relationship with a previously rejected firm that also did not borrow from a PSPP-exposed bank."

   - this sounds like a previously rationed firm obtained credit it otherwise wouldn't have

Summary

1. Important questions about LSAPs
2. Great data and sophisticated analysis
3. Would like to see results with exposure variable changed to include the banking book holdings
4. Are the effects still small with revised exposure variable?
    - ECB bought €370 billion Italian bonds
    - what impact did this have?