#### Monetary Policy at Work: Security and Credit Application Registers Evidence

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## Objectives

- Analyze the transmission channel of monetary policy focusing on the impact on securities trading in addition to lending.
- Distinguish between normal and crisis times.
- Investigate whether there are heterogeneous effects depending on (a) bank capital; (b) security and loan yields; (c) haircuts to obtain ECB liquidity; and (d) accounting and regulatory treatment of securities in the banking vs trading book.

## Specific questions posed

- 1. Does softer monetary policy in crisis periods encourage banks to hold more securities?
- 2. Are the effects stronger than for the credit supply channel?
- 3. Do lowly capitalized banks prefer securities holdings to the supply of credit?
- 4. Which banks (those with high or low levels of capital) take on higher yields via securities?
- 5. What happens to credit supply and reach-for-yield in lending?
- 6. What are the monetary policy transmission differences in normal versus crisis times?

### Approach

- Use two rich micro datasets from the central bank of Italy:
  - 1. Register of all security investments of all Italian banks
  - 2. Credit register of all loans granted by banks in Italy
- Investigate the impact of monetary policy on the growth of security holdings and on the probability of accepting a loan application across banks in normal and crisis times.
- Security\*month fixed effects control for securities' time-varying characteristics and help isolate the demand for securities by banks.
- Firm\*month fixed effects control for time-varying factors that can influence the use of credit by firms and, hence, help to identify the supply of credit by banks.

## **Findings**

- In both normal and crisis times, when monetary policy becomes softer, banks increase their holdings of securities.
- Effects are stronger in crisis times for securities than for credit supply.
- <u>During the crisis</u>: Risk bearing capacity and access to ECB liquidity are the main drivers of securities trading. No evidence of gambling for resurrection or regulatory arbitrage
  - o Banks with lower capital:
    - 1. Expand more into securities when monetary policy is softer.
    - 2. Grant less loan applications to the same firm in the same month.
  - There is evidence of reach for yield but only for banks with higher capital: higher capitalized banks buy more securities with higher yield (no evidence of gambling for resurrection).
  - Search for yield results for banks with higher capital hold even when focusing on government bonds (no evidence of regulatory arbitrage).

## Findings

#### O During normal times:

- 1. Banks with lower capital increase credit supply to firms and to higher-risk borrowers when monetary policy is softer.
- 2. But they take lower risks in securities.

#### Overall assessment

- Very interesting paper, using great datasets
- Suggestions for improvement:
  - Better explain the contribution of the study relative to others using similar datasets
  - 2. Strengthen the conceptual framework
  - 3. Try to capture substitution between securities and credit
  - 4. Better justify or reconsider the choice of some specifications
  - 5. Clarify periodicity of data to inform choice of specifications
  - Add more robustness tests

## Comment (1) Better explain the contribution of the study

- Big selling pitch for the paper is the combined use of security and credit register data.
- But two existing papers, Abassi et al. (2016) and Crosignani et al. (2016), use similar data for Germany and Portugal, respectively.
- These studies are currently mentioned in footnotes. They are indeed different in some ways from the authors' papers but this needs to be explained more clearly and upfront.

## Comment (2) Strengthen the conceptual framework

- Questions posed are interesting but expected effects are not obvious and should be discussed more clearly upfront. Section on channels should be moved up and expanded.
- Articulate ex-ante what results would indicate evidence for:
  - 1. <u>Gambling for resurrection/Risk shifting</u> would entail a negative sign on triple interaction of Capital\*Yield\*Expansionary MP, whereby banks with less capital would go for higher risk securities
  - 2. <u>Regulatory arbitrage</u> would imply that lowly capitalized banks would increase their holdings of higher yield government bonds that have zero risk weights.
  - 3. Access to public liquidity would predict that banks with low capital would buy low risk securities that could be pledged at the ECB with small haircuts to get funding.
  - 4. Risk bearing capacity would predict that the results showing that poorly capitalized banks would buy lower yield securities would be driven by securities in the trading portfolio.
- Similarly, there should be a conceptual discussion of the frictions that could give rise to the effects found (e.g., agency problems, moral hazard).

# Comment (3) Try to capture substitution between securities and credit

- Questions such as:
  - 1. Does softer monetary policy in crisis encourage banks to hold more securities? Are the effects stronger than for the credit supply channel?
  - 2. Do lowly capitalized banks prefer securities holdings to the supply of credit?

suggest some degree of rebalancing of banks portfolios to securities and away from credit. If this is the focus of the paper, specifications should reflect this more explicitly.

- Currently, impact of MP on securities and credit is treated independently in the estimations.
- Perhaps estimations at the bank-level could be added to examine the composition of banks' balance sheet between securities holdings and loans.

# Comment (4) Better justify or reconsider the choice of some specifications

#### Growth vs. levels

- For securities regressions why use as dependent variable a growth rate measure (net buy)?
- Why not use level of securities holdings?

#### LTRO regressions

- Why only look at period after LTRO implementation? Why not instead include a window before LTRO and compare the before and after LTRO along with interactions currently considered? Otherwise, we cannot say anything about how the loosening of monetary policy affects security holdings.
- Why not examine the behavior of bank loans around the LTRO episode?
- O How big are the LTRO results economically?

## Comment (5) Clarify periodicity of data to inform choice of specifications

- What periodicity are bank-level controls?
- Why don't we see in Tables 3-7 the independent effect of the capital ratio?
- Why not always include bank fixed effects? Effect of cap ratio \* expansionary
   MP typically disappears with bank fixed effects

### Comments (6) Add more robustness tests

- Do results change if instead of using Taylor rule residuals for the period pre-2008, actual ECB policy rates are used (as done in other papers)?
- Paper focuses on bank capital as the critical bank-level variable, but what about the role of other factors (liquidity, size, trading expertise, etc.) which could influence banks' reactions to monetary policy?
- Why focus only on loan applications and not also consider the amount of loans granted?

## Thank you