

# Discussion of

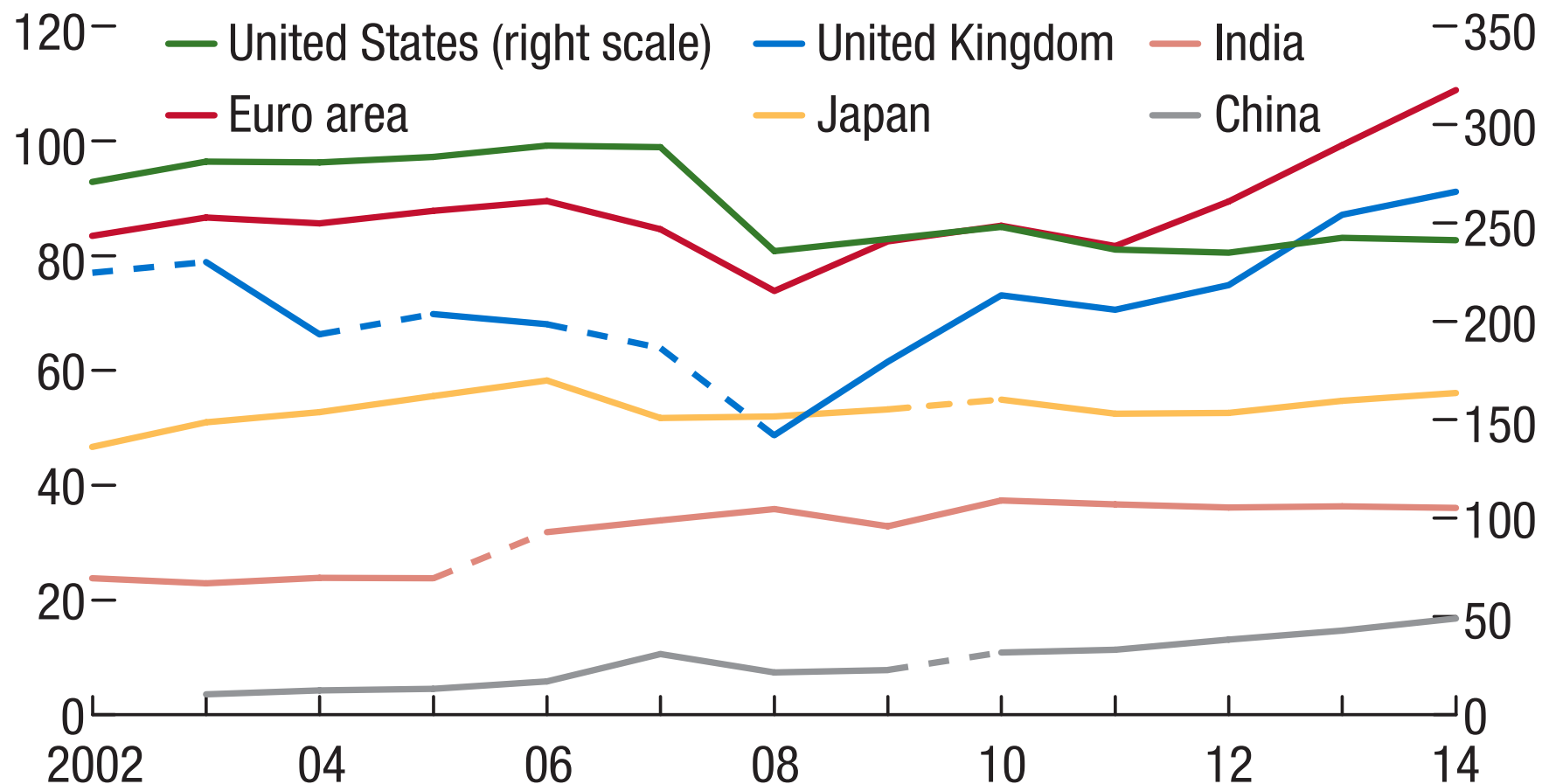
## *The implications of non-bank activities on the transmission of monetary policy*

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# The rise of nonbanks financial intermediaries

## 5. Relative Importance of NBFIs (Percent of bank assets)



IMF Global Financial Stability Report 2016

## Not clear the monetary policy (MP) effects

- There is a larger role for non-banks, such as shadow banks, insurance companies, pension funds, and asset management firms
- Non-banks are very important for financial intermediation in US and have become more important in Europe and in some emerging market economies
- Has the rise of non-bank financing implied that the transmission of MP is less powerful? Which are the MP channels more affected?
- Credit/ risk-taking channels of MP depend on frictions that can be alleviated with a more sophisticated financial system, e.g., the bank lending channel of MP: As Anil was saying and shown (*AER* 1993), non-banks can provide debt when banks are not lending enough
- Non-banks may also amplify the MP transmission: e.g. with negative MP rates, non-banks (via wholesale) may finance themselves more with lower rates than banks relying more on retail depositors, thereby passing lower loan rates to firms

## Lack of detailed empirical evidence

- Scant empirical evidence
- The IMF Global Financial Stability Report (2016) finds that the increasing importance of non-banks for financial intermediation has, if anything, strengthened monetary policy transmission over the past 15 years
- Why could there be positive (or negative) effects of non-banks for the strength and speed of transmission of MP?
- I am going to use bank micro evidence and non-bank and bank micro evidence to make some further comments
  - Bank evidence is also useful as we need to understand which financial frictions make MP less effective in general
  - I use evidence combining financial security trading and loans, as non-banks significantly trade with securities

## Securities trading implies negative spillovers on credit?

- Banks and non-banks may reduce the supply of credit to the real sector by putting more capital in the secondary market in securities which may not be directly related to non-financial firms, e.g. when the returns in fire-sold assets may be very high
  - “Adverse spillovers from a fire sale of this sort may also take the form of a credit crunch that affects borrowers more generally. Such a credit crunch may arise as other financial intermediaries (e.g., banks) withdraw capital from lending, so as to exploit the now-more-attractive returns to buying up fire-sold assets. Ultimately, it is the risk of this credit contraction, and its implications for economic activity more broadly, that may be the most compelling basis for regulatory intervention.”  
Jeremy C. Stein, Governor of the Federal Reserve Board, 2013
  - Recent policy initiatives on limiting security trading by banks: Volker Rule in Dobb-Frank in US, Likaanen Report in EU and Vickers report in the UK, one concern here is financial stability (excessive bank risk-taking) but the other is also the potential crowding out of lending

## Securities trading implies negative spillovers on credit?

- Abbassi-Iyer-Peydró-Tous (*JFE*, 2016) analyze securities trading by banks during the crisis and the associated spillovers to credit supply
- We use a proprietary data set that has the **investments of banks at the security level** for **2005–2012** in conjunction with the **credit register** from **Germany**
- During the crisis, banks with higher trading expertise (trading banks) increase their investments in securities, especially in those that had a larger price drop, with the strongest impact in low-rated and long-term securities (ex-post returns of 12% in the crisis)
- These trading banks at the same time reduce their credit supply, and the credit crunch is binding at the firm level
- Overall, our results suggest an externality arising from fire sales in securities markets on credit supply via the trading behavior
  - Intuition tell us that effects would be stronger with non-banks that tend to trade massively in financial securities

## What can Monetary Policy do?

- Increase liquidity thereby reducing fire sales, and hence the attractiveness of securities not related to firms versus loans to firms
- This may also imply portfolio rebalancing from securities to loans, as loan rates can yield a higher yield than
- However, some academics and commentators have argued that central bank liquidity may go to financial intermediaries that risk shift or gamble for resurrection with that public liquidity
- What does the evidence tell us?

# Monetary policy evidence

- In Peydro-Polo-Sette (2016), we study the transmission channel of monetary policy focusing on banks' securities trading, in addition to credit supply
- Results are informative about the potency/limits of the bank lending channel of monetary policy and about some key financial frictions for financial intermediaries in general, not only banks
- For identification, we exploit, **since 1999** (the creation of the euro), the comprehensive security and credit registers owned by the central bank of **Italy** in its role of supervisor:
  - We know the **loan applications, as well as all individual loans and securities held by banks every month**



## Motivation: post-2008 and current events

- Commentators have suggested that low growth during (and after) the crisis is due to too much leverage, including too little bank capital (e.g., Rogoff, 2014; Admati & Hellwig, 2013), others argue about lack of investment opportunities (Summers' secular stagnation)
- Monetary policy has been a key, active public policy since 2007
  - Claims that e.g. in the Euro Area the ECB or the UK's BoE should do more, others that it has done too much (e.g. FT, WSJ, politicians...). Not very clear the transmission of monetary policy
- Central banks massively expanded their balance sheet since 2008, with main MP rates at 0%, but the huge liquidity to banks may not have gone to lending to the real sector, but into securities holdings by banks...
- in particular if the banking system is impaired...: *“Credit and lending is clogged when excessively leveraged banks (funded with too little equity) suffer from “debt overhang.” It is not “excessive capital” (equity) that interferes with lending”* (Admati, 2011)

# Reach-for-yield and risk-taking channel of monetary policy

- Media and some academics suggest that expansive monetary policy rates (low MP rates, QE) may induce a reach-for-yield
  - The risk-taking channel of MP, Adrian and Shin (*Handbook of Monetary Economics*, 2011)
  - In Jimenez, Ongena, Peydro and Saurina (*Econometrica*, 2014) we have evidence, but it is related only to loans in normal times. Yet, banks and non-banks may search for yield more easily and quickly by adjusting their portfolio of securities, with potentially higher incentives in crisis times when the value of capital is lower
- Key issue is relationship between monetary policy and financial stability

## Results (1):

### Bank heterogeneity: capital in crisis times

- When monetary policy conditions become softer, during the crisis, not only do banks increase more securities than credit supply, but also
- Banks with lower capital buy more securities but reduce more credit supply to firms (in comparison to higher capitalized banks)
  - For loan applications of the *same* firm in the *same* month, banks with lower (wrt higher) capital grant less applications when MP is softer
  - Most securities are not from non-financial firms, so the MP does not arrive to the real sector
  - Therefore, apart from higher bank capital, a diversified financial system with non-banks can bring more liquidity from central banks to private firms for investment, growth and employment
    - Non-banks can thus strengthen the transmission of MP
  - Note also that non-conventional MP by reducing fire sales and security returns makes loans relatively more attractive

## Results (2):

### Securities heterogeneity: reach-for-yield in crisis

- Crisis times: an expansion in securities to higher yield are by banks with higher capital (not by the lower capitalized banks). Which channels/frictions explain the results?
  - Gamble for resurrection by low capital banks: NO (results are opposite)
    - Results are not consistent with some papers that basically argue that non-conventional MP was used by riskier banks to gamble for resurrection
  - Risk weights: NO (results go equally thought via government securities)
  - Access to public liquidity: YES (stronger results for securities with higher ECB haircut)
  - Risk-bearing capacity: YES (very different results for securities under trading book and available for sale versus held to maturity)

## Non-banks and banks and monetary policy

- In Abbassi-Iyer-Peydró-Timmer (2016) we analyze how the allocation of risk in the economy changes across financial intermediary (FI) types in response to MP and VIX shocks
- Supervisory **securities register data of banks & non-banks (2009-2015)** in **Germany**: for each FI we know each security they hold in each quarter
- During times of higher financial market stress or MP rates, non-bank FIs sell more risky assets and buy more safe assets than banks
  - Further fragility within non-banks, depending on whether the main investor is a FI, and within banks, depending on reliance on wholesale funding
- A riskier security experiences a larger price drop when the MP rate and/or VIX rise if the holding of the security is relatively higher by non-banks
- Overall the results highlight both the fragility that can arise due to the growing size of non-bank FIs and the role played by banks as risk absorbers in times of crises or when higher MP rates

# Monetary policy affects both banks & non-banks, BUT

- In Freixas-Laeven-Peydro (*MIT Press*, 2015), we argue that monetary policy operates through market-determined prices, thus it applies to both regulated and unregulated financial intermediaries, different from macroprudential policy, BUT some caveats:
  1. Reserve requirements (RR) are more used in EM, these can be arbitrated by non-banks unless these ones are also affected. E.g., with RR the central bank can target foreign wholesale bank finance (Dassatti-Peydro-Tous, 2016), but as macroprudential policy, it can be arbitrated (examples by Anil in his discussion or in Jimenez, Ongena, Peydro and Saurina, *JPE* forthcoming)
  2. Some non-conventional MP instruments only work via banks (LTRO/TLTRO in Europe), but the Federal Reserve's ones instead operated also via nonbanks. Others such as QE via buying of public and private financial securities or negative MP rates (even if charged on excess bank reserves) can affect the whole economy

## Final comment: international spillovers

- With large globalized banks and low MP rates and QE, European and US non-banks (especially less global) may step in local lending, as global banks may prefer to reach for yield in foreign, emerging markets
- Morais-Peydró-Ruiz (2015) analyze the **Mexican credit register (2001-2015)** and exploit foreign MP shocks via foreign European & US banks
- A softening of foreign MP strongly increases the credit supply of foreign banks to local firms
  - Each regional MP shock mainly affects supply via their respective banks (e.g., U.K. MP affects credit supply in Mexico via U.K. banks), in turn implying strong real effects, including firm total assets, net investment, employment and survival
  - The impact of low foreign MP rates and QE via foreign banks is stronger on local borrowers with higher ex ante loan rates (reach-for-yield) and ex post loan defaults, thus suggesting an international risk-taking channel of MP
- Spillovers of core-countries' MP on emerging markets, in the foreign MP softening part (with higher credit and liquidity risk-taking by foreign banks) and in the tightening part (with the negative associated local real effects)
- Emerging markets can react by local macropru or capital controls, or there can be global coordination of monetary policies...