Lender of Last Resort versus Buyer of Last Resort - Evidence from the European Sovereign Debt Crisis

Viral Acharya, Diane Pierret, Sascha Steffen

Discussant:

Yiming Ma (Stanford GSB)

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An Important Question

This paper studies the effectiveness of two unconventional ECB policy measures in stabilizing the European banking sector

- Unconventional monetary policies have been increasingly deployed since the recent financial crisis
- But still uncertainty regarding effectiveness and the channels of transmission
- Europe is a nice laboratory
    - Sovereign debt crisis
    - Variety of measures introduced by the ECB
- Rich information along a variety of dimensions

Overview

- An important question
- LTRO and OMT timeline : concurrent events
- Fire-sale risk channel : causation
- Holdings channel : interpretation

Two Main Policy Measures

Long Term Refinancing Operation (LTRO)

- Extension of Main Refinancing Operation (MRO) to 3 years
- *"The Governing Council of the European Central Bank (ECB) has today decided on additional enhanced credit support measures* **to support bank lending and liquidity** *in the euro area money market."* - ECB Press Release

Outright Monetary Transactions (OMT)

- Purchase 1 to 3 year government bonds subject to conditions
- *"the main aim of the OMT is* **to remove tail risk to overcome monetary and financial fragmentation of the euro area that would stem from a redenomination risk.**" - Draghi

Timeline

Long Term Refinancing Operation (LTRO)

- Dec 08, 2011: Announcement of 3 year LTROs
- Dec 21, 2011: LTRO I
- Feb 29, 2012: LTRO II

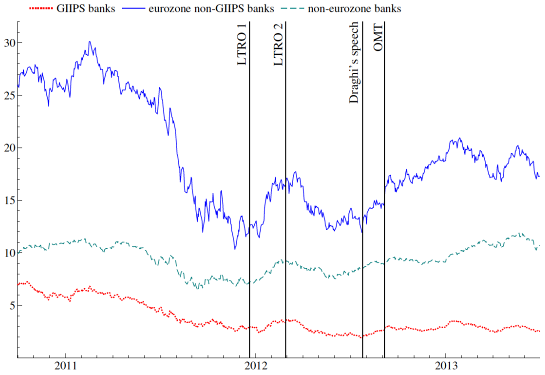
Outright Monetary Transactions (OMT)

- Jul 26, 2012: *"..the ECB is ready to do whatever it takes to preserve the Euro"* - Draghi
- Aug 02, 2012: Announcement of OMT
- Sep 06, 2012: OMT

Preliminary Results

"...LTROs interventions did not stabilize banks but rather increased bank and financial sector credit risk. The OMT, however, permanently increased financial stability..."

(a) Average bank equity prices (€)



But Other Things Were Happening Too...

In 2012 for example,

- Jan 13: S&Ps downgrades Spain, Italy and five other euro members
- Feb 21: Second bailout package for Greece finalized
- May 06: No party gains majority in the Greek legislative election

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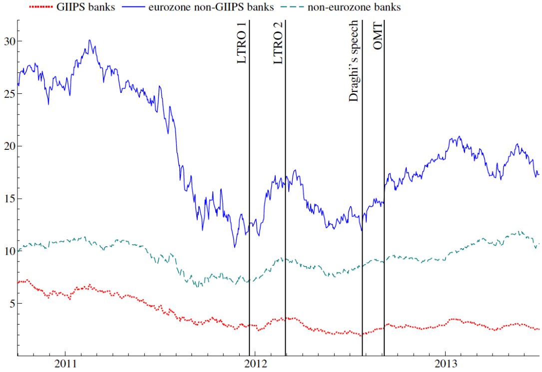

Fire-sale Risk

Evidence consistent with Diamond and Rajan (2011):

- *"Because the risk of GIIPS sovereign bonds is not reduced following the LTRO interventions, we observe a rotation of risky assets from low-risk to high-risk banks...The LTRO liquidity injections therefore contributed to more fragmented sovereign bond markets...."*
- *" After the OMT program announcement, non-GIIPS banks invest again in both short-term and longterm GIIPS sovereign bonds."*

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- *" After the OMT program announcement, non-GIIPS banks invest again in both short-term and longterm GIIPS sovereign bonds."*
- **But were these really due to the intervention per se?**

Panel B: Change in sovereign bond holdings (% of country outstandi

	Change in home exposure					
	GIIPS	Italy	Spain	France	Germany	UK
Dec 2010 - Dec 2011	-1.3	-1.4	-2.0	-1.4	-1.4	-1.9
Dec 2011 - Jun 2012 (post LTRO)	1.8	1.9	1.2	0.6	-0.7	-0.3
Jun 2012 - Dec 2012 (post OMT)	0.2	0.8	-1.3	1.5	0.0	-0.4
Dec 2012 - Dec 2013	-1.2	0.1	-3.9	0.6	-1.0	0.8

Holdings Channel

- **Cleaner identification: 1 day pre post event date equity CAR and CDS CARs**
- "...a reduction in bank risk and an improvement in bank profitability for banks holding short-term GIIPS sovereign bonds around the LTROs announcement dates..."
- "...while the effect of the announcement of the OMT program details does not appear to be specifically related to banks sovereign bond holdings..."

Holdings Channel

- **Interpretation: banks' sovereign bond holdings became less risky versus banks' funding constraints were alleviated ?**
- Note that the main goal of LTRO was the latter
- e.g. 3-year LTROs increased bank lending to firms in Italy by 2% (Carpinelli and Crosignani, 2015)
- Pre-treatment controls, e.g. total GIIPS exposure, are not sufficient to distinguish the two
- Both load on the pre treatment holdings of sovereign bonds
- Same issue applies to Granger causality results

Conclusion

- Very interesting facts and analysis on an important question!
- Difficult to attribute observed changes in credit risk and sovereign bond holdings to policy changes because of concurrent events, especially those between LTRO and OMT
- Interpretation of holdings channel is not clear

Suggestions

Easier said than done...

- Very interesting facts and analysis on an important question!
- Difficult to attribute observed changes in credit risk and sovereign bond holdings to policy changes because of concurrent events between LTRO and OMT
  - Look at time series changes of sovereign bond holding concentration
  - Do not make it a direct comparison of LTRO and OMT or LOLR and BOLR. Focus on fire-sale risk a la Diamond and Rajan (2011) in the case of OMT.
- Interpretation of holdings channel is not clear
  - Break down balance sheets. What are the relative changes for sovereign bonds versus other components e.g. firm loans?