Discussion of Sovereign Credit Risk, Liquidity, and the ECB Intervention: Deus Ex Machina?

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Introduction

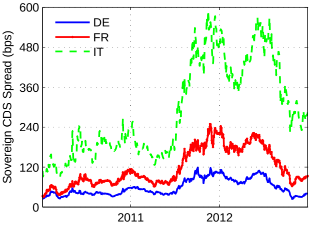
- Interesting and innovative paper covering a lot ground:
  - Funding vs Market liquidity
  - Sovereign bond premia
  - Central Bank interventions
  - Credit risk
- Discussion will focus on suggestions to improve/sharpen some of the findings.

Variable Description

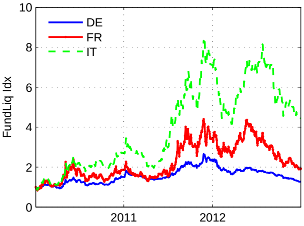
Source: Nguyen, G. (2014). *Funding Liquidity and Market Liquidity Spillovers during the Euro Area Sovereign Debt Crisis*, UNC–CH Working Paper.

- Sovereign Credit Risk:
  - Daily sovereign CDS spread (5–yr) for each country
- Funding Illiquidity:
  - First PC of panel of daily CDS spreads (5–yr, senior debt) of major banks in each country (1/1/2010 value = 1)
- Market Illiquidity:
  - Daily bid ask spreads
  - Averaged across benchmark bonds with 9–11 YTM
- Volatility:
  - Daily standard deviation of 5–minute log midquote return (bps)
  - Averaged across benchmark bonds with 9–11 YTM of each country

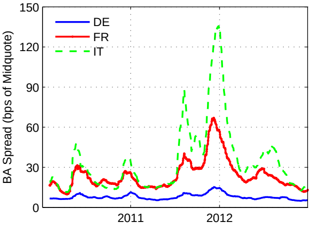
Time Series Variation 2010–2012



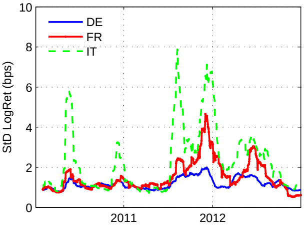
(a) Sovereign Credit Risk



(b) Funding Illiquidity

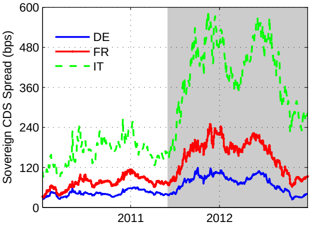


(c) Mkt Illiquidity (22d MA)



(d) Volatility (22d MA)

Data in Pelizzon et al.



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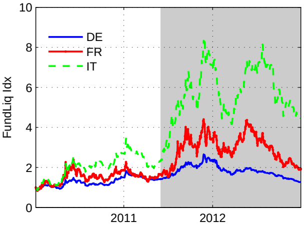
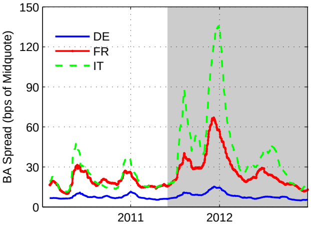


(b) Funding Illiquidity



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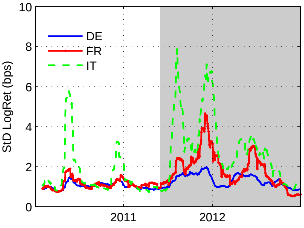

(d) Volatility (22d MA)

ECB interventions during sample studied by Pelizzon et al.

Description & Acronym	Date	(My own) characterization
Securities Markets Programme (SMP) SMP2	Aug 8, 2011*	TIMID
Long-Term Refinancing Operations (LTRO)	Dec. 8, 2011	CLEVER
Outright Monetary Transactions (OMT)	July 26, 2012	BOLD

* Spreads on Italian and Spanish bonds decreased by almost 100 basis points on 8 August 2011, after a press release stating that the ECB would actively implement its Securities Markets Programme.

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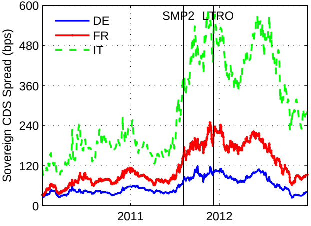

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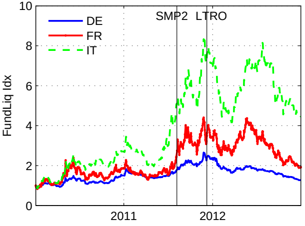
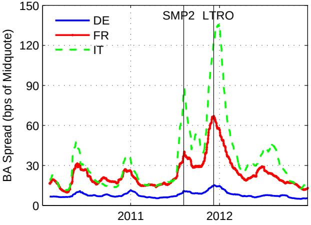
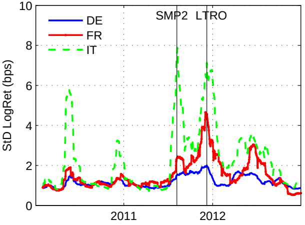


(b) Funding Illiquidity

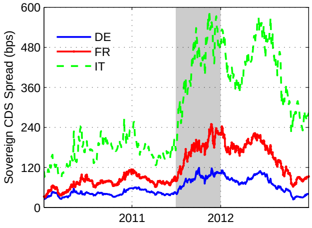


(c) Mkt Illiquidity (22d MA)

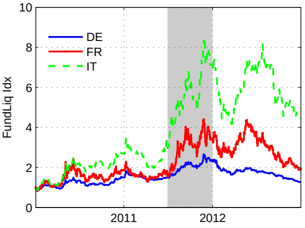


(d) Volatility (22d MA)

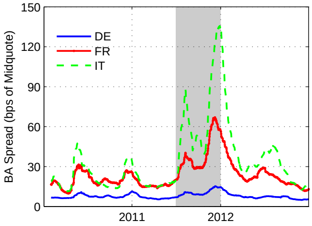
Time Series Variation 2010–2012



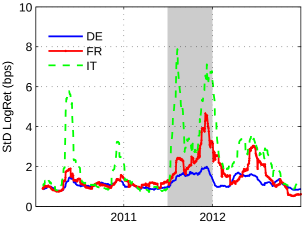
(a) Sovereign Credit Risk



(b) Funding Illiquidity



(c) Mkt Illiquidity (22d MA)



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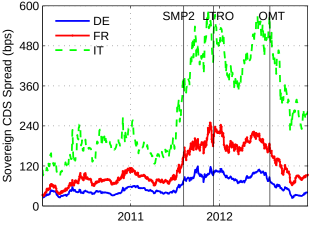

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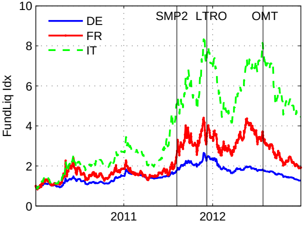
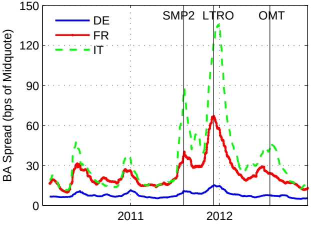


(b) Funding Illiquidity



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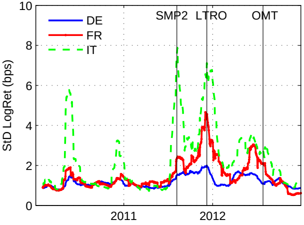

(d) Volatility (22d MA)

ECB Interventions

	MKT LIQ	FUNDING LIQ
SMP2	(TEMPORARILY) IMPROVED	WORSENED
LTRO	IMPROVED	(TEMPORARILY) IMPROVED
OMT	IMPROVED	IMPROVED

ECB Interventions: Deus Ex Machina?

- Perhaps not all ECB interventions were as divine as suggested in the paper.

- An interesting extension/improvement of the paper might be to show that interventions which did not address funding risk had limited success.

ECB Interventions and MTS

Source: Ghysels, Idier, Manganelli and Vergote (2013) *A high frequency assessment of the ECB Securities Markets Programme*, CEPR Discussion Paper No. 9778 (under revision)

- Uses **intra-daily time stamped** data on purchases of the ECB Securities Markets Programme - in addition to timing: price, quantity, maturity, country.
- Finds a significant negative impact of SMP interventions on yields.
- Finds that SMP purchases succeeded in reducing volatility of government bond yields of the countries under the programme.
- Note that ECB intervention do **not** take place via MTS.

Some econometric issues

- Structural break test is not Chow test, and test implemented does not have an asymptotic F distribution.
- The test is a $SupWald$ test, and its asymptotic distribution is non-standard (for the same reason as the threshold test has non-standard asymptotic distribution). See Andrews (1993).
- Easier procedure is $SupLM$ test, see e.g. Ghysels (1998).
- Working with a larger sample, starting earlier (all of 2011 and before) would also be beneficial.

Summing up

- Nice paper breaking new ground on the intriguing relationship between liquidity/funding risk and policy interventions.
- Suggestion to expand the analysis of ECB interventions - notably by including SMP2.
- Need to revisit structural break arguments.