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Comments of "Whatever it takes: The Real Effects of Unconventional Monetary Policy"

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EUROPEAN CENTRAL BANK

EUROSYSTEM

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IMF Annual Research Conference

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This paper 1

- Analyzes impact of ECB's announcement of **Outright Monetary Transactions (OMT)** program on (a) sovereign yields (b) volume of bank loans and (c) firm decisions on cash, debt, employment, and investment in euro area
- Using dataset of syndicated loans and firm balance sheets linking firms to banks, and banks to sovereigns
- Finds that OMT, by depressing sovereign yields of periphery countries, indirectly "recapitalized" periphery country banks by boosting the value of their sovereign bond holdings
- This led to **increased supply of loans** to firms but there is no impact on real activity like employment or investment

This paper 2

- Identification of effect of changes in value of bond holdings on loan supply achieved by: (a) difference-in-difference estimator comparing lending by banks with high vs low OMT windfalls before and after OMT announcement, and (b) controlling for changes in loan demand and quality of firms by grouping firms into clusters based on credit quality
- OMT windfall gain of bank *b* is computed as **change in value of GIIPS sovereign debt holdings** divided by total equity
- Identification of effect of changes in value of bond holdings on corporate decisions achieved by assessing differential effect of indirect OMT windfall gains, computed as average OMT windfall gains of firm's syndicate banks weighted by fraction of syndicated loans from each bank
- Contributes to literature on the real effects of unconventional monetary policies using micro-level evidence
- Focus is on establishing underlying **channels**: Use of micro level data and focus on announcement effects cannot gauge macroeconomic effects

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Comments 1

- Identification is achieved by focusing on a direct balance sheet channel: **the value of banks' holdings of sovereign holdings**
- But there are **many other—including indirect—channels** through which OMT, by lowering sovereign bond yields, may have boosted lending and real activity
- Changes in long-term government bond yields are an important driver of corporate bond yields and bank lending rates, either through **arbitrage relations** or through sovereign bonds directly serving as a **benchmark** for the pricing of loans and other assets
- By depressing sovereign bond yields, OMT improved financial conditions in stressed economies not only for banks but also for the economy as a whole (including for firms)
- This could have improved firm-bank relationships beyond the direct effect on sovereign bond holdings that are not controlled for
- Lack of positive real effects contradicts other existing evidence and "smell" tests

Comments 2

- Not a true diff-in-diff because do not have data on multiple bank-borrower relationships to fully absorb bank and borrower fixed effects
- OMT windfall gain not GIIPS specific: Market value of banks in non-GIIPS countries also changed (and in most cases increased); need to account for this in OMT windfall gain computation
- **Data limitations**:
  - Dealscan covers large firms only, while effects may be more pronounced for small firms (Ferrando, Popov and Udell 2015)
  - Paper uses data on lead arranger in a given syndicate to link firms to banks but lead arranger generally only extend a fraction of the loan; data on fraction financed by each syndicate member often missing; this could create bias (for instance if lead arrangers obtain systemically higher OMT windfall gains or are located in core economies)
  - Incomplete sample of banks and yields: Only EBA banks, and only three out of five GIIPS countries (Italy, Portugal, and Spain) since yield data for Greece and Ireland are missing

Channels for policy impact on government yields

- Signaling: Future monetary stance of the ECB
- Duration risk
- Default risk: Including multiple equilibria
- Market segmentation: Price pressure leading to violations of standard pricing relations
- **Redenomination risk**: Risk of leaving euro/euro breakup

Rationale for Outright monetary transactions (OMT)

- As of August 2012, financial fragmentation had created widely divergent borrowing costs for firms and households across euro area countries, severely impairing the transmission of monetary policy
  - impairments to inter-temporal arbitrage
  - market segmentation due to impairments across banks, markets and countries, exacerbated by adverse bank-sovereign feedbacks
  - default risk associated with losses in competitiveness, lack of fiscal sustainability and financial risks in national banking systems; multiple equilibria
  - **redenomination risk**: “bad equilibrium” of an adverse scenario, triggered by self-fulfilling and reinforcing expectations, reflecting fears of a possible imminent euro-area break up
- Spreads of Spanish and Italian 10-year government bonds over Bunds had increased by 250 bp and 200 bp compared to year before; re-pricing not supported by changes in fundamentals; inversion of yield curve in Italy and Spain

OMT announcement

- July 26, 2012 (ECB press conference): “Within our mandate, the ECB is ready to do **whatever it takes** to preserve the euro.”
- August 2, 2012 (ECB press conference): “The Governing Council, within its mandate to maintain price stability over the medium term and in observance of its independence in determining monetary policy, may undertake outright open market operations of a size adequate to reach its objective. [...] Furthermore, the Governing Council may consider undertaking **further non-standard monetary policy measures** according to what is required to repair monetary policy transmission. Over the coming weeks, we will design the appropriate modalities for such policy measures.”
- September 6, 2012: Details announced regarding the OMT: “Transactions will be focused on the shorter part of the yield curve, and in particular on sovereign bonds with a maturity of between one and three years.” “**No ex ante quantitative limits** are set on the size of Outright Monetary Transactions.”
- As of today, no bonds have been purchased under the OMT program
- OMT was motivated by perceived redenomination risk: President Draghi on OMT, Dec 6, 2012: “we said that 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**”

OMT program modalities

- OMTs are **secondary** bond market purchases
- Necessary condition for OMTs is strict and effective **conditionality** attached to appropriate European Financial Stability Facility/European Stability Mechanism (EFSF/ESM) program
- OMTs are not to interfere with pricing of sovereign bonds on basis of economic fundamentals and respective credit and liquidity risks of the sovereign. The goal of OMTs is a narrow one: to eliminate unwarranted and self-reinforcing fears of euro area breakup that have undermined ability to effectively conduct monetary policy in pursuit of price stability
- OMTs are an instrument tailored to **multiple equilibrium problem**; insurance device against redenomination risk, in sense of reducing probability attached to worst-case scenarios

What is the evidence that OMTs have been effective?

- One year after announcement, the positive effects of OMT – not only for banks but also households and firms – were visible in several key indicators:
  - Distortions in sovereign debt markets receded. Spreads on ten-year government bonds for Italy and Spain returned to levels observed in summer of 2011.
  - Bank and firm borrowing conditions relaxed. Corporate bond spreads in stressed countries declined substantially, affording creditworthy companies better access to market funding.
  - Banks were able to re-access market for funding and raising capital. Divergence in funding costs across countries declined. Deposits outflows in stressed countries reversed.
- OMT removed **redenomination risk** from market, without spending a single euro, benefitting not only banks but also firms and households

Impact of OMT on sovereign bond yields (2-day changes, average yield, bps)

Announcement date	Italy	Spain
Jul 26, 2012	-72	-89
Aug 2, 2012	-23	-41
Sep 6, 2012	-31	-54
Total	-126	-184

Source: Krishnamurthy, Nagel, Vissing-Jorgenson (2014)

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Impact of OMT on stock market values (2-day changes, pct)

Announcement date	Italy	Spain	Portugal	EMU
Jul 26, 2012	8.85	10.75	5.00	5.81
Aug 2, 2012	1.80	0.61	0.00	1.35
Sep 6, 2012	6.55	5.55	5.30	3.75
Total	17.20	16.91	10.30	10.91

Source: Krishnamurthy, Nagel, Vissing-Jorgenson (2014)

Other evidence of OMT impact on bank lending and economic activity

- Ferrando, Popov and Udell (2015): Using survey data, find that following OMT announcement, fewer firms report that they are credit rationed and discouraged from applying for loans. In addition, firms reduced their use of debt securities, trade credit, and government subsidized loans.

- Krishnamurthy, Nagel, and Vissing-Jorgensen (2014): Following OMT, default risk, market segmentation, and redenomination risk all decreased in the periphery. OMT also had positive macroeconomic impact as evidenced by boosting stock market values in periphery and core economies.

- Altavilla, Giannone, Lenza (2014): OMT led to significant decline in bond yields in Italy and Spain; scenario analysis points to marked increases in economic activity.

Conclusions

- Interesting paper
- Identification can be further improved
- Alternative channels through which decreases in bond yields influence economic activity should be explored, and may possibly alter conclusions
- Next paper: Analyze impact of APP programs such as the ECB's PSPP (public sector purchase program); OMT was never triggered

Additional slides

Expanded Asset Purchase Programme (APP) on 22 Jan 2015

"[…] decided to launch an expanded asset purchase programme, encompassing the existing purchase programmes for asset-backed securities and covered bonds."

→ Continuity with past policy initiatives,
APP = PSPP (Public Sector Purchase Programme, new) + CBPP3 + ABSPP

"Under this expanded programme, the combined monthly purchases of public and private sector securities will amount to €60 billion."

→ Clear communication on expected volumes (combined with monthly flow formulation), flexibility on composition

"They are intended to be carried out until end-September 2016 and will in any case be conducted until we see a sustained adjustment in the path of inflation which is consistent with our aim of achieving inflation rates below, but close to, 2% over the medium term."

→ Intimate link to price stability objective

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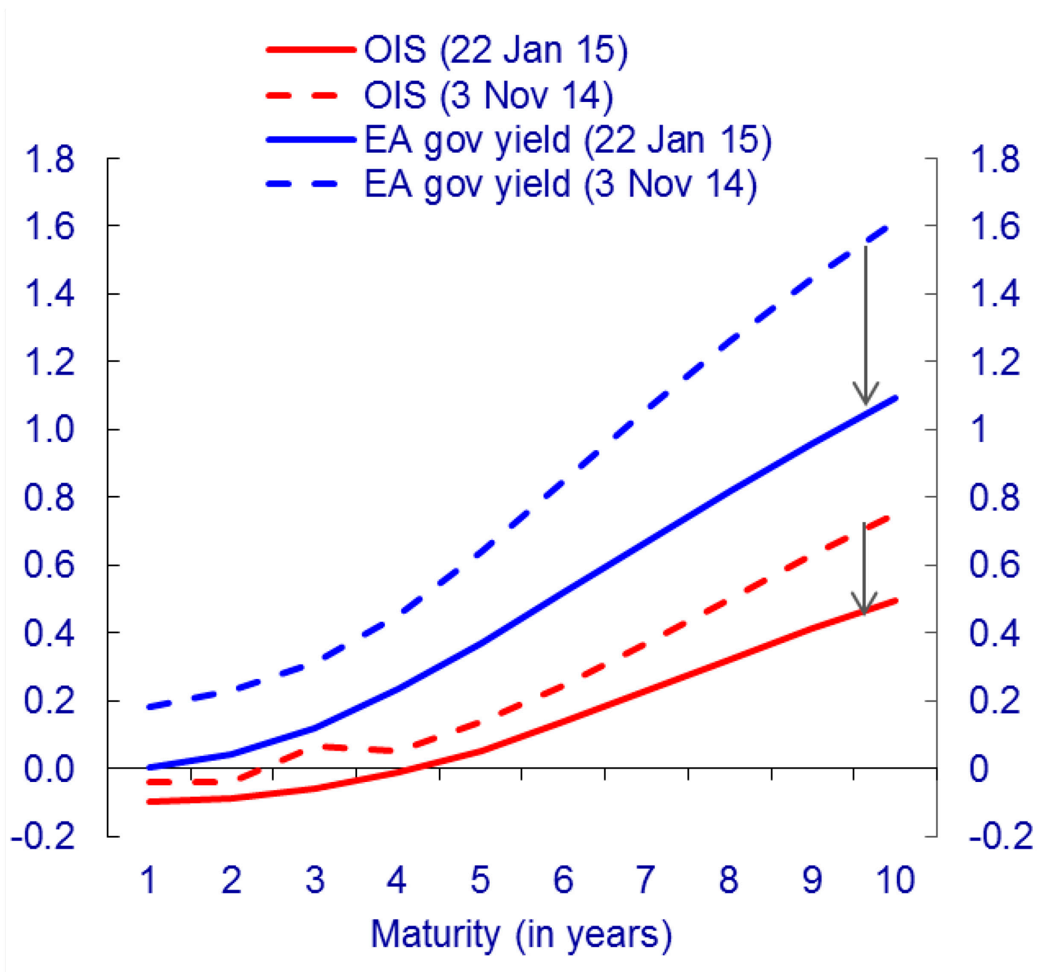
OMT and APP compared

- OMT was never triggered—akin to insurance
- PSPP (public sector purchases program)—part of APP targets public sector bonds
- Thus far no ECB purchases of Greek bonds under APP program (collateral waiver; not investment grade; already reached 33% issuer limit due to SMP holdings)

PSPP impact on sovereign yield curve across euro area

Sovereign yield curve (GDP-weighted) and OIS curve
(percentages per annum)



Sources: Reuters and ECB calculations.
Notes: The GDP-weighted curve is interpolated using the Nelson-Siegel model.

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Banks intend to use liquidity from expanded APP to provide loans

Purposes for which euro area banks intend to use the additional liquidity from the expanded APP
(average percentage of respondents per category)

Source: April 2015, Bank Lending Survey.
Notes: The percentages are defined as the sum of the percentages for "has contributed (will contribute) considerably to this purpose" and "has contributed (will contribute) somewhat to this purpose". The results shown are calculated as a percentage of the number of banks which did not reply "not applicable".

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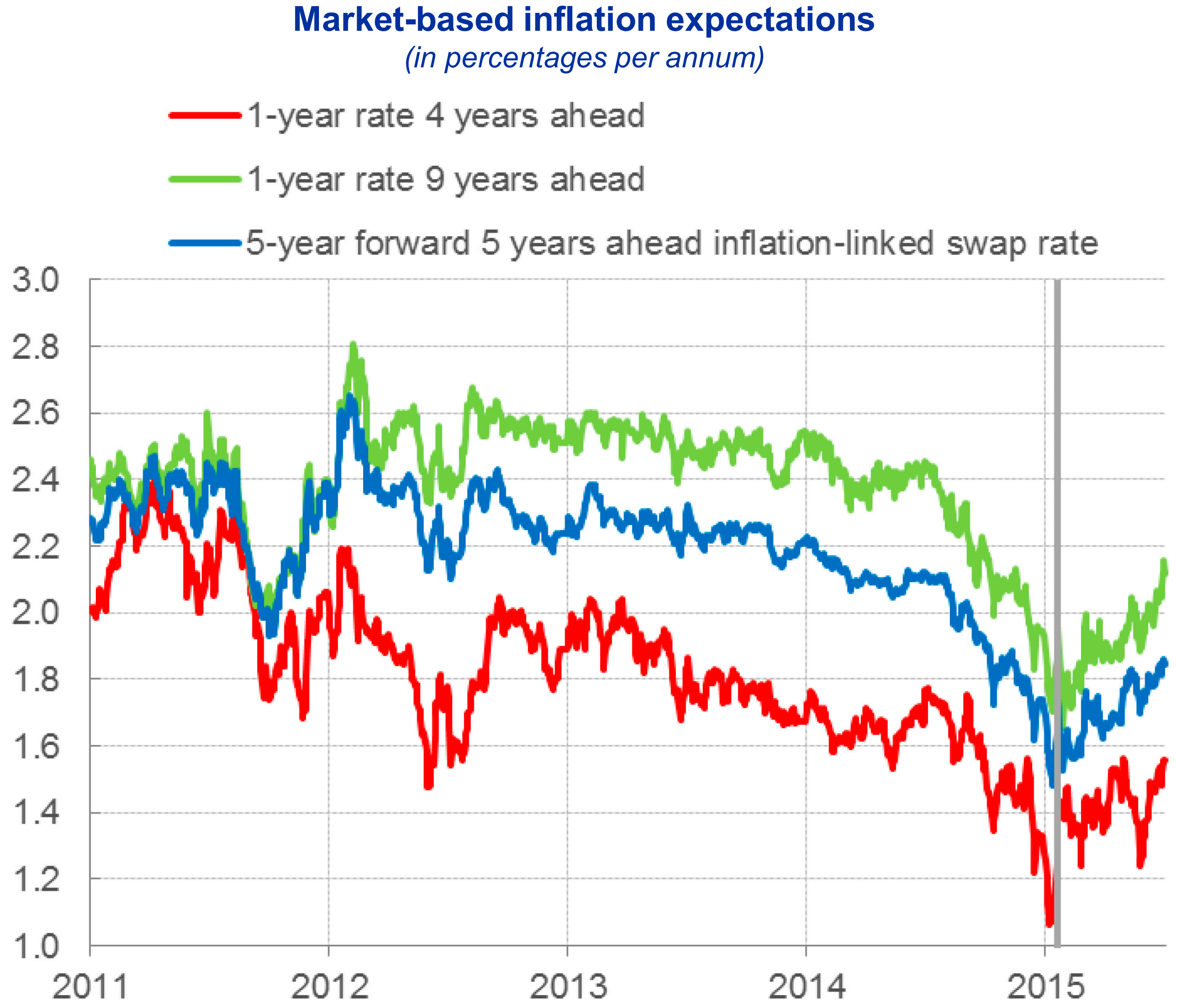
Downward trend of inflation expectations stopped and reverted



Source: Reuters and ECB calculations.
Note: Vertical line denotes 21 January 2015. Latest observation 3 July 2015.

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