Beggar-thy-neighbor? The international effects of ECB unconventional monetary policy measures

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[1]The views expressed here are solely those of the author and should not be taken to represent those of the Bank of England.

This paper

- Main questions
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- How do they do that?
  - Mixed frequency open economy VAR where key monthly macro variables are converted into weekly series

This paper

- **Methodological contribution** Solution to the frequency mismatch typically faced by macroeconomists when jointly modelling macro and financial variables
  - Exploit info embedded in high frequency financial data
  - Consider a short sample period (2008-2014)
  - More plausible timing assumptions than in lower frequency settings

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  - More plausible timing assumptions than in lower frequency settings

- **Discussion** Some questions and (hopefully useful) suggestions
  - Identification
  - Heterogeneity
  - Other (minor)

Identification

- Identification is achieved with (i) block exogeneity and (ii) timing assumption
  - (i) Foreign countries have no impact on EA
  - (ii) Cholesky with UMP^* ordered after (weekly) IP^* and π^*

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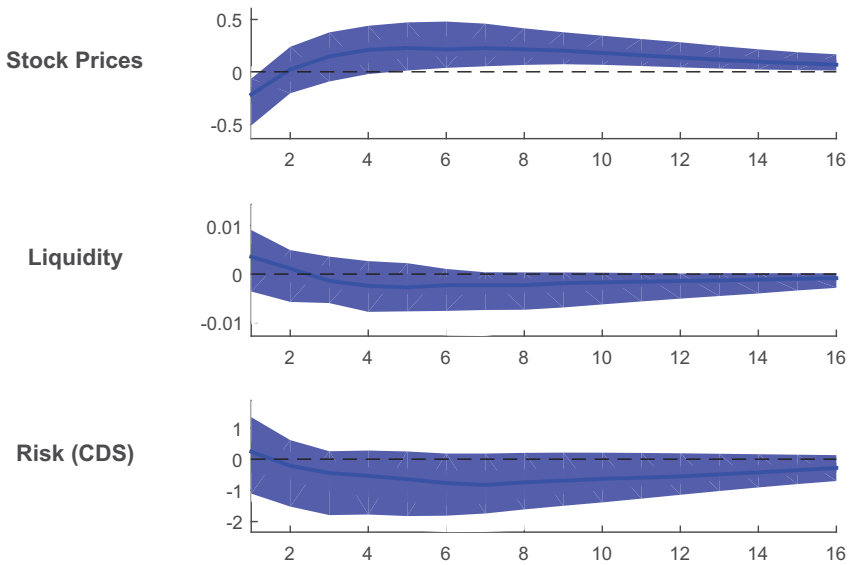
  - (i) Foreign countries have no impact on EA
  - (ii) Cholesky with UMP^* ordered after (weekly) IP^* and π^*
- Timing assumption more plausible at weekly frequency than at monthly, but are the results plausible?



- Stock prices significantly fall on impact
- **Question** Does this point to endogeneity?
- Consistent with UMP as a signal about the state of the economy

Identification (cont'd)

- Recent literature has emphasized the use of high frequency (intra-daily) data to identify MP shocks
- Rogers, Scotti, Wright (2014): change in government bond yields in a narrow intraday window around a set of UMP announcements

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	Fed		BOE		ECB
Intradaily					
Two-year Treasury	-0.11***	(0.01)	-0.01***	(0.00)	0.00
Five-year Treasury	-0.22***	(0.01)	-0.03***	(0.00)	0.00
Ten-year Treasury	-0.25		-0.03***	(0.00)	-0.01
30-year Treasury	-0.16***	(0.01)	-0.03***	(0.00)	0.00
UK Gilt	-0.12***	(0.01)	-0.25		0.02***
Italian 10 Year	-0.04***	(0.01)	-0.02***	(0.01)	-0.20***
German 10 Year	-0.09***	(0.01)	-0.05***	(0.00)	0.05***
Ten-year JGB	-0.05***	(0.01)	-0.01	(0.01)	0.00
GBP	0.66***	(0.07)	-0.82***	(0.12)	0.14***
EUR	0.86***	(0.11)	-0.02	(0.07)	0.28***
JPY	1.21***	(0.09)	0.10**	(0.05)	0.09**
Stock Returns	0.86***	(0.15)	0.23*	(0.12)	0.92***

- Stock prices are found to increase after an expansionary UMP shock
- **Question** How to reconcile this evidence with the one reported in the paper?

Identification (cont'd)

- Authors provide robustness exercises to a number of alternative identifications schemes....
  - Announcements dummy
  - Zero and sign restrictions
  - Heterosckedasticity (Rigobon)

- ... but do not make a convincing case for none of those

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- **Suggestion** Proxy SVAR using high-frequency intra-daily instruments
  - Easy to implement
  - Partly addresses endogeneity problem

Heterogeneous spillovers of UMP shocks

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- Pointwise posterior median IRFs show a high degree of heterogeneity
- Authors conjecture this may be due to country-specific characteristics
  1. **Share of foreign banks** The larger the share of foreign banks, the smaller the real spillover of UMP
  2. **Level of financial development** The higher credit-to-GPD, the smaller the real spillover of UMP

Exploring the heterogeneity

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- Some issues
  - Country characteristics are correlated. How to partial out the factor that really matters?
  - Other (omitted) factors may matter
  - How reliable is mean group estimator when N is low? (Only 9 countries divided in two groups!)

Exploring the heterogeneity (cont'd)

- **Suggestion** Based on related work in progress (Cesa-Bianchi, Ferrero, Rebucci, 2016)

  1. Alternative method
     - Take a statistic of each country's IRF (eg, max, impact, etc)
     - Stack them in a vector
     - Regress them on a set of country-specific characteristics

  2. Consider more factors (leverage, share of foreign currency liabilities, exch rate flexibility, capital controls, etc)

  3. Expand the list of countries (non-euro area + "small" euro area countries)

Other minor comments

- Spillovers are reported as pointwise posterior median responses in deviation from EA
  - Good way of showing size of the response relative to EA but may mask some features of the responses
- Mean group estimates
  - Are the credible sets computed a la Pesaran, Pesaran, Smith (1996)?
  - Does low N matter?
- How reliable are the IRFs for the conventional monetary policy shock?
  - Policy rate over the period displays very little variation
- Robusteness: ordering of the variables in R1 and R2 should not matter
- Confidence bands of the country-specific spillovers are not reported

Other minor comments: specification of the VAR model

- Open economy VAR for low and high frequency variables $y_t = [z_t, x_t]$ with block exogeneity assumption

$$A_{0,11} y_{1t} = A_{1,11}(L) y_{1,t-1} + B_1 \omega_t + \epsilon_{1t}$$
$$A_{0,21} y_{1t} + A_{0,22} y_{2t} = A_{1,21}(L) y_{1,t-1} + A_{1,22} y_{2t} + B_2 \omega_t + \epsilon_{2t}$$

- Exogenous
  - $\omega_t = [1, \omega_t^*]$ where $\omega^* = [News_t, i_{t-1}, i_{t-1}^*, PC_t]$

- **Question** Notation is a bit confusing (does i_{t-1}^* enter the EA model)

- **Question** What is the intuition for including the announcement dummy ($News_t$) as exogenous variable?

Summing up

- Nice contribution
- General methodology – can be applied to a variety questions
- Some work to do on identification and heterogeneity
- Potentially very important implications for policy

- Cesa-Bianchi, A., & Ferrero, A., & Rebucci, A., 2016. "Global Liquidity, Leverage, House Prices and Exchange Rates," unpublished manuscript
- Pesaran, M. H., & Smith, R., & Im K., 1996. "Dynamic Linear Models for Heterogenous Panels," in The Econometrics of Panel Data", ed. by L. Mtys, and P. Sevestre, chap. 8, pp. 145{195. Kluwer Academic Publishers, Dordrecht, The Netherlands.
- Rogers, J.H. & Scotti, C. & Wright, J.H., 2014. "Evaluating Asset-Market Effects of Unconventional Monetary Policy: A Cross-Country Comparison," International Finance Discussion Papers 1101, Board of Governors of the Federal Reserve System (U.S.).