

Marco Bernardini and Antonio Conti: Announcement and Implementation Effects of Central Bank Asset Purchases

Discussion by Gabor Pinter (BoE)

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The views expressed are those of the author and not necessarily those of the Bank of England or its committees.

Introduction

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 - ① unifying empirical (VAR) framework on the announcement and implementation effects of QE
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 - ① unifying empirical (VAR) framework on the announcement and implementation effects of QE
 - ② quantifying the roles of QE surprises as well as the endogenous QE response to other shocks
- My comments / first reactions:
 - ① simple, yet important paper with great implications for policy
 - ② implementation effects are non-trivial – important result!

What the paper does

The VAR Model

- VAR(6) model at daily frequency (2014-2021):

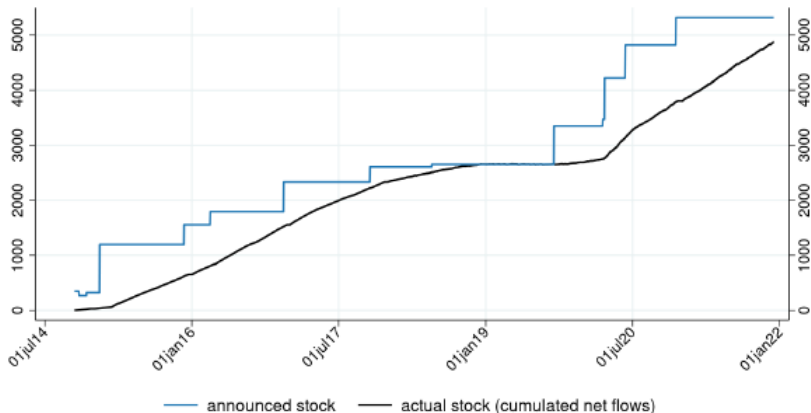
$$\begin{bmatrix} \text{Announcement}_t \\ \text{ImpFlows}_t \\ \text{Yield Slope}_t \\ \text{Yield Spread}_t \\ \text{InflationExp}_t \\ \text{StockPrices}_t \end{bmatrix} = \Gamma \times \begin{bmatrix} \text{Announcement}_{t-1} \\ \text{ImpFlows}_{t-1} \\ \text{Yield Slope}_{t-1} \\ \text{Yield Spread}_{t-1} \\ \text{InflationExp}_{t-1} \\ \text{StockPrices}_{t-1} \end{bmatrix} + \dots + E_t \quad (0.1)$$

- with the reduced-form residuals E_t are linked to the structural shocks U_t via $E_t = BU_t$
- the columns of B are identified by a mix of (narrative) sign restrictions and external IV strategies

What the paper does

External Instrument for Announcement Shocks

Figure 1 – Announced stock of purchases
(€ bln)

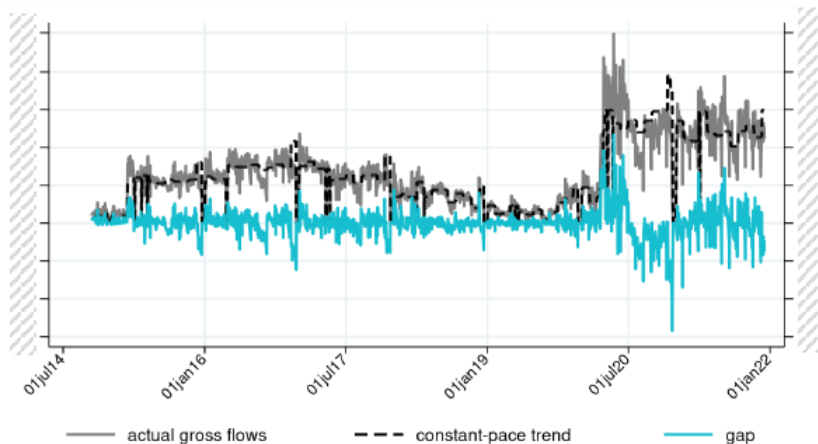


What the paper does

External Instrument for Implementation Shocks

Figure 2 – Implemented purchase flows

(€ bln)



What do we learn from this paper?

- implementation shocks could be sizeable → they could be as important as announcement shocks (e.g. March 2020)
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 - → QE policies cannot be assessed on the basis of purchases announcements alone!
- announcement shocks have much more persistent effects than implementation shocks
- both implementation flows and announcements have a sizeable endogenous component (driven by macro and financial shocks, especially in longer-horizons)

Question/Comment I: On the Empirical Design

- How strong are your instruments?
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- Variables in the VAR
 - term premium vs expectations? (easy to add a decomposition, e.g. ACM (2013))
 - what are real economy effects? (perhaps try industry portfolio returns)
 - inflation expectations measured by inflation swap rates? (Market may be highly segmented)

Question/Comment II: Are Asset Purchases Largely Endogenous?



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- Non-AP shocks explain around “60% over 5 years”
 - With 14 announcements and 7 years of time-series this may be difficult to estimate

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- How do central bank desks actually trade?
 - could you use the ECB's transaction-level data on government bond markets?
 - how do primary dealers and clients trade around the implementation shock? Maybe the price effects really depend on who the central bank buys from (e.g Koijen-Yogo, 2019; Eren-Schrimpf-Xia, 2023)

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- How do the shocks propagate across the yield curve? (e.g. trace out the effects across different maturities (Nakamura-Steinsson, 2018))
- With trade-level data, you could exploit cross-bond variation
 - if bonds (of similar maturities) are differentially affected by the implementation shocks, how do their prices react?

Conclusion

- Very important paper at the intersection of monetary economics and market operations!