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Discussion of 'Does a Big Bazooka Matter? CB Balance-Sheet Policies and Exchange Rates'

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What is this paper about?

- **This paper covers a key topic: The transmission of CB balance sheet policies to FX rate**
 - The exchange rate is one of the main transmission mechanisms of monetary policy to the real economy, especially at the ZLB.
- **The estimated equation is derived from theory**
 - Estimated equation derived from a generalised UIP theory. Strong tie to theory helps to interpret estimates.
- **Estimated with state-of-the-art identification approach**
 - Estimate impact of relative UMP shocks on EURUSD FX rate.
 - Recognize endogeneity of UMP shocks (CB Balance sheet growth).
 - Instrument relative balance sheet growth with UMP announcement.

Results and my comments

- **Impact on the FX rate**

- 1% rise in relative BS growth leads to 1% EURUSD depreciation.

- **Transmission channels**

- No signalling channel via the interest rate.
- Risk premium channel more relevant.
 - Interesting and not very explored channel.

- **My comments will focus on**

- Is UIP the right **theory**?
- **Measurement** of UMP.
- How do results compare to **previous work** on FX rate?
- Suggest possible **improvements to empirical specification**.

Is UIP the right theory?

- **UIP relies on interest rate moves to affect the FX rate**
- **Three theory channels for QE impact on interest rates**
 - Eggertson and Woodford (2003) suggest that QE (UMP) cannot affect the yield curve, if capital markets are frictionless.
 - Need frictions such as preferred habitat investors (Vayanos & Villa, 2011) or liquidity frictions (Harrison, 2012) to affect yield curve via **portfolio balance channel**.
 - **Signalling channel** (Bernanke & Sacks, 2003) can affect short rates.
 - **Risk-premium channel**.
- Why not consider **portfolio balance channel** in theory as well?

Is UIP the right theory? (II)

- **UIP not the only FX Rate theory**

- **The Monetary model (Dornbusch, 1976)**

$$s_t = (m_t - m_t^*) - \varphi(y_t - y_t^*)$$

- Where $(m_t - m_t^*)$ and $(y_t - y_t^*)$ is relative log money supply and output
- **In first differences**

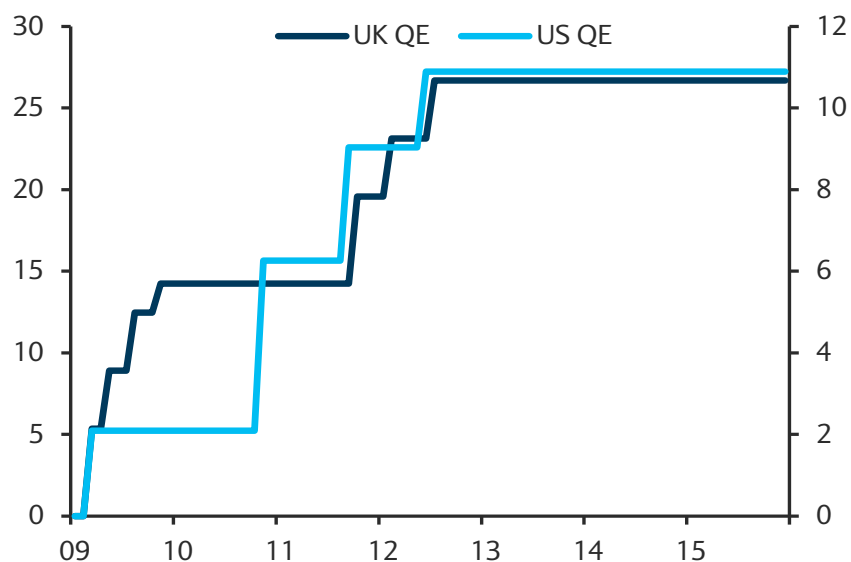
$$\Delta s_t = \Delta(m_t - m_t^*) - \varphi \Delta(y_t - y_t^*)$$

- **Looks very similar to what the authors estimate**
- Consistent with their empirical estimate, monetary model implies a 1% FX depreciation in response 1% rise in relative CB BS growth.
- **Are the authors testing UIP or the monetary model?**
 - Discussion of different FX theories would be helpful.

Measurement of UMP (Balance sheet the right measure?)

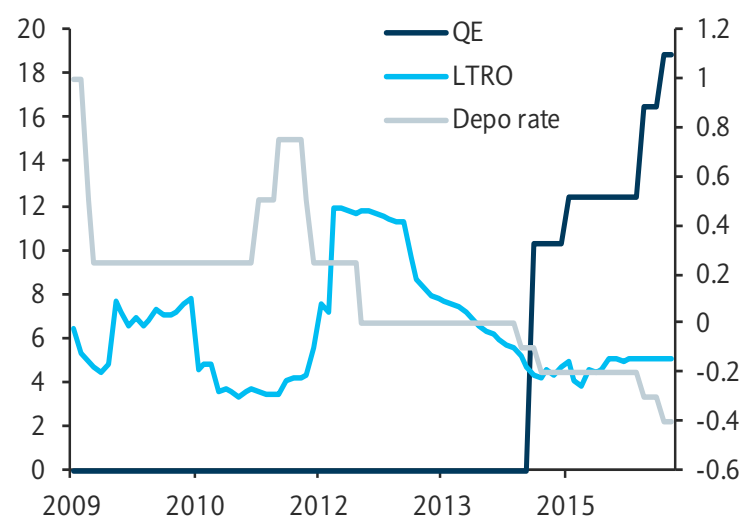
- **Following the onset of ZLB, US and UK relied on QE as their main balance sheet policy.**
- **The ECB relied on LTRO, depo rates and QE.**
- ➔ Mix of policies may not be comparable across countries.
- ➔ Difficult to disentangle LTRO and QE from depo rate moves.

UK and US mostly relied on QE...



Source: Barclays Equity Gilt Study 2017
Note: Asset purchase announcements as share 2009Q1 GDP

...while ECB rate and balance sheet policy coincided

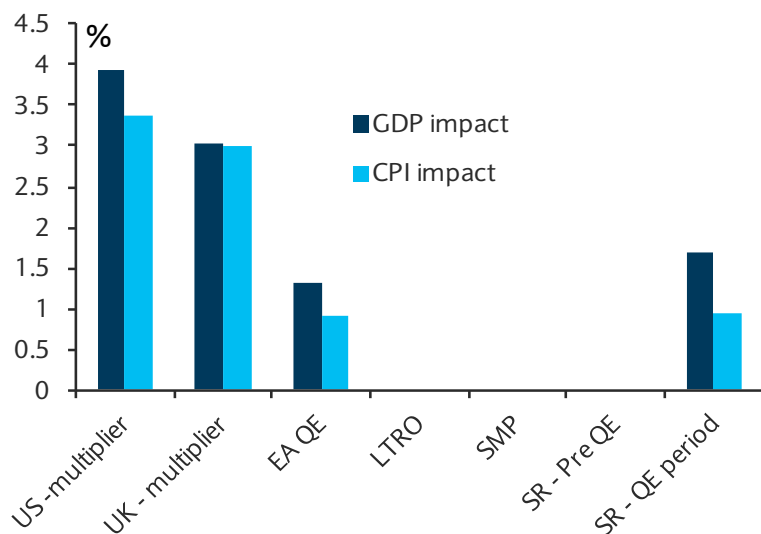


Source: Barclays Equity Gilt Study 2017
Note: Asset purchase announcements as share 2009Q1 GDP (LHS), Depo rate (RHS)

Comparison to previous work

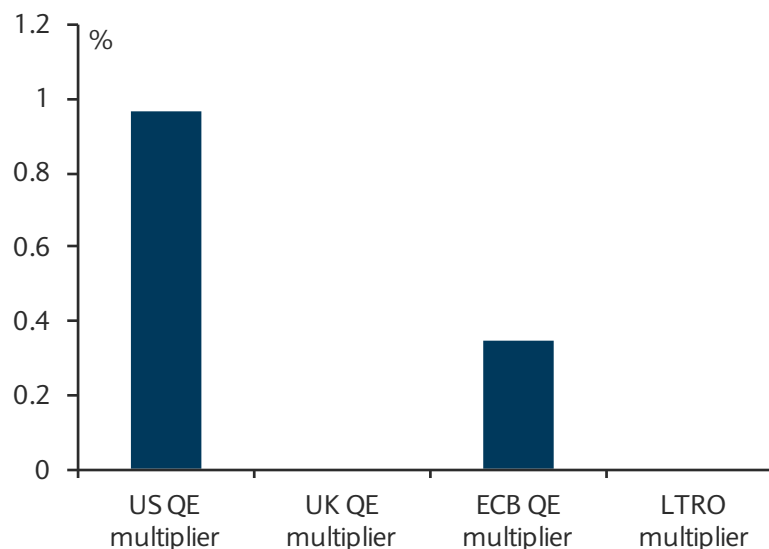
- **How does this compare to previous work?**
 - With Weale (2014) and Garcia-Pascual (2016), I estimate impact of UK/US and ECB QE/LTRO using a BVAR with four different agnostic identification schemes
 - Similar impact on EA GDP and CPI of ECB QE as in Gambetti and Musso (2017)
 - US QE FX Rate impact similar to authors, LTRO not significant, ECB QE much smaller
- **Could it be that the effect is mostly driven by FED QE, rather than ECB QE?**

Different policies have different Macro...



Source: Barclays Equity Gilt Study 2017
 Note: Total impact of QE1 across countries

... and FX rate impact



Source: Weale and Wieladek (2014), Wieladek and Garcia-Pascual (2016)
 Note: FX rate response to 1% rise in balance sheet as share of 2009Q1 GDP

Suggested improvements to empirical work

- **Test impact across different ECB policies**
 - It is not clear that ECB QE and LTRO can be pooled. They were different policies and could have different FX impact.
- **They use a dummy variable instrument**
 - Their instrument assumes that all announcements were of the same size. This is not true. An instrument that takes size into account could be perhaps more powerful.
- **Need more robustness to understand if the impact comes from the Fed or the ECB**

Conclusion

- **Very topical and important paper**
 - The transmission of UMP to FX is not well understood.
- **Carefully derive empirical equation from UIP theory**
 - Little theory about the impact of UMP on the FX rate. The authors have gone above and beyond to derive their empirical approach from UIP theory.
- **That said...**
 - May want to look at other theories than UIP.
 - Need to be careful about pooling different policies (LTRO + QE).
 - Exploit size of policy announcements in the instrument.
 - Need more robustness to understand where the impact comes from.

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