Discussion of Bahal, Foulis and Pinter "*Monetary Policy and the Firm: Some Empirical Evidence*"

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**Views expressed in this discussion are the discussants own views and are not necessarily the views of the ECB or the Eurosystem*

A very nice empirical paper!

➢ An important research question: What can firm level data tell us about the effects of monetary policy?

➢ Exploits a rich and relatively unexplored micro data set using high frequency identification of monetary policy shocks

➢ A lot of very carefully done empirical analysis with plenty of robustness checks

➢ Interesting results providing some inspiration for future research, both theoretical and empirical

Plan of the discussion

➢ Summary of my main takeaways

➢ Some comments (and more minor quibbles)
   ➢ Microdata set
   ➢ Empirical Strategy – panel regressions

➢ Future directions

Quick summary

➢ Paper studies empirically the transmission of monetary policy shocks using firm level data

Why is this interesting?

➢ Provides insights into how monetary policy may impact **different** types of firms **differently** and/or be re-distributive across firms

➢ Offers insights into channels of monetary transmission that we might not see with macro level analysis, e.g. the impact of monetary policy on new entrants which may be central to employment creation

➢ Provides a basis to compare bottom up with more aggregate analysis of monetary transmission: Robustness & empirical micro foundations

Some key findings

➢ Very persistent *negative* effects of a contractionary monetary policy shocks e.g. the peak effect occurs after 7 years (Employment -5%, Assets: -16% from 100bp)

➢ Impact of monetary policy shock depends on the age and size of individual firms; Old firms respond the least; Large firms respond most.

➢ Both rates of firm **entry** and the **size** of entering firms "gradually" responds *positively* (with a very long delay!) to a contractionary shock

Some key findings

➤ Authors argue their results are in line with a "cleansing" role of the policy shock over the business cycle; negative impact on incumbents makes space for new entrants to enter the market and create employment

➤ Asymmetric effect on incumbents and eventual new entrants may help reconcile their results with the more modest and transitory effects of monetary policy estimated with aggregate data

➤ **Is this really so?** Both new and old firms included in panel regressions so aggregate effects from firm level analysis remain puzzlingly large . . . .

# Highly skewed distribution of labour productivity across firms; also within sectors

The distribution of firm productivity in manufacturing in the four largest euro area countries

(labour productivity kernels, normalised to country GDP per capita, in EUR ten thousands; manufacturing sector; average over the years 2006-12)
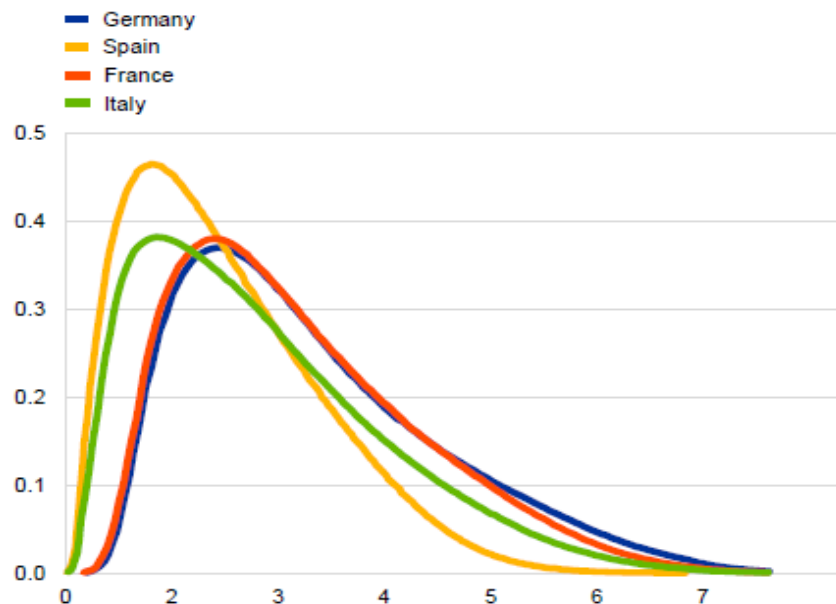
Share of manufacturing exports sold by top exporting firms, broken down by sector

(average percentage shares in the years 2001-13; unweighted averages across countries)
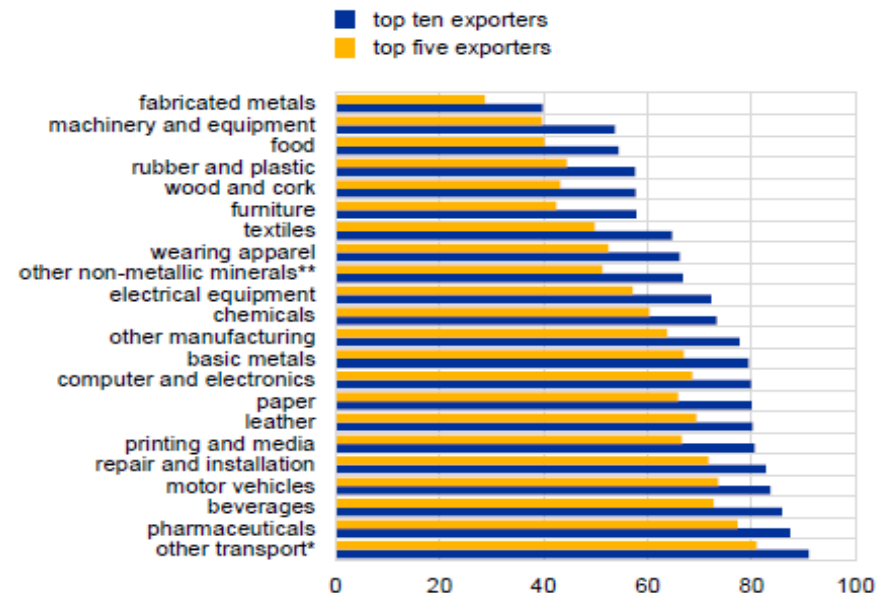
Dataset: Comments

- Based on company filing of accounts (source Bureau van Dijk)

- Highly representative of the UK corporate universe

- 3.75 million firms for total assets ; less representative for employment(approx. 100k firms) and biased toward large firms

- Difference across firms in filing month offers a source of variation for estimating the effects of monetary policy

➤ **Administrative data; Filing date V. Reporting period; Year end figures or yearly averages?**

➤ **Book or market values? Deflators**

➤ **Total Assets bundles together a lot. Extract more a measure of investment and profitability from the accounts?**

➤ **Subsidiaries and possible double counting? Also restructuring or M&A: Interpretation: Firms birth death or REINCARNATION?**

Empirical strategy: Comments

Step 1: Construct an external instrument for monetary policy shocks following a previous study by Miranda-Agrippino (2015)

➢ **Some discussion of the time profile of the identified shocks;**
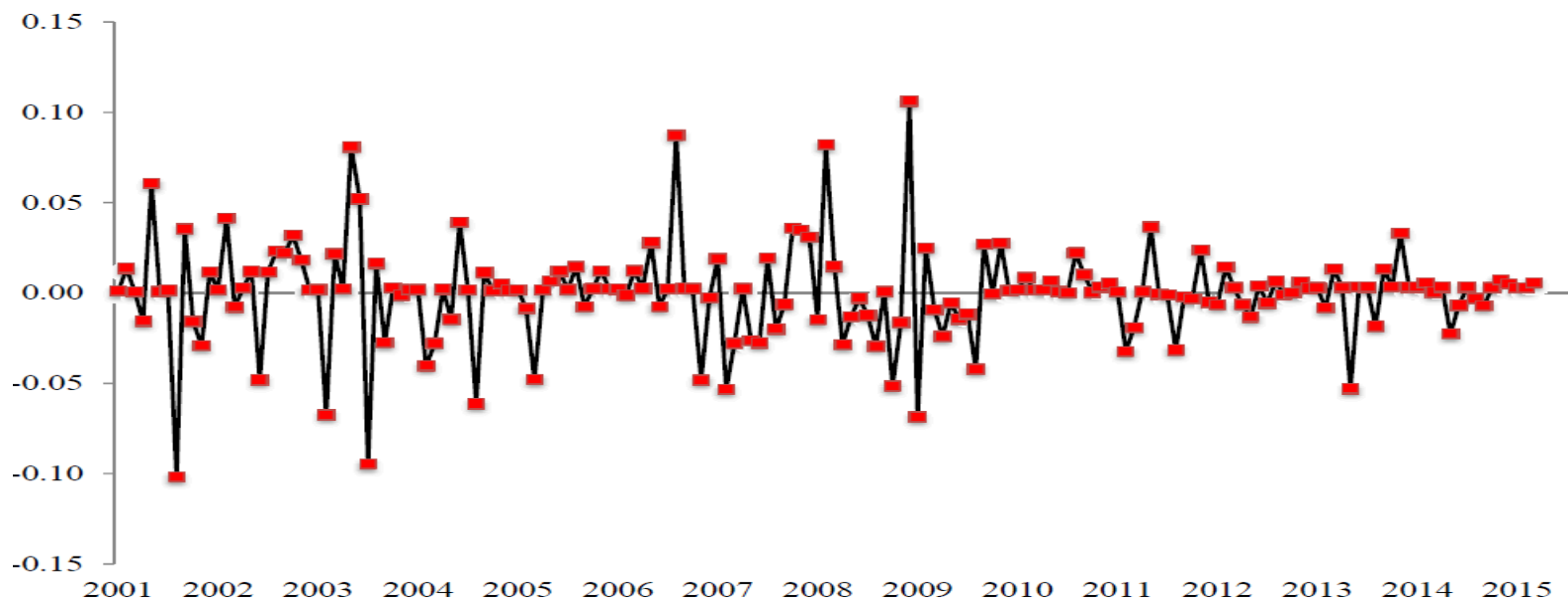
➢ **Did the variance of the monetary policy shock change after the great recession? Monetary policy becoming more predictable?**

➢ **What about lower bound / unconventional monetary policy?**

Empirical strategy: Comments

Step 2: Estimate a proxy SVAR to extract the identified monetary policy shocks

➢ **Closed economy SVAR; UK a very OPEN economy - possible source of misspecification, e.g. exchange rate?**

➢ **Forbes, Hjortsoe and Nenova (2017) FX passthrough differs depending on the nature of the shock; higher if induced by monetary policy**

➢ **Similar conclusions in Ciccarelli and Osbat (2017) for the euro area); Dedola et al (2017) study the transmission of NSM via the exchange rate channel**

Empirical strategy: Comments

Step 3: Run panel regressions using a large microdata set of firms; estimate impulse responses by local projection (cf. Jorda, 2005, Ramey, 2016); exploiting cross-sectional variation in filing dates to help identify the impact of the shock

➤ **Baseline specification implies the response to a monetary policy shock the same for all firms**

➤ **Residuals from SVAR used to proxy other aggregate shocks (e.g. fiscal, supply, technology, financial , global shocks)**

➤ **Non-linear version more interesting as it allows the response to depend on firm specific characteristics;**

➤ **Time fixed effects included in non linear specification and errors clustered around filing dates to help with inference but other aggregate shocks may still be missing here?**

Future Directions: Need to identify which mechanisms may be behind the relatively large effects that are estimated

- Productivity differentials / Role of mon pol in reallocation between low and high productivity firms (cf. Buera and Nicolini, 2017)

- Financial frictions (Altavilla *et al.* (2017) find that monetary policy shocks have a larger effect on distressed banks)

- Labour market frictions

- Openness/exposure to international frictions

Final remarks

- A nice empirical paper !

- Rich and carefully crafted set of empirical findings

- New puzzles which theoretical models will have to explain