Discussion: Investment, financial frictions and the dynamic effects of monetary policy

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The research question

- I enjoyed reading this paper!
- This paper asks an import macro-economic question:
  Q1: Does an exogenous change in the interest rate affect investment?
  It uses a nice mix of macro and micro data to dig deeper
  Q2: What group of firms adjust their investment the most in response to interest rate changes?
  Q3: Are financial frictions behind a differential response?
- Authors have to overcome one of the biggest challenges in macro-research: endogeneity of macro-variables
- investment and interest rates are both endogenous
How the paper solves the endogeneity problem

Step 1: Obtain exogenous movements in the interest rate
High frequency identification: Isolate surprise movements in Sterling futures
Gerko and Rey (2017) 10 minutes before and 20 minutes after CB announcement

Step 2: Use these as proxies for latent shocks in a SVAR to identify structural monetary policy shocks
Mertens and Ravn (2013)
Monthly VAR: 5 year yields, industrial production, employment rate, unemployment rate, retail price index, corporate spread, exchange rate

Step 3: Use the identified MP shocks as instruments for the 5 year yields in micro-investment regressions. (UK Worldscope data and US Compustat in a very recent update)

Step 4: Do sample splits: age, size, Tobin’s Q, leverage, growth, dividend status
Estimate local projections as in Jorda (2005)
**Facts and findings**

- Investment at aggregate and individual level reacts to monetary policy shocks.
- Who reacts? Investment: most sensitive are young who are small and do not pay dividends.
- Also their share price drops, debt issuance drops.
- Channels?
  - The mechanical effect of monetary policy shocks on interest payments (CF) doesn’t seem to matter.
  - Monetary policy shocks don’t seem to have an effect on sales (no aggregate demand channel).
- Authors conclude: liquidity constraints of young small firms.
**Overall assessment**

- Carefully done study: results seem reasonable
- Remarkable result: no aggregate demand channel.
- Are the young-small-no dividend paying firms numerous enough to explain the aggregate movement of investment?
Some questions on the data

- Why mixed type of cleaning investment ratio (drop ratio below 10 or drop 2 percent outliers)
- negative capital expenditures are dropped. What about firms shrinking during the crisis?
- What is the weight in total investment of the different sub-samples? (Missing summary statistics)
Some comments on the shocks

- What the paper calls "monetary policy shocks" are truly identified shocks (from the VAR) to the 5 year gild yield.
- Gerko and Rey HFI-shocks are the surprise movements in 3 month Sterling futures.
- Why are you not using the high frequency identified shocks directly as instruments in the micro-regressions?
- Identified shocks will be a function of which variables you put in the VAR.
- How should we think about the relationship between those two types of shocks?
Some comments on the macro effect of interest on investment

Does aggregate investment react to the interest rate?

Use SVAR-IS as instrument in investment regression in local projection

\[ y_{t+h} - y_{t-1} = \alpha^h + \beta^h R_t + \nu_{t+h} \quad (1) \]

- why \( \beta^h R_t \) and not \( \beta^h R_{t-1} \)
Some comments on the sample splits

- you split based age in three groups (below 15, 15-50, above 50)
- you split based on size, leverage in three groups
- you split based on firm growth and Tobin’s Q, dividend status in two groups

Then you do double splits:
- age (young-old) by dividends (no-yes)

Then you do triple splits:
- age (young-old) dividends (no-yes) size (small-large)
- age (young-old) dividends (no-yes) growth (fast-slow)
- age (young-old) dividends (no-yes) leverage (low-high)
- age (young-old) dividends (no-yes) Tobin’s Q (low-high)

There is considerable overlap between these groups (e.g. young-small)

How much overlap is there?

maybe alternative is to split sample based on mutually exclusive groups?
Conclusion

- Paper touches upon important topic
- Very nice job in combining macro shocks with micro data
- Strongest result: young not paying dividend firms reduce investment most.
- Is financial accelerator behind this result?
- Absence of demand channel is somewhat surprising
- Age is not in our macro-models. Should it be?