Discussion of
"How do banks' stock returns respond to monetary policy committee announcements in Turkey?"

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Outline

I. The paper's motivation, aim and results

II. Overall comment on focus

III. Specific comments and suggestions

IV. Smaller points

Context and summary

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Motivation and aim of the paper

- **Policy context**: MP transmission through the asset price channel has become increasingly important (notably due to ZLB). Understanding this transmission is essential for correct policy formulation and dosage.

- **Econometric challenge**: Identification of MP effect on asset prices: Endogeneity and omitted variables bias.

- **Previous literature:** Sparse for Turkish data. Duran et al (2010) use RS approach to identification of MP effects, notably on stock price indices. They find largest effect on stock prices of financial firms.

- **This paper has three aims:**
  1. Identification through heteroskedasticity of mp effect on stock prices.
  2. Investigation of whether transmission changed since new regime 2010.
  3. Application to individual financial firm stock prices in order to explain heterogeneity in MP response.

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What do we learn?

- Ad 1) Monetary policy transmission in Turkey is stronger through the stock price channel when correctly controlling for endogeneity bias (confirms results in Duran et al, EL 2012).

- Ad 2) Policy transmission through the asset price channel changed since May 2010 when the new framework for monetary policy was introduced, but we do not know how (or why).

- Ad 3) Transmission through stock prices works primarily through financial stock prices, and is related to the weight of bank's money market funding cost in the overall funding cost mix, and interest payments relative to interest receipts.

- **Very nice paper! Interesting result on the impact of MP on bank stock…**

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General remark: focus on the main contribution

- Aims 1 and 2: RS method and identification was done and published in Duran, EL 2012). The effect of a change in regime in 2010 would require a different methodological approach.

- The main contribution the question of **what is driving the stronger impact of monetary policy announcements in Turkey on financial firm stock prices relative to other stock prices**.
  - Is this feature of the data expected?
  - Is it also present in other countries (international literature)?
  - What is driving it and should we expect this feature to have changed over time?
  - What are the implications for monetary policy?

Specific comments and suggestions

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1. On the 1M government bond yield as a measure of policy

1. Δi_t in equation (1) denotes an unexpected change in monetary policy.

   - What information did a policy announcement contain prior to 2010?

   - What would an unexpected monetary policy change have constituted?

   - Conventional vs. unconventional period?

2. It is standard to proxy monetary policy surprises by changes in the interest rate on futures contracts.

   - E.g. RS use change in a futures contract on the 3M USD money market interest rate. Should react only to unexpected FFTR changes.

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1. On the 1M government bond yield as a measure of policy

This paper proxies a monetary policy change with a change in a 3M government bond yield. Why?

$$i_m = E_m(i_{pr}) + tp_m$$

where tp_m depends on liquidity, credit risk and uncertainty.

An unexpected policy change could have changed both tp and expected policy rate term. A policy announcement could have changed tp without changing the policy rate.

Are changes in tp neglible, unbiased? Make a case.

Why not use a future rate on a shorter-term money market interest rate, or a 1M TOIS? Data?

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2. The "pre-FOMC drift" – a potential bias?

- **Daily data:** information on when during day is data collected and when announcements are released is essential.

- **The RS approach splits sample into two**: policy dates (pd) and non policy dates (npd), which are the pre-announcement dates.

  - Using pre-announcement dates as non policy dates ensures that other conditions for identification are more likely to be met (because they are so close that "all else is almost equal").

- **A potential problem with using daily data and the RS method:** The pre-announcement drift. New paper on US data finds that stock prices tend to increase prior to FOMC announcement dates. (Lucca and Münch, FRBNY staff report, 2011)

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2. The "pre-FOMC drift" – a potential bias?

$$\Delta i_t = \beta \Delta s_t + \gamma z_t + \varepsilon_t$$

$$\Delta s_t = \alpha \Delta i_t + z_t + \eta_t$$

$$\sigma_\varepsilon^P > \sigma_\varepsilon^N$$

$$\sigma_z^P = \sigma_z^N$$

$$\sigma_\eta^P = \sigma_\eta^N$$

If there is a pre-announcement drift, then the stock price shock is:

$$\eta = \eta_n + \eta$$

Where η_n is a shock which only realizes on days prior to an announcement. The mean of η thus changes according to announcement state! Problem?

For identification restrictions to hold, we must have:
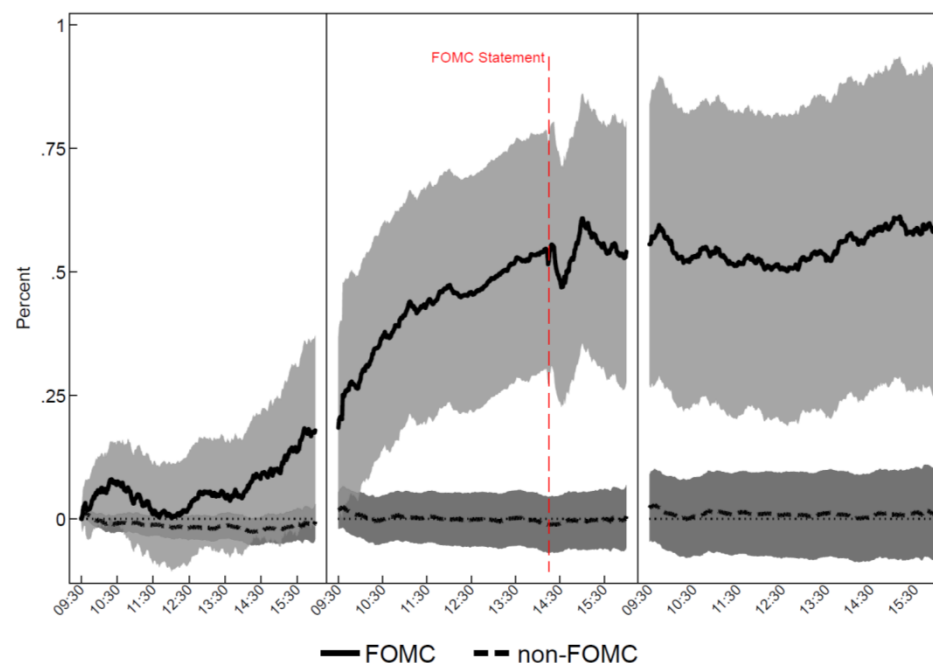
$$var(\eta) = \sigma^p_\eta ; \quad var(\eta_n) = 0$$

Should the pre-announcement drift be checked for Turkish data? Requires intra-day data.

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2. The "pre-FOMC drift" – a potential bias?

At what time during day was MPC announcement released?

Lucca and Münch (2011) find significant increase in US stock prices same day, but **before** announcement (see chart).

Might the stock price change on announcement date happen before the announcement? If so, it is not a policy shock.

Figure 1: Cumulative Returns on the S&P500 index

Check pre-announcement drift for Turkish data.

Solution: Consider intra-day data. Or use the day after announcement and before pre-announcement in daily data to be on safe side (but lose information)

12

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3. Why are financial firms more affected?

- The paper's hypothesis is that banks that fund themselves in money markets or have more interest expenses than receipts, are affected more by an interest rate hike. Evidence supports this.

More questions to address:

- If true, then banks with exceptionally low reliance on short-term funding, or with high interest receipts, could have lower, or possibly the reverse sign of, sensitivity to MP than the average stock price index, (e.g. higher policy rate would increase bank lending rates…). Their stock prices could rise with a monetary policy tightening. Can this be checked in sample?

- Did money market funding change over the sample period and did this affect bank stock price sensitivity to monetary policy?

- New monetary policy regime since 2010: Were banks' interest sensitivity affected by other parts of monetary policy, e.g. the new liquidity management.

Smaller comments and suggestions…

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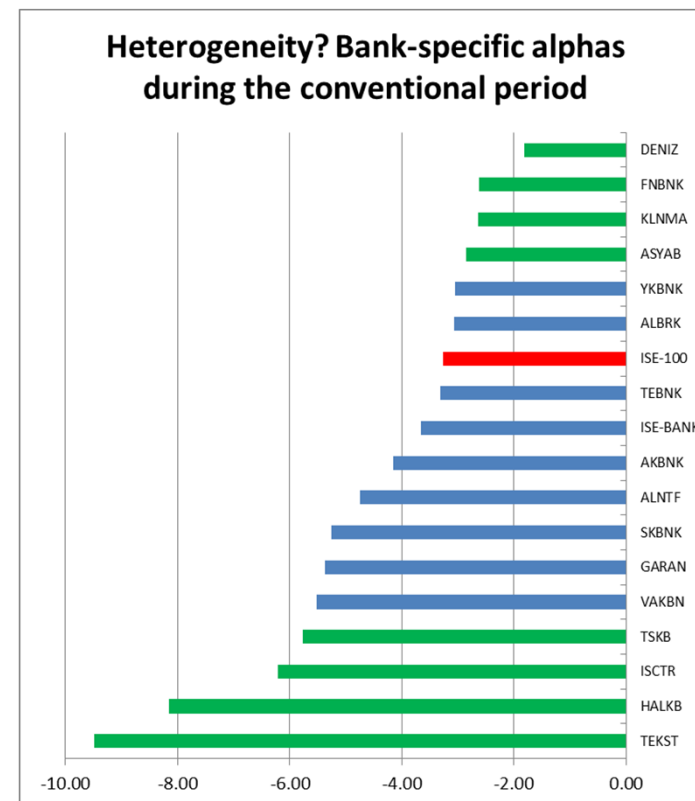BANCA NAZIUNALA SVIZRA
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4. The policy change in May 2010 was not exogenous

- Capital inflows and low global interest rates resulted in financial stability concerns in Turkey – hence the change in policy regime

- These same factors could have influenced the process of stock returns

  - Might global factors have gained in importance as capital inflows into the Turkish stock market were perhaps driven more by foreign push than by domestic pull factors?

  - Note that global factors matter for Turkish stock prices: Rosa (2009), using the same identification strategy, finds that Turkish stock prices react stronger than any other emerging market on US FOMC monetary policy announcements.

- Change in monetary policy framework in 2006? Relevant for impact? (sample starts 2005)

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5. Test of bank heterogeneity

- The paper describes heterogeneity as: 8 out of 16 banks have statistically significantly different reactions to a monetary policy surprise than the average.

- I am not sure what this means, it depends on the distribution. I would prefer to simply see the distribution visually, for example including confidence intervals.

- In contrast, is the correlation of bank specific parameter and interest cost significant?

Heterogeneity? Bank-specific alphas during the conventional period

16

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6. On the drafting regarding the monetary policy framework

- If the change in the monetary policy framework in May 2010 is to play a central role in the paper, then more information would be useful. For example, answers to the following:

  - How did the old framework work, what was the policy targets, tools and communication schedule?

  - Why was it no longer sufficient in 2010?

  - How were the new tools and targets thought to solve the problems that the old framework could not solve?

  - Could the problems themselves have affected asset prices (the endogeneity point of the previous slide).

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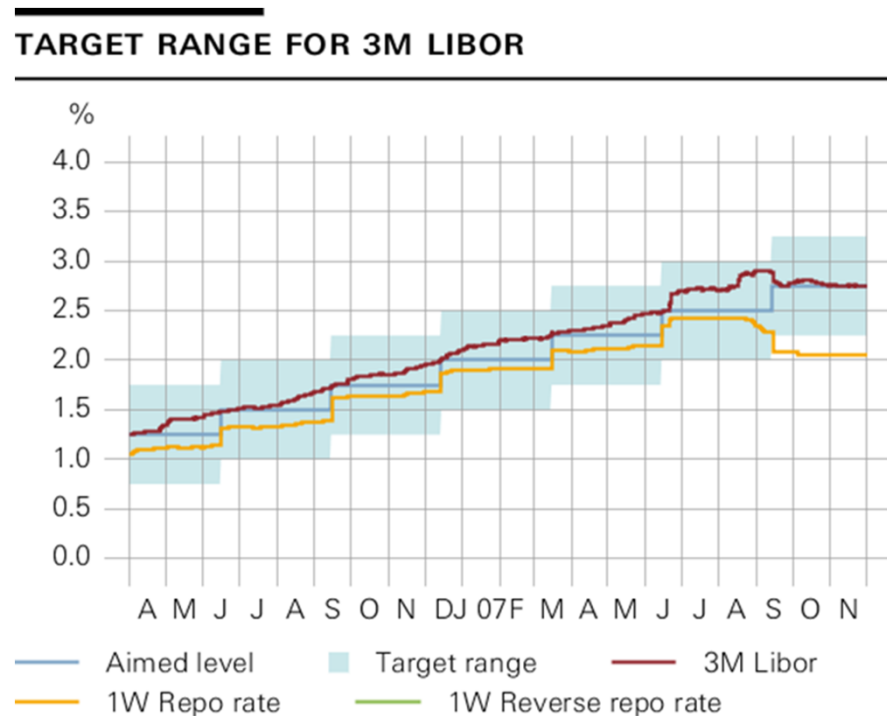BANCA NAZIUNALA SVIZRA
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7. Did other news explain the results?

- It would be nice with a discussion of which other types of regular news releases could affect stock prices systematically, and a check of whether these news releases systematically coincided with MP announcements. If other news releases perfectly correlated with MP announcements, they would not figure in the non-MP sample and hence not be controlled for. E.g.:

  - Did the MP announcement systematically coincide with ECB or Fed announcements?

  - Did news of employment, growth or inflation systematically coincide with MP announcement dates?

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Swiss 3M Libor rate and policy rate in 2006-2007. Example of policy expectations driving a 3M rate…

TARGET RANGE FOR 3M LIBOR

Sources: Reuters, SNB