

DISCUSSION OF “INTERNATIONAL SPILLOVERS AND
LOCAL CREDIT CYCLES”
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Global Research Forum on International Macroeconomics and Finance

The views expressed in this presentation are our own and do not necessarily reflect those of the Federal Reserve Bank of New York or the Board of Governors of the Federal Reserve System

THE CONTRIBUTION

- 1 Quantify the aggregate impact of Global Financial Cycle (GFC) on domestic credit growth in Turkey over 2003-2013 period
 - ▶ Capital flows induced by GFC is proxied by movements in VIX
- 2 Identification of channels through which the GFC is transmitted to the local credit conditions
 - ▶ “Interest rate channel” – time varying deviations from uncovered interest rate parity condition (currency risk premium)
 - ▶ “Exchange rate and collateral channel” – leveraged and mismatched firms

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 - ▶ “Interest rate channel” – time varying deviations from uncovered interest rate parity condition (currency risk premium)
 - ▶ “Exchange rate and collateral channel” – leveraged and mismatched firms

→ Use of matched firm-bank-loan level data on the universe of bank loans to nonfinancial firms in Turkey!

MAIN RESULTS

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 - ▶ Main mechanism through which GFC are transmitted to local credit conditions in Turkey, **especially during the boom phase of the GFC**

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 - ▶ Main mechanism through which GFC are transmitted to local credit conditions in Turkey, **especially during the boom phase of the GFC**
- 4 “Exchange rate and collateral channel” largely irrelevant

OUTLINE FOR TODAY

1 MY DISCUSSION

- International Spillovers in a medium-scale New Keynesial DSGE model
- Thoughts on the “exchange rate and collateral channel”
- Monetary and macroprudential policy in Turkey

2 CONCLUSION

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INTERNATIONAL SPILLOVERS IN A DSGE MODEL

- Canonical open economy NK-DSGE augmented with financial frictions and currency mismatch in borrowers' balance sheets
- Key channel: *Time varying deviations from UIP, consistent with evidence*
 - ▶ Gopinath and Stein (2017) and Akinci and Queralto (2018)

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- ▶ $\mu_t^* \neq 0$ and related to **Domestic Balance Sheet Risks**

INTERNATIONAL SPILLOVERS IN A DSGE MODEL

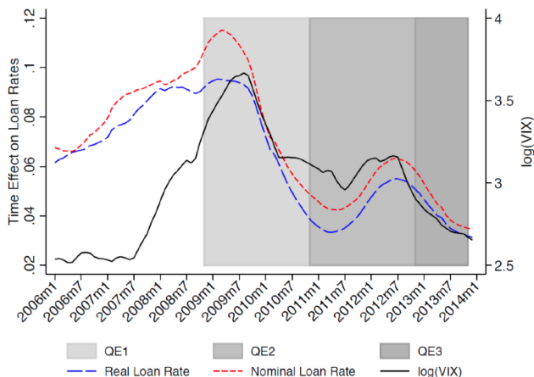
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- Quantify the impact of international shocks on the real economy beyond its impact on credit cycle

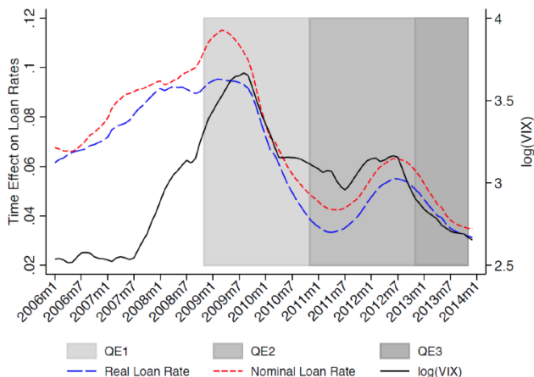
MODEL EXPERIMENT: Q.E. IN THE U.S.

FIGURE: Q.E., VIX and Borrowing rates in Turkey



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- 20bps drop in the 10-year term premium in the U.S., the estimated effect of \$500 billion of Q.E. (Kiley (2018)) \approx one-fifth of the overall Q.E.
- ...U.S. GDP expansion of slightly above 0.4% after 2 years

FIGURE: Spillovers from Q.E. in the U.S.

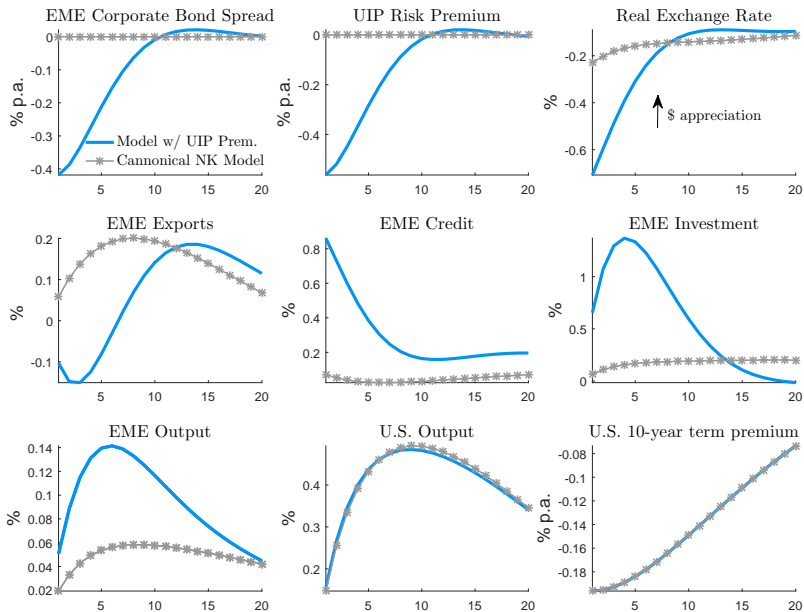
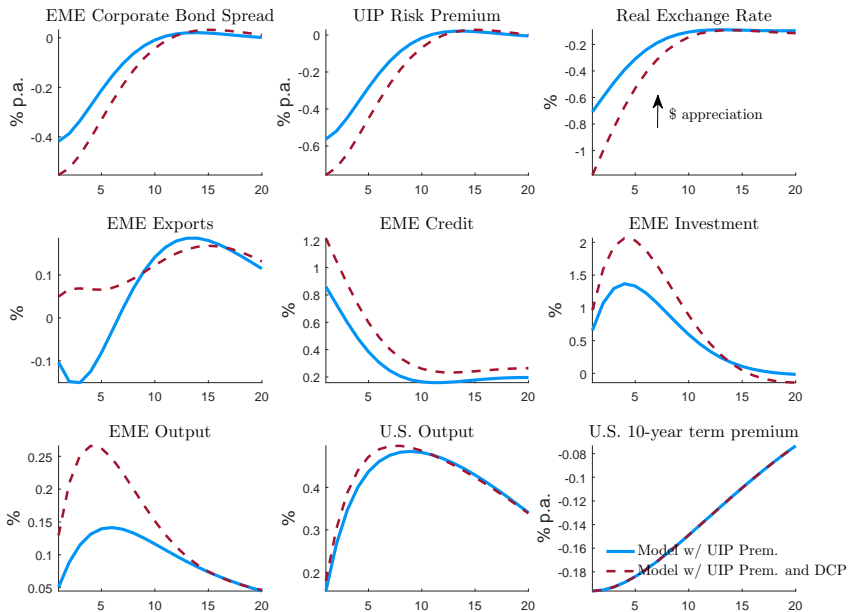


FIGURE: Spillovers from Q.E. in the U.S. with DCP



KEY TAKEAWAYS

- Model predicts exchange rate appreciation, lower corporate borrowing rates and local credit expansion in response to a fall in US term premium
- Balance sheet revaluation due to exchange rate changes in EMEs could be important in accounting for the spillovers

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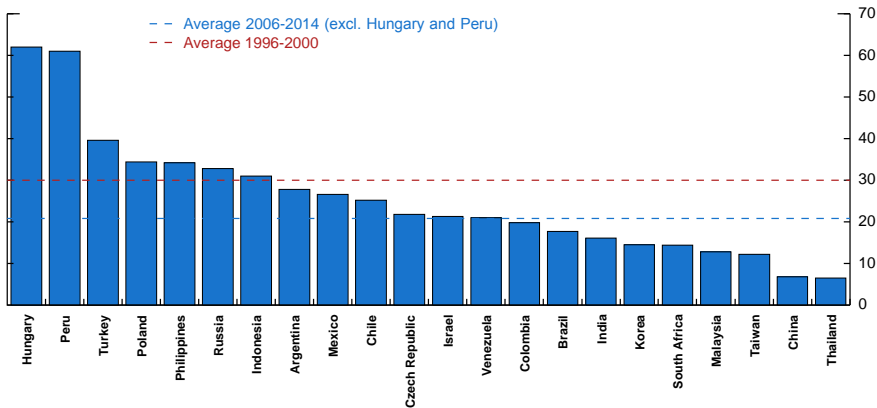
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EXCHANGE RATE AND COLLATERAL CONSTRAINTS

- Several other research emphasize the importance of foreign currency debt in accounting for international spillovers to EMEs
 - ▶ Krugman (1999), Cespedes, Chang and Velasco (2004), Bruno and Shin (2015), Aoki et al. (2016), ...
- The authors argue this channel is largely irrelevant for Turkey
 - ▶ Triple interaction: **Leverage, FXshare and VIX or Δ NER**
 - ▶ Currency composition of balance sheet data not available – a proxy used.
 - ★ Alternative measures of FX share or different cutoff to group firms as mismatched?

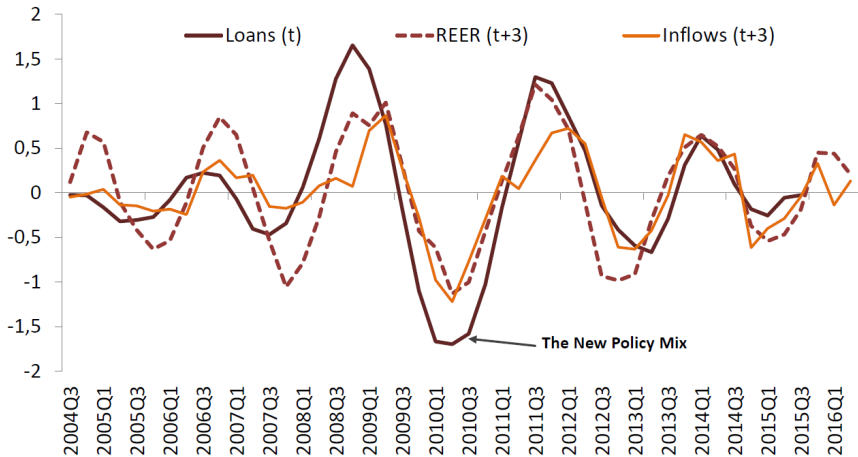
CURRENCY MISMATCH STILL SIZABLE IN TURKEY

Foreign currency debt as a percentage of total debt, non-government sectors



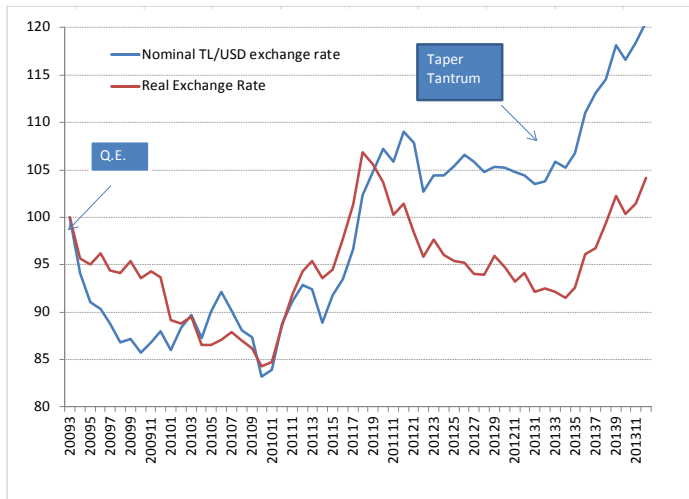
Source: Chui, Kuruc and Turner (2016)

Capital flows, exchange rate, and credit cycles (HP filtered, standardized)



Source: CBRT.

EXCHANGE RATES IN TURKEY



Source: CBRT

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OTHER POLICY TOOLS

- Reserve requirements and interest rates were used jointly for both monetary policy and macroprudential purposes during the authors' sample period
- In particular, RRR and remuneration rates are adjusted to favor
 - ▶ Core liabilities over non-core liabilities
 - ▶ Long-term over short-term
 - ▶ TL over FX
- Additional measures to limit FX borrowing

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- Additional measures to limit FX borrowing
- How do authors control for other policy tools?

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- Excellent paper!
- Micro data analysis is very rich
- Important empirical evidence on international spillovers