

DISCUSSION OF:  
“THE INTERNATIONAL BANK LENDING CHANNEL OF  
MONETARY POLICY RATES AND QE: CREDIT  
SUPPLY, REACH-FOR-YIELD AND REAL EFFECTS”

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# OVERVIEW

- Really nice paper.
- Plan:
  - 1 Review setup.
  - 2 Threats to identification.
  - 3 Most eye-catching result: reaching for yield.
  - 4 Interpretation of results and what we mean by reaching for yield.

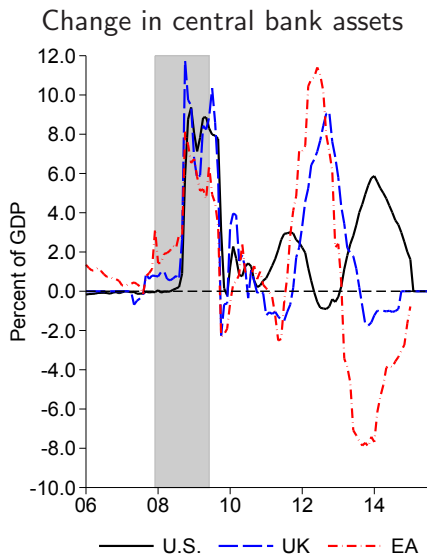
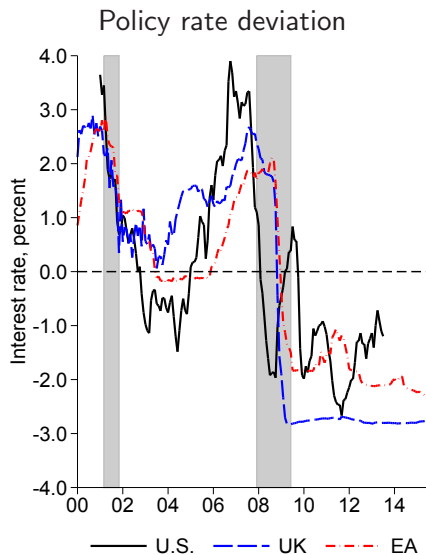
# CONTEXT

- Usual story of monetary policy spillovers:  $r \downarrow$  in LOE  $\Rightarrow$  capital flows into periphery.
- Usual story *not* bank-centric. Capital flow may occur through FDI, equities, bonds, or banks with access to international markets.
- Domestic bank lending channel instead focuses on monetary transmission through bank balance sheets.
- This paper: international bank lending channel.
- Identification: differences in monetary policy stance of home country  $\Rightarrow$  heterogeneous borrowing costs for banks.
- Key result: home country monetary policy stance affects lending specifically for headquartered banks.
- Note: international bank lending channel informative about domestic channel. If banks optimize on all margins, an extension of credit in Mexico implies a simultaneous extension of credit in the U.S.

## BANKS IN SAMPLE

Bank	Owner	Country
Bancomer	BBVA	Spain
Santander	Santander	Spain
Banamex	Citigroup	U.S.
HSBC	HSBC	UK
33 other	-	Mexico

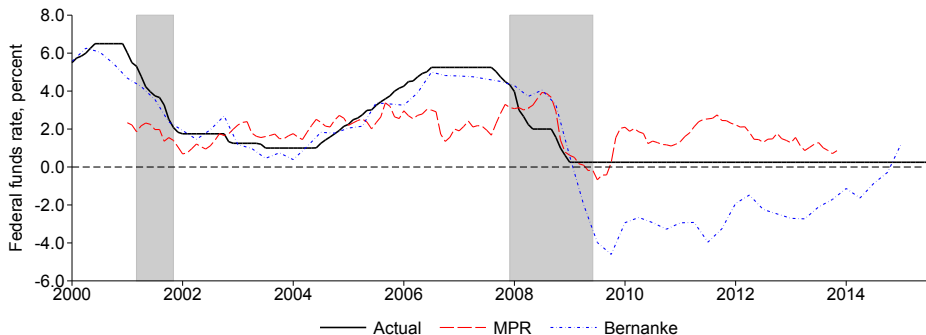
# MONETARY POLICY IN SAMPLE



# MONETARY POLICY STANCE QUIBBLES

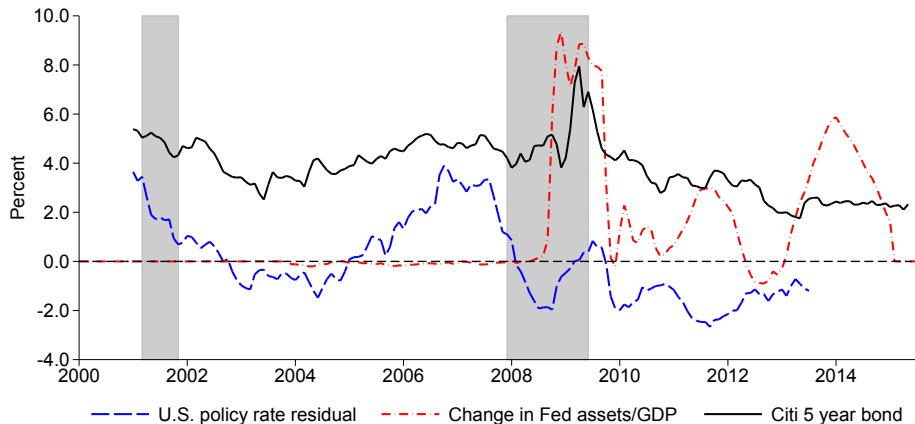
- MPR Taylor rule residuals somewhat nonstandard:

- ▶ MPR:  $FF_t = 0.14 - 0.07\Delta \ln GDP_t + 0.94\pi_t + \varepsilon_t$ .
- ▶ Bernanke:  $FF_t = 1.0 + (\ln GDP_t - \ln GDP_t^*) + 1.5\pi_t + \varepsilon_t$ .



- Effects of QE on interest rates (and exchange rates) likely occurred on announcement or in anticipation of announcement rather than when actual purchases took place. Stock holdings versus flow purchases. 3 month lag maybe not enough.

# BANK BORROWING COSTS AND MONETARY POLICY



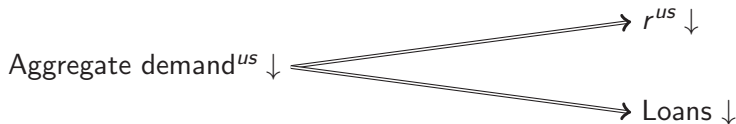
- Sample period contains banking crisis in each host country.
- Monetary policy also correlated with other policy interventions.

# THREAT TO IDENTIFICATION I

- Firms borrow from bank in country to which they export.
- Monetary policy is tighter when aggregate demand is high:

	Unemployment rate			Multilateral exchange rate		
	US	UK	EA	US	UK	EA
Policy rate	-0.64** (0.15)	-0.60** (0.057)	-0.71** (0.045)	-1.05 (1.00)	-4.95** (0.40)	0.95 (0.90)
$\Delta \frac{\text{CB assets}}{\text{GDP}}$	0.34** (0.096)	0.022 (0.037)	-0.015 (0.021)	0.53 (0.65)	0.46+ (0.26)	-0.85* (0.43)

- Confound:



- Works *against* finding an effect.
- Not solved by firm-period fixed effects if firm uses U.S. bank to finance exports to U.S. and Spanish bank to finance exports to EU.



## THREAT TO IDENTIFICATION II

- Firms borrow from bank in country with which they have supply chain relationship.
- Monetary policy affects exchange rate:

	Unemployment rate			Multilateral exchange rate		
	US	UK	EA	US	UK	EA
Policy rate	-0.64** (0.15)	-0.60** (0.057)	-0.71** (0.045)	-1.05 (1.00)	-4.95** (0.40)	0.95 (0.90)
$\Delta \frac{\text{CB assets}}{\text{GDP}}$	0.34** (0.096)	0.022 (0.037)	-0.015 (0.021)	0.53 (0.65)	0.46 <sup>+</sup> (0.26)	-0.85* (0.43)

- Confound:  $r^{US} \downarrow \implies$  dollar depreciates  $\implies$  Demand for Mexican inputs  $\uparrow \implies L \uparrow$ .
- Not solved by firm-period fixed effects if firm uses U.S. bank to finance U.S. supply chain and Spanish bank to finance EU supply chain exports.

# REACHING FOR YIELD I

- Measure of ex ante riskiness: interest rate above period average of **volume-weighted** average interest rate.

	High-yield loans	Low yield loans
Observations	5,946,242	996,564
Median volume	292	3,432
Mean collateral	0.45	0.24

- 85% of loans in high interest rate category. How? Large firms have large loans and lower interest rates.
- Substitute “size” for “riskiness” in results. Then very similar to small firms having higher sensitivity to monetary policy.
- Small point: table 4 panels A-D do not report firm fixed effect specifications because the definition of risky borrower is at the loan level rather than the firm level. If instead riskiness defined at firm level, could run firm fixed effect version.

## REACHING FOR YIELD II

- Ex post default:

	Dep. var.: default rate	
	High yield	Low yield
intrate-usr * us-bank	-0.52*	0.30
intrate-uk * uk-bank	-0.77***	-0.13
intrate-euro * euro-bank	-0.52**	0.07
intrate-mexr * mex-bank	0.18	0.13
qe-us * us-bank	0.13***	0.06
qe-uk * uk-bank	0.19***	0.09
qe-euro * euro-bank	0.13*	0.17*

- Interpret: 1p.p. lower U.S. policy rate  $\Rightarrow$  high yield firm borrowing from Banamex 0.5 p.p. more likely to default on loan 12 months later relative to other firms in same state and industry.
- But collateral rates also higher: ambiguous whether bank losses net of recovery rise.

# REACHING FOR YIELD III

- Chodorow-Reich (2014) channels for monetary policy to affect bank lending:
  - ▶ Hurdle rate effect: safe interest rate  $\downarrow \implies$  spending on risk projects  $\uparrow$ .
  - ▶ "Stealth recapitalization" of financial sector: general equilibrium effects on price of legacy assets.
  - ▶ Leverage: opportunity cost of holding reserves or collateral  $\downarrow$ .
  - ▶ Reaching for yield: principle-agent problem generates excess risk taking.
- Lower interest rates should lead to higher lending to riskier borrowers: Holmstrom and Tirole (1997), Williamson (1987), ...
- Theory of second best: in economy with suboptimal risk taking, reaching for yield can move economy toward first best.
- If banks optimize on all margins, an extension of credit in Mexico implies a simultaneous extension of credit in the U.S.
- Converse: hard to get Citi to lend more in U.S. without it also lending more in Mexico.
- Interpret: international policy spillovers from monetary policy. **Not** that home country set interest rates too low.