Comments on

"The Collateral Channel of Monetary Policy: Evidence from the European Central Bank"

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- Highly relevant question on effectiveness of monetary policy instruments
  - Fascinating data on recent ECB monetary policy implementation
  - Interesting analysis on ECB collateral policy and its impact on heterog. banks

I SUMMARY

II COMMENTS

Topic

- ECB liquidity provision since 2008
  - at fixed rate under full allotment
  - with extended maturity of repos
  - against a broadened range of collateral

- Different treatment of eligible assets
  - *Haircuts* as an monetary policy instrument

Two views

- Standard macroeconomic view of monetary policy
  - Allotment rates, repo maturity, and collateral policy are irrelevant
  - Realizations of haircuts shouldn't matter

- Ashcraft et al. (2011): margin constrained agents
  - Lower central bank haircuts can reduce banks' funding costs
  - Reduction in required returns and increased market prices

CK's paper

- Empirical analysis of the use of collateral at the central bank
  - Nested logit model for data on assets pledged at the ECB
- Main results: Use of specific assets as collateral depends on
  - the haircuts for specific assets at the CB, as well as on
  - asset rating, maturity, government's ratings & guarantees, availability
- Conclusions: Collateral policy
  - has differentiated impact on bank funding costs
  - can complement interest rate policy in the EMU

Overview

- Two static models of bank funding

  1. Optimal bank funding problem under moral hazard

  2. Banks' marginal profits with costs depending on (CB) funding

- Empirical model

  – Dependent variable: Value of pledged assets relative to interbank funding

  – Affected by: haircuts, asset ratings, gov. guarantees and ratings, maturity

  $\rightarrow$ Controlled for endogeneity of haircuts and of the share of asset pledged

Results

- Assets pledged at CB relative to outside funding increase with
  - lower haircuts, shorter maturity, higher rating,
  - and asset's share of CB funding

  and are used less (and probably more in private markets) when
  - government guarantees for the asset
  - government's credit rating is high

$\longrightarrow$ Mainly intuitive results!

Further results

- Policy counterfactuals

  1. Increase in the haircut of assets pledged at CB
     - Substitution with private funding and *mostly* with other assets at CB
  2. Higher haircut for non-investment grade gov. bonds
     - Largest effect on banks from low ranked countries

- Computations of required haircuts and bank's funding costs

I SUMMARY

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Too much for one paper

- Papers is packed with various information:
  - review, first banking model, exploratory analysis,
  - second banking model, emp. version, estimation equation, four applications

  $\longrightarrow$ Focus on major issues!

- Why do you use two theoretical models (with different frictions/costs)?
  - Present just the most suited model!
  - Cite the first and focus on the second model (used for emp. analysis)!

(Second) theoretical model

- Related to a nested logit representative consumer problem (Verboven, 1996)
  - Assumed "marginal profits" (instead of utility function with budget constraint)

- Marginal profits of private funding (X_0) and of CB funding (X_j) with costs $k's$

$$\begin{aligned} \pi_0 &= R'(q) - p - k_0(X_0) \\ \pi_j &= R'(q) - h_j + v_j + p + \theta_j - k(X_j, X_j/\Sigma_1^N X_k) \end{aligned}$$

- Relation to an optimizing bank
  - How can default probability p affect marginal profits with opposite signs?
  - Why does the *marginal* profit depend on total holdings θ_j of asset j?

Unclear derivation

- Share of CB funding with asset j :

$$\frac{X_j}{\Sigma_{-1}^{N} X} = \frac{\exp\left[\pi_j/(1-\sigma)\right]}{\left(\Sigma_1^N \exp\left[\pi_k/(1-\sigma)\right]\right)^{\sigma} \cdot \left[1 + (\Sigma_0^N \exp\left[\pi_k/(1-\sigma)\right])^{1-\sigma}\right]} \quad (1)$$

  depends on marginal profits π_j and π_0, now defined as

$$\pi_0 = R'(q) - p \text{ and } \pi_j = R'(q) - h_j + v_j + p + \theta_j.$$

  What happened to the marginal cost terms $k's$ in the profits functions?

- Condition (1) is not explicitly derived
  - CK just cite other studies (e.g. Verboven, 1996)
  - Show how (1) follows from a fully specified banking problem!

Measuring effects on bank's profits and funding costs?

- Central relation between relative amount pledged and profits implied by (1)

$$\ln(X_j/X_0) = \pi_j - R'(q) + \sigma \frac{X_j}{\Sigma_1^N X} \tag{2}$$

  or $\ln\left(X_j/X_0\right) = -h_j + \theta_j + v_j + p + \sigma s_{jg}$ where $s_{jg} = \frac{X_j}{\Sigma_1^N X}$.

- Unclear how (2) implies that (for all countries c and periods t)

$$\begin{aligned} \ln(X_{jt}/X_{0ct}) &= \alpha_{jct} - \beta_1 h_{jt} + \beta_2 \theta_{jct} + \beta_3 v_{jt} + \beta_4 p_{ct} + \sigma s_{jgct} + \varepsilon_{jct} \\ \Longleftarrow \quad \pi_{jct} &= \alpha_{jct} - \beta_1 h_{jt} + \beta_2 \theta_{jct} + \beta_3 v_{jt} + \beta_4 p_{ct} + \sigma s_{jgct} + \varepsilon_{jct} \end{aligned}$$

- Overall procedure casts doubts on CK's claim that

  – "bank's profits can be identified using the amount of assets pledged"

Results in table 4

- For what does "price" stand for in table 4
  - Is this the price of other assets pledged at the CB?
  - Higher "price" indeed reduces CB funding

- First banking model predicts that higher asset prices decrease funding costs
  - Accordingly, "government guaranteed asset" reduces CB funding
  - Explain why higher "asset rating" make CB funding more likely

  $\rightarrow$ Disantangle the effects from different variables!

Interpretation

- Is the "Collateral Channel" really a more traditional transmission channel than Ashcraft et al.'s transmission mechanism via asset prices?
  - If haircuts matter, then this should be reflected in the asset's price

- Does the analysis really show that collateral policy can be used "as a complement to the interest rate policy to accommodate asymmetric shocks"?
  - Analysis just shows that banks adjust their CB funding depending on haircuts

- Exciting topic and interesting paper on collateral policy,

  but still some work to show that collateral policy has aggregate effects