Discussion of "Collateral, Central Bank Repos, and Systemic Arbitrage?" (Fecht, Nyborg, Rocholl, and Woschitz)

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[1] The views expressed herein are not necessarily those of the Chicago Fed or the Federal Reserve System.

Summary with Some Question Marks

- Main objective: Try to understand better impact of CBs' policies on composition of their balance sheet
  - focus on credit risk exposure due to collateral transformation
  - weaker banks funnel credit risk to the CB by posting low quality collateral
- But if CB optimally adjusts haircuts and list of eligible collateral this should not be a problem.
  - But "optimal" conditional on what type of CB's objective function?
- Main result: banks with worse collateral borrow more from Eurosystem (scope for systemic arbitrage)
  - But is this an arbitrage, or at times, are CBs the only available source of funding for weaker banks?

Main Concerns

I am very sympathetic to the main objective of the paper but I find:

- Rhetoric of conclusions a bit too strong relative to robustness of empirical evidence presented in this study;
    - omitted variable issues
    - mainly crisis period
- Focus of analysis a bit too narrow
    - also considering that Fecht, Nyborg, Rocholl (2011) already show that banks in worse financial health (rather than with worse collateral) borrow more.

Alternative Rhetoric

I would like the paper to look more at the bigger picture, for example:

- the authors' credit risk "loophole" may be the very point of the policy;
- the authors' "financial fragmentation along national lines" (induced by this policy) may be diverging business cycles across EU countries:
  - Germany is recovering faster and needs to borrow less, while PIIGSC are getting in a deeper recession and need to borrow more;
- the authors' "banks' systemic arbitrage" may not be arbitrage
  - Uptakes are not shown to result from a strategy taking advantage of profit opportunities across close substitutes.
  - Maybe for weaker banks there were no substitutes!

The CB's objective function

- Problematic features: inclusivity, full-allotment, wide range of eligible collateral, and rigid haircuts
  - mostly introduced in October 2008, 1 month after Lehman's collapse.
  - "Problematic" because did support weaker banks.
- What does this tell us about the CB objective function?
  - Suppose that: By avoiding potential collapse of interbank transactions and thus of financial intermediation more in general, ECB likely helped to avoid an even worse economic downturn.
  - Some estimates suggest that IP was 2% higher and unemployment 0.6% lower than what would have been absent this policy (Giannone, Lenza, Pill, and Reichlin, 2012)
- CB decision: a bit more credit risk on my balance sheet versus a bit less economic downturn, which is my mandate.

Financial fragmentation?

- But even if we ignore the macroeconomic impact and focus only on financial risks: what about liquidity risk (versus credit risk)?
- There is evidence that CB injections of liquidity did reduce liquidity risk embedded in interbank rates (e.g., King and Lewis, 2015)
- This likely reduced money market spreads to policy rate
    - improving access to alternative sources of credit
    - such that better banks started relying less on ECB funding relative to weaker banks
- This can be seen as a positive outcome rather than a flaw
- So, is it correctly characterized as "financial fragmentation"?

Systemic Arbitrage

- European banks over time increasingly relied on wholesale funding rather than retail funding (deposits).
- Do the authors control for this source of funding (private repos versus ECB repos)?
- What are the available substitutes of ECB credit? How does the cost of these substitutes compare to the ECB fixed rate at the ROs?
- More robust evidence of systemic arbitrage would be:
    - after controlling for close substitutes of ECB's credit, both in terms of quantities (from observed balance sheets) and costs (money market spreads to policy rate), show that even if spreads are coming down and most banks have access to private funding, they still make disproportionate use of ECB facilities.

Specification Issues

- It seems that there are some omitted variables
  - to show that higher haircuts are caused by worse financial health
  - should regress haircuts on financial health variables while also controlling for proxies of collateral quality
  - otherwise may be capturing that riskier banks are more likely to invest in worse collateral and that is why are experiencing higher haircuts
  - more importantly what should matter is the interaction between financial health variables and collateral quality proxies
- Sample dominated by financial crisis
  - results in favor of systemic arbitrage hypothesis are mixed in the pre-crisis sample
  - but to convince us that the use of worse collateral to obtain CB credit is a choice and not a necessity, the results should hold in the pre-crisis sample