Forward-Looking Provisions and the Economic Cycle: Credit Supply and Real Effects

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Paper Overview

This paper calls into question the desirability of Expected Credit Loss (ECL) provisioning, including the notion that it reduces procyclicality.

It finds that the introduction of forward-looking provisioning in Columbia in 2007 led to:

- Higher provisioning and loan interest rates
- Declines in credit and economic activity of more affected firms
- These effects are *more* pronounced in times of economic stress
- ... and for banks with less capital, and there is some evidence that these banks search for yield.

If Incurred Credit Loss provisioning is "too little, too late," is ECL "too much and still too procyclical"?

Paper Overview

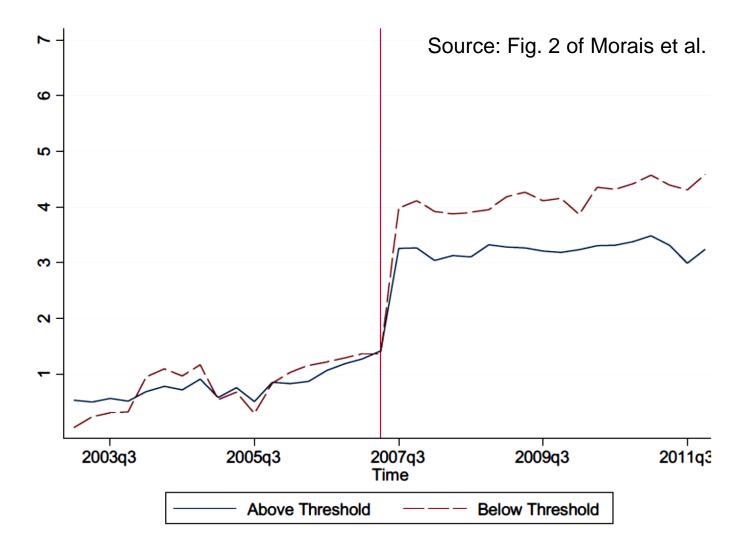
- Setting: the 2007 Columbian reform replaced ICL with forward-looking provisioning, similar to ECL approach.
- Under the new model, prescribed PD's and LGD's depend on dayspast-due, collateral, and borrower size.
 - The reform raised required provisions, in addition to making them more forward looking.
- Most of the causal identification is based on the somewhat arbitrary threshold for firm size, comparing firms just above and below it.
 - Post-reform, higher provisions for loans to firms < COP 2 billion in assets

Overall comments

- Compelling identification of causal effects of reform
 - Joint effects of higher and more forward-looking provisions
- Very well executed
- Shows the persistence of effects
 - Columbian reform occurred in 2007; IFRS9 and CECL are much more recent.
- The impacts are economically large as well as statistically significant.
- External validity: Are the Columbian banking system or the reform 'special' in ways that matter for its economic effects? How much can we extrapolate?
 - This question often comes up in papers with really good identification!

Economic Magnitudes

- Reform raises PD at origination from 0% to 1.1% for larger firms,
 1.6% for smaller firms → differential effect is 50 bps. (Table A2).
 - Expect differential effects on provisioning to be less than 50 bps.
 - Expected Loss= PD*EAD*LGD
 - Prescribed LGD does not depend on firm size
- But difference in *provisions* between firm groups is **1 p.p.** (Fig. 2) or, controlling for other loan terms, **1.4 p.p.** (Table 2).
 - Same ballpark, yet considerably more.
 - Could be explained if a significant fraction of <u>outstanding</u> loans are between 90 and 150 days past due, where PD's are 1-5 p.p. higher.
 - → Is that the reason? Or something else?



Economic Magnitudes (2)

- As a <u>back-of-envelope calculation</u>, <u>for given loan risk</u>, a 1.4 p.p. higher provisioning rate the should raise the *lending rate* by up to roughly 0.014 x required excess ROE
 - If req. exc. ROE = 10% (20%), then lending rate could increase by about
 0.14 p.p. (0.28 p.p.) more for smaller firms.
- Observed differential effect on average loan interest rates is 0.6-0.8
 p.p. (Fig. 4 and Table 4, respectively).
 - Again, a substantial amplification
 - Evidence of financial frictions? How profitable are Columbian banks?
 Can they increase retained earnings or raise equity?

Economic Magnitudes (3)

- Taking the differential effect on average loan interest rates as given (0.8 p.p. on an average loan interest rate of 18%), the differential impact on **lending volumes** is surprisingly large: **24-31%** (Table 3).
 - Based on semi-elasticity of demand for C&I loans of about 2 (Bassett et al., 2014), one would expect a decline of about 1.6 percent.
 - Aggregating loans to the firm level, the impact is, if anything, even larger, so result does not reflect substitution to other lenders.
 - Affected firms see a relative decline in Liabilities of 40%; Total assets: 30%;
 Sales: 20%.
 - Could this reflect a switch in lending from (smaller) subsidiaries to (larger, less affected) parents?
 - Or credit rationing? Or something else?

Other Comments and Questions

- Did the cyclicality of credit to the average firm increase or decrease after the reform?
 - Due to macro shocks, this average effect is less well identified than the relative impact of smaller versus larger firms, but it would still be nice to show.
- Are these mostly term loans, credit lines, or both?
- PD's are said to be lower when economic growth is low how much and why does this not matter more for reducing procyclicality?