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Comments on: "The relationship between banking market competition and risk-taking: decisions of Latin American banks"

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First of all let me congratulate the authors for a nice empirical study that proposing an interesting approach for studying the relationship between banking competition, risk-taking behavior, and banks' characteristics such as capitalization and size.

Recent literature on the risk-taking channel of monetary policy (Gambacorta, Borio, Tenjo and López) has suggested that monetary policy decisions may influence banks risk-taking decisions. Particularly, periods in which short-term interest rates prevail in low levels may induce banks to undertake higher risks in a search for yield.

The study I am commenting tries to answer to a very interesting and currently relevant question: does the degree of market competition affect banks' risk-taking decisions?

The authors identify two opposing theories in the literature. For some authors, competition enhances risk-taking behaviors as banks lower their lending standards in order to gain market shares. Other authors, on the contrary, suggest that in competitive banking systems market participants behave more prudently and crises are less likely to happen.

This paper seeks for empirical support favoring one alternative or the other, using information on banks from 10 Latin American countries for the period 2001 – 2008.

The first issue the authors deal with is that of measuring the degree of competition in the market for loans, an unobservable variable. This paper is innovative in using the Boone indicator for measuring the degree of competition in a banking market.

The Boone indicator, obtained by regressing the natural logarithm of banks' market shares on a particular market (loans market) on their marginal costs, considers that increases in competition amplify the performance gap between efficient and inefficient firms. When the degree of competition in a market increases efficient firms improve while inefficient firms obtain worse results.

The Boone indicator corresponds to the value of the parameter corresponding to the marginal cost. It is assumed that a reduction in marginal costs leads to a gain in market share (a better performance). Hence, the Boone indicator is expected to be negative. Of course, this assumes that competition occurs in a homogeneous product market. A more negative Boone indicator will be reflecting a more competitive market.

As marginal costs are unobservable, the authors obtain them for each bank by estimating a translog cost function for each country.

Using their database, the authors obtain an average Boone indicator for each of the ten countries in the sample. They obtained results that, for me, are surprising. The most competitive banking systems are those of Peru and Colombia, according to the results. Particularly, Colombia is a country with very few market participants in the loans market (18 banks!) and in which the four largest banks account for nearly 60% of total loans in the system. Therefore, I suspect that if instead of using the Boone indicator the authors would have used a more traditional measure in which competition is approximated by market concentration, the results probably would have been very different.

The authors appropriately recognize that there might be endogeneity problems in their approach: the behavior of market shares may also influence the behavior of marginal costs, or both variables might be simultaneously determined. Thus, they adequately use statistical tools for testing for potential endogeneity problems and for correcting them. They find that, according to the tests they perform, only in Peru marginal costs appear to be endogenous. They correct problems of endogeneity for Peru using instrumental variables.

One important but no surprising result is that apparently Latin American banks operate in less competitive environments than those in which European and US banks operate. This conclusion is reached after comparing their results with those of previous studies using developed countries' data.

The authors also address a very interesting question regarding the time series properties of market competition. They estimate year-by-year Boone indicators for each of the countries in the sample. They find that competition has evolved differently across Latin American countries. Competition has increased over time in Argentina, Colombia, Dominican Republic, and Mexico; has decreased in Brazil, Costa Rica, Panama, and Venezuela; and has not significantly changed in Peru and Chile.

Again, the results for Colombia, the case I know the best, surprise me a lot. The concentration of Colombia's banking system has progressively increased in the last ten years. After the financial crisis of the late 1990s the number of banks in Colombia fell dramatically. Many firms failed, others merged while others were acquired. Later on many other integration processes occurred partially induced by regulatory innovations: regulation in Colombia started promoting universal banking, leading to the integration of many financial institutions. At least for Colombia, the results would have probably been very different if concentration were used instead of the Boone indicator. Therefore, I suggest the authors checking the robustness of their results by using alternative measures for the degree of competition in loans markets.

The authors then proceed to study the relationship between competition and risk-taking behavior. They use the estimated Boone indicator as a proxy for competition and a traditional z-score as the proxy for risk-taking behavior.

The authors find a very interesting result: the relationship between competition and risk-taking behavior appears to present an inverse-U shape: banks operating in both low and high competition banking systems are less prone to risk-taking. Banks operating in average competition banking systems behave more aggressively towards risk-taking. Thus, none of the two competitive hypotheses of the relationship between competition and risk-taking can be disapproved.

I think the result is provocative and must be studied more carefully. Probably the authors are not properly controlling for differences existing across regulatory environments in each of the countries. It may be the case, for example, that banks in more competitive markets have on average higher incentives to undertake higher risks but regulatory constraints do not allow them to do so, at least in some countries. Probably using macroeconomic variables and country dummies, and recognizing the existence of country-specific unobservable effects is not enough to control for complex aspects of the regulatory environments operating in each country's financial system.

Finally, the authors find evidence supporting the idea that in competitive markets larger banks tend to behave more prudently than otherwise identical smaller banks. I find this result very interesting. Taking it seriously, it may have important implications in the discussion of macro-prudential regulation regarding too-big-to-fail issues in these economies. If larger banks in these countries are more prudent than smaller banks, probably in these countries fears for systemic risks emerging from the behavior of too-big-to-fail banks should not be an issue.