## Comment

María Soledad Martínez Pería: Barajas, Chami, and Cosimano use data for 2,893 banks in 152 countries between 1987 and 2000 to investigate the consequences of the adoption of the Basel Accord for bank capital and lending in developed and developing countries. In particular, the paper examines whether bank capital increased and lending declined as a result of Basel I. While this question has been researched extensively for the United States, it remains largely unexplored for developing countries. This study thus makes an important contribution to the literature by examining the so-called credit crunch hypothesis for a large number of countries. Nevertheless, some areas of the paper could perhaps be improved. My comments concentrate on the empirical approach, the interpretation of the findings, and the lessons from this paper when it comes to anticipating what Basel II might bring.

With regard to the empirical approach, this paper focuses exclusively on the long-run consequences of Basel I: the regressions in this paper test whether Basel I caused a permanent decline in bank lending. This is important for at least two reasons. First, this differs from most existing studies on Basel, and this has to be a consideration when comparing the results from this paper with those of previous studies. Second, the authors' focus on the long-run effects makes it harder to be confident that the model used to study the behavior of bank lending is well specified, since a large number of factors that could affect bank lending are likely to change over the long run. Unless these factors are contemplated in the estimation, it is not clear whether the results are robust. As currently specified, the estimated models do not control for factors like financial liberalization (including foreign bank entry), the adoption of deposit insurance schemes, and differences in local regulations and enforcement over time and across countries,

<sup>1.</sup> The one exception for developing countries is Chiuri, Ferri, and Majnoni (2002). On the United States, see Berger and Udell (1994); Hancock and Wilcox (1994); Jacques and Nigro (1997); Peek and Rosengren (1995); Shrieves and Dahl (1992).

all of which could influence both the level of capital held by banks and their lending behavior.

Another potential limitation of the empirical approach pursued by the authors is that it does not distinguish between countries and periods for which Basel I was binding and those for which it was not. The impact of the formal adoption of Basel I should presumably vary depending on whether this regulatory change was binding. It would be interesting to see whether changes in capital and lending differ for countries and period of capital shortfalls and surpluses vis-à-vis the Basel I standard.

Regarding the interpretation of the results, the paper overstates the robustness of some of the empirical findings and understates the importance of others. For example, the paper claims to find unequivocal evidence that capital increased following Basel I, no matter the measure of capital used. This result only holds, however, in one out of the six fixed-effects estimations reported for all countries. The authors also report OLS estimations with and without country dummies and a control for the level of financial development. In some of these estimations, albeit less than half, capital does appear to increase following Basel I. Nevertheless, the fixed-effects estimations, which allow for bank-specific intercepts, are probably the best estimators, since they adequately control for the average loan-to-asset ratios for each bank and highlight how the ratio changed after Basel I.

While the paper overestimates the increase in capital following Basel, it sometimes seems to downplay the evidence consistent with a credit crunch in the aftermath of Basel. The paper claims to find little evidence of a credit crunch despite the fact that all the fixed-effects estimations including all countries indicate a decline in loan growth following Basel I, while none of the loan-to-asset ratio fixed-effects estimations show an increase in lending. Here, the growth estimations are probably more reliable, since it is harder to interpret the behavior of bank loans from the loan-to-asset ratios, given that the latter are also driven by changes in total assets. I would therefore encourage the authors to give more weight to the findings from the growth estimations, especially those allowing for bank fixed effects.

Notwithstanding the comments made so far, this paper makes an important contribution to the banking literature by exploring the impact of regulatory changes for a wide set of countries, especially in Latin America, and the authors should be commended for their efforts. Also, the paper is very timely, since its findings have implications for the likely consequences

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of Basel II, the new capital accord to be implemented over the next few years. Unfortunately, though, the paper cannot shed light on a number of significant concerns raised about Basel II, such as whether it will lead to higher costs of credit and whether it will foster credit migration toward safe borrowers. These issues are likely to be a great concern for developing countries, and they warrant further research. The authors acknowledge this, and I hope they consider tackling these questions in future work.

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