New evidence on the effectiveness of macroprudential policies

In June of 2016, the Bank for International Settlements (BIS) and the Journal of Financial Intermediation (JFI) hosted a conference titled ‘‘The impact of Macroprudential Policies and their interaction with monetary policy: An empirical analysis using credit registry data”. The conference was held at the BIS Americas Office in Mexico City. This special issue, based out of a selection of the papers presented at the conference, provides new evidence on the effectiveness of macroprudential policies, also in light of the experience of the global financial crisis (GFC).

Prior to the GFC, financial stability was mainly considered from a microprudential perspective. The aim of supervisory policy was to reduce the risk that individual institutions would fail, without any explicit regard for their impact on the financial system as a whole or on the overall economy. Lehman Brothers’ default reminded us that financial stability has a macroprudential or systemic dimension that cannot be ignored. Treating the financial system as merely the sum of its parts leads one to overlook the system’s historical tendency to swing from boom to bust. Nowadays, financial stability is considered from a macroprudential perspective.

However, the implementation of a new macroprudential framework for financial stability raises a number of challenges. A first challenge is the evaluation of the effectiveness of macroprudential policies, especially when more than one tool is activated. Moreover, effectiveness of policies should be analysed trying to address challenges related to endogeneity. To this end, advances in econometrics and data sets at the micro level have opened up the possibility for more precise identification strategies. In particular, the use of detailed credit register (or other sources of micro) data allows proper identification of how macroprudential measures affect the supply of credit. At the moment, however, the evidence is mixed as most research has focused on analysing the impact of macroprudential tools using aggregate data, while the use of granular data have received less attention.[1] This special issue provides new evidence on the effectiveness of macroprudential policies using micro data.

The first paper “The impact of macroprudential housing finance tools in Canada” by Allen, Grieder, Peterson and Roberts uses a unique dataset that combines loan-level administrative data with household-level survey data on first-time homebuyers. Their study analyses the impact of recent macroprudential policy changes in Canada using a micro-simulation model for mortgage demand. They find that policies targeting the loan to value (LTV) ratio have a larger impact than policies targeting the debt service-to-income (DSTI) ratio, such as amortisation. This is because there are more wealth-constrained than income-constrained borrowers entering the housing market.

In “Prudential policies and their impact on credit in the United States” Calem, Correa and Lee analyse how two types of recently used prudential instruments affected credit supply in the United States. First, they test whether the US bank stress tests had any impact on the supply of mortgage credit. They find that the initiation of the Comprehensive Capital Analysis and Review (CCAR) stress tests in 2011 had a negative effect on the share of jumbo mortgage originations and approval rates at stress-tested banks – banks with worse capital positions were impacted more negatively. Second, they analyse the impact of the 2013 Supervisory Guidance on Leveraged Lending and the subsequent 2014 FAQ notice, which clarified expectations on the Guidance. They find that the share of speculative-grade term-loan originations decreased notably at regulated banks after the FAQ notice.

The third paper “Loan to value policy and housing finance: effects on constrained borrowers” by Araujo, Barroso and Gonzalez evaluates the impact of the introduction of LTV limits in Brazil against the backdrop

[1] Very limited use has been made of credit registry data with the notable exceptions of a study on the activation of dynamic provisioning in Spain (Jimenez et al., 2017) and a study on the effects of reserve requirements in Uruguay (Camors et al., 2019).

of a housing price boom in 2013. They use an adjusted two-stage difference-in-difference estimator that enables identification when treatment status is partially observed, as in this case of a hard LTV limit. This method is applied to detailed data at the loan- and borrower-level. The identification strategy is complemented by restricting the empirical estimations to subsamples that are progressively close to the LTV limit, reinforcing the comparability between treatment and control groups. Borrowers impacted by the macroprudential regulation are found to cope with the requirement also by choosing more affordable houses than they would otherwise do, thus requiring smaller down payments. A key result of the paper is that borrowers that were constrained by the LTV limit have a significantly lower chance of being in arrears, which ultimately limits the build-up of risk. These findings reinforce and quantify the effectiveness of LTV cap as a macroprudential policy.

In “Evaluating the impact of macroprudential policies on credit growth in Colombia”, Gómez, Murcia Lizarazo and Mendoza analyse the impact of two macroprudential policies in place in the period 2006–09. In particular, they evaluate the effects of the introduction of: (i) a dynamic provisioning scheme for commercial loans; ii) a countercyclical reserve requirement implemented in 2007 to control for excessive credit growth. Results suggest that both policies and an aggregate measure of the macroprudential policy stance had a negative effect on credit growth, and that this effect varies according to bank and debtor-specific characteristics. Particularly, effects are intensified for riskier debtors, thus suggesting that the aggregate macroprudential policy stance in Colombia has worked effectively to stabilize credit cycles and reduce risk-taking.

The last paper “The impact of macroprudential policies in Latin America: an empirical analysis using credit registry data” by Gambacorta and Murcia summarises the results of a joint research project by five central banks in Latin America countries (Argentina, Brazil, Colombia, Mexico and Peru) to evaluate the effectiveness of macroprudential tools and their interaction with monetary policy. The five country teams used credit registry data to estimate the impact of macroprudential tools on lending growth following a common methodology. The results are summarised using meta-analysis techniques and the main conclusions are that (i) macroprudential policies have been quite effective in stabilising credit cycles. The propagation of the effects to credit growth is more rapid for policies aimed at curbing the cycle than for policies aimed at fostering resilience; and (ii) macroprudential tools have a greater effect on credit growth when reinforced by the use of monetary policy.

In summary, we believe that the special issue advances our understanding on the effectiveness of macroprudential policies and their interaction with monetary policy. The papers should be of great interest not just to academics in the financial intermediation area, but also for policy makers.

References

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