International Prudential Policy Spillovers: Evidence from the International Banking Research Network

Introduction to a Special Issue of the International Journal of Central Banking

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The global financial crisis has affected almost all countries worldwide. Its epicenter has been in the core of the advanced economies. After the crisis, deleveraging has been slow while the structure of capital flows has changed from debt- to equity-type instruments. The decline in cross-border bank lending, particularly bank-to-bank flows, has been a key driver of these developments. The crisis has triggered substantive policy responses: fiscal and monetary policy measures have been used actively, stress testing and rules governing recovery and resolution regimes for financial institutions have been further developed, microprudential rules and in particular capital requirements have been tightened, and macroprudential toolkits have been assembled.

While progress is under way since the introduction of macroprudential policy instruments, experience with and lessons from these new instruments remain tentative. Assessing the impacts of the changes in policy and the effects on the real economy is a challenging task.

Among the effects on the real economy are the spillovers of prudential policy measures across borders. In this special issue of the *International Journal of Central Banking* we present a recent cross-country and cross-institution initiative by the International Banking Research Network (IBRN) that has explored responses of lending

[1]The views expressed are solely those of the authors and should not be interpreted as reflecting the views of the Deutsche Bundesbank, the Banque de France, the Federal Reserve Bank of New York, or the Federal Reserve System.

by globally active banks to changes in prudential regulations, distinguishing adjustment across modes of entry and types of policy instruments, and exploring heterogeneity across banks.

The IBRN was founded in 2012 to inform the academic and the policy debate on current issues related to international banking. It is a multi-country initiative,[2] currently bringing together research teams from more than twenty-five central banks and two international financial institutions—the International Monetary Fund (IMF) and the Bank for International Settlements (BIS). Most teams have access to confidential bank-level data on domestic and cross-border banking activities.

In this special issue, fifteen country studies and one cross-country study examine international spillovers of prudential instruments through credit provision by banks. Spillovers are defined very generally and do not necessarily reflect regulatory arbitrage or policy leakages. The studies focus on two main questions. First, does lending of internationally active banks respond to prudential policies implemented in home and foreign markets, and what are the channels for policy spillovers? Second, to what extent are the responses to prudential policies shaped by characteristics of banks and by macroeconomic factors?

The analysis conducted here used a coordinated approach to research whereby the same methodological framework and consistent data since the early 2000s—both bank specific and in terms of prudential instruments—is applied in each study. Taken together, the initiative generates broadly relevant insights, going well beyond the single-country case studies and capturing the types of insights that can most effectively be gleaned from work using micro-banking data. In a baseline model, all country teams use the same regression models analyzing inward or outward transmission of prudential policies. In addition to the baseline model, country teams address issues that are relevant for their countries, given the structure of their banks, their banking systems, and the available micro-banking data. These data cover lending activity, bank ownership, and balance sheet characteristics such as capitalization, deposit shares, total assets, and the share of illiquid assets. The micro-banking data used

[2] The current list of participating central banks and institutions as well as country studies are available at http://www.newyorkfed.org/IBRN/index.html.

in these studies help teams solve the identification problem which otherwise beleaguers impact assessment studies based on aggregate data.

To facilitate this analysis, the IBRN collaborated with the IMF and regulatory bodies in the individual countries in order to utilize and extend the Global Macroprudential Policy Instruments (GMPI) survey, which the IMF conducted in 2013. The collaboration resulted in a new cross-country and quarterly time series database for prudential instruments spanning sixty-four countries and the period from 2000 to 2014. The instruments covered include general capital requirements, sector-specific capital requirements, interbank exposure limits, concentration limits, loan-to-value ratio limits, and changes in (minimum) reserve requirements. The database is available at https://www.newyorkfed.org/ibrn.

Within this special issue, the paper by Claudia Buch and Linda Goldberg provides an overview of the full initiative, including its methodological and database contributions, and a meta-analysis that reveals key cross-country results. By design, the empirical studies summarized are very homogenous because all teams use the same baseline regression model. Hence, publication biases that can affect meta-analyses that draw on only published research are not an issue here. The new database on prudential instruments is described in the paper by Eugenio Cerutti, Ricardo Correa, Elisabetta Fiorentino, and Esther Segalla. The remainder of the special issue contains a cross-country analysis conducted by the Bank for International Settlements (Stefan Avdjiev, Cathérine Koch, Patrick McGuire, and Goetz von Peter) and then fifteen country-specific studies that highlight the inward and outward transmission of prudential policies and specific mechanisms as observed in detailed micro-data case studies. Countries represented are Canada, Chile, France, Germany, Hong Kong, Italy, Korea, Mexico, Netherlands, Poland, Portugal, Switzerland, Turkey, United Kingdom, and United States.

Overall, the main conclusions of this initiative are as follows: *First, there is evidence that prudential instruments sometimes spill over across borders through bank lending.* Spillovers are most likely to occur via the affiliates of foreign banks hosted in a country, although some evidence exists of inward transmission through home-country global banks.

Second, international spillovers vary across prudential instruments and are heterogeneous across banks. Bank-specific factors like balance sheet conditions and business models drive both the amplitude and the direction of spillovers to lending growth rates. Spillovers into lending growth from prudential tightening are positive in some cases and negative in others. There is some evidence that prudential policy change is associated with market share repositioning of banks internationally, with some foreign banks expanding activity in markets when local banks face tighter balance sheet constraints.

Third, international spillovers of prudential policy on loan growth rates have not been large on average, but have the potential to grow with broader use of macroprudential instruments. The quantitative size of international spillovers has thus far been viewed as small across country studies.

Having said that, the results of this project may underestimate the full impact of regulations on cross-border banking activities to date and the scope for effects in the future. Three considerations should be underlined. First, during the period of study, few country-specific macroprudential instruments were activated in the large countries that are home and hosts of global banks. Instead, increased capital requirements were enforced worldwide, which limits the scope for regulatory arbitrage. To the extent that macroprudential instruments will be used at a national level to an increasing degree, the potential for international spillovers is likely to increase as well. Second, the analyses focus on the effects of macroprudential policy along the intensive margin; implications for the entry and exit of financial institutions into foreign markets (i.e., adjustment along the extensive margin) have not been considered. Finally, while imposing a common methodology across countries has the advantage of making results comparable and performing an unbiased meta-analysis, it may cloud interesting and important country-specific features of the adjustment process.