WORLD BANK GROUP

Interest Bearing Notes

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A Finance & Private Sector Development Research Newsletter

What's new on our website

Global Financial Development Report 2019/2020

In November we released the *Global Financial Development Report 2019/2020*: *Bank Regulation and Supervision a Decade after the Global Financial Crisis ("GFDR 2019/20")*. The crisis revealed major shortcomings in banking market discipline, regulation, and supervision. The report thus provides new data and evidence on the regulatory remedies adopted to prevent future financial instability and sheds light on ongoing policy debates.

The empirical foundation for the report is the fifth round of the *World Bank – Bank Regulation and Supervision Survey* (the 2019 BRSS), which was also released with the report and is described **here**. The 2019 BRSS data, and that for the previous four BRSS rounds, can also be accessed through the World Bank data **catalog**.

World Bank research

More on bank regulation and supervision ten years after the global financial crisis

Former colleagues **Deniz Anginer**, **Ata Can Bertay**, and **Asli Demirguc-Kunt** have teamed up with IBN co-editor **Bob Cull** and our own **Davide Mare** on a background paper that accompanied the release of GFDR 2019/20. In it, they use the 2019 BRSS to document that capital requirements and regulatory capital holdings for banks have increased, though the finding on holdings hinges on how assets are risk-weighted. There are also indications that financial safety nets became more generous in many countries, and that supervisory capacity struggled to keep pace with the extent and complexity of new banking regulations. They then zoom in on the effects of capital, which serves as a buffer against bank losses and ensures that shareholders have the "skin in the game" that curtails excessive risk taking. However, a series of empirical tests shows that the link between capital and measures of bank risk (such as z-scores) is weaker in countries that have relaxed their definition of capital to include assets such as hybrid debt capital instruments, asset revaluation gains, and subordinated debt. Moreover, the relation between capital and bank risk is significantly weaker for large banks who are better able to manipulate capital ratios by reducing risk weights within their portfolios (e.g., through securitization), issuing securities that

can be used as Tier 1 capital (such as subordinated debt), and have greater discretion in meeting capital requirements through internal ratings-based approaches that can be opaque. In short, despite substantial progress on bank regulation since the crisis in terms of capital requirements, there is still cause for concern about future bank stability, especially among large banks.

Free riding in loan approvals: Evidence from SME lending in Peru

IBN co-editor **Miriam Bruhn** and our own **Claudia Ruiz**, together with **Irani Arraiz**, **Benjamin Roth**, and **Rodolfo Stucchi** investigate why private lenders may not be making more efforts to reach new borrowers. The authors partnered with a large bank in Peru. With financial support from the Inter-American Development Bank (IDB), this bank invested in a psychometric test to screen small business loan applicants who did not have a credit history. During a pilot phase, all applicants with a test score above a threshold were offered a loan. Using credit bureau data and a regression-discontinuity design, the authors find that most applicants end up with a loan from a competing lender instead, greatly diminishing the profits accruing to the partner bank. This effect is greater in regions where the partner bank faces more competition. These findings suggest that, as borrowers shop around for loans, lenders free ride off their peers' screening efforts. Lenders may thus underinvest in screening new borrowers and expanding financial inclusion. This phenomenon may justify subsidies for efforts to extend loans to new borrowers, including the adoption of novel screening technologies.

Property rights, political connections, and corporate investment

In a recent working paper, **Meng Miao, Dragon Yongjun Tang**, and IBN co-editor **Colin Xu** examine how an urban land titling program affects corporate investment in China. The literature on the impact of land rights has largely focused on rural land markets, and the limited literature on urban land rights focuses on outcomes such as asset values, investment in human capital, and responses in labor supply. This paper differs in examining how urban land titling affects corporate investment among listed firms in Shenzhen (one of China's most dynamic cities), under a Shenzhen government program that granted land titles on previously untitled land for some firms. Using a panel data set of listed firms in China and relying on a difference-in-difference approach to compare the treatment group and the control group (i.e., other listed firms that did not experience land titling), the authors find that urban land titling led to significantly higher corporate investment rates, a result that is robust to many specification checks. A particularly important check is instrumental variables regressions, which exploit an institutional feature that the titling program largely dealt with firms that were initially state-owned. Interestingly, this positive effect on investment is observed only for firms with political connections, as proxied either by initial state ownership, or by other measures of political connections such as the number of board members with working experience as government officials or the share of employees that are members of the Communist Party. Furthermore, the positive investment effects of titling for (currently) state-owned enterprises do not hinge on their political connections, but those for non-state-owned enterprises do. Two key implications of this paper are that the enforcement of property rights protection in China remains biased toward state-connected firms, and that accounting for links between firms' political connections and protection of their property rights in developing countries might be important for understanding the effects of different property rights regimes.

Our eclectic guide to recent research of interest

Improving inventory management for mobile money agents

Jason Acimovic, **Chris Parker**, **David Drake**, and **Karthik Balasubramanian** collaborated with a Tanzanian mobile money operator (MMO) to study how the MMO can improve the inventory management of mobile money agents. These agents are contractors of the MMO who act as contact points for clients who want to make financial transactions on their mobile phone that involve cash, such as depositing and withdrawing money. Agents need to decide how much money to stock each day. Transaction volumes vary across days and, on average, an agent ran out of money at least once during 49% of the days in the study. The authors employed a model that predicts money inventory needed each day to provide guidance to agents in a randomized experiment with close to 5,000 agents. The control group received no guidance. Various treatment groups received different guidance text messages and either some initial training explaining the messages or no training. Guidance text messages either provided a clear recommendation for how much money to stock the next day or statistics on how much money is needed on an average day and a busy day. Only one of the treatment groups displayed a significant decrease in the probability of running out of stock, relative to the control group (by 4 percentage points): the group that received training and text messages with clear recommendations. The other treatments had no effect. This finding implies that training is needed to make the text messages work. Also, agents respond better to clear guidance than to general information. Finally, less is more: one treatment included both the clear recommendation and general statistics, which appears to have been too much information.

Does household electrification supercharge economic development?

Historical studies of electrification in advanced economies, particularly the U.S., indicate that it brought about sizable long-term economic benefits for households. And so, it seems likely that electrification could yield similar benefits to households in less developed countries. For example, if electrification reduces the time spent on household tasks, it might free up women in those households to pursue income-generating activities outside the home. And electrification could also enable their children to study in the evening thus yielding a long-term educational benefit. In a new paper, **Kenneth Lee**, **Ted Miguel**, and **Catherine Wolfram** provide an excellent synthesis of the literature in this area, noting that the effects of large-scale electrification efforts in less developed countries are mixed. They also provide experimental evidence from a randomized roll-out of electrification in Kenya in which households were offered an opportunity to connect to the grid at different subsidized rates (ranging from fully subsidized to no subsidy). Sixteen to thirty-two months after installation of a connection to the grid, the average household showed no meaningful gains across a wide range of outcomes. But the most important findings from the study relate to the heterogeneity of impact. From the responses to the randomized offers of subsidized connection, the authors elicit a measure of willingness to pay for electricity, and they find that the subgroup of households with high willingness to pay, which they readily admit could be tied to wealth, better access to credit, or other unobserved dimensions of ability, ambition, or opportunity, benefit more from an electricity connection than others. They spend substantially more on electricity, acquire more appliances (such as mobile phones and televisions), and are more likely to become employed or own a business, to

experience significant growth in total assets, and to report better health outcomes. Thus, the authors suggest that the impact of residential electrification may hinge crucially on the extent to which households are positioned to take actions and make complementary investments that allow them to make the most out of connection to the grid.

The value of communication: Evidence from a field experiment with entrepreneurs in Togo

Communication practices can play a central role in how businesses share ideas and information. Advice from peers can serve as an important repository for learning to manage a business, identifying market opportunities, and adopting new practices. In a new field experiment in Togo, **Stefan Dimitriadis** and **Rembrand Koning** test whether improving communication practices through a business training program can improve new and existing relationships, as well as business performance. The results show that entrepreneurs who were exposed to better communication practices perceive interactions with other businesses more cooperatively and exchange more information during those interactions. Moreover, improving communication practices also led to a 50 percent increase in the number of relationships entrepreneurs formed with peers. These relationships exhibited more matching based on skill and were more ethnically diverse. Finally, this form of training also led to significant improvements in business performance. Overall, this type of training provides a new avenue for enhancing the performance and efficiency of small businesses in developing countries.

Learning management through matching: A field experiment using mechanism design

In a new working paper, **Girum Abebe**, **Marcel Fafchamps**, **Mchael Koelle**, and **Simon Quinn** study the impact of exposing motivated youth to management practices of established firms in Tanzania. Specifically, the study places young professionals for one month to shadow middle managers in partner firms. In theory, such placement can help youth learn various aspects of management, including monitoring performance against targets, organizing relationships with clients, managing suppliers, and generally navigating the business environment. While the results of this intervention find a positive average effect on wage employment for these youth, they do not show any significant impacts on the likelihood of self-employment. However, these average effects mask substantial heterogeneity – using an innovative method of using marginal treatment effects and dual ranking by candidates and firms to simulate counterfactual mechanism design, the authors find a positive effect on self-employment of being matched to a high-management firm. Furthermore, this effect is larger and significantly different from zero for participants who rank high-management firms highly and are highly ranked by them. For these subjects, assignment to a high-management firm increases the probability of self-employment by 3-4 percentage points relative to assignment to a low-management firm. These results demonstrate the importance of treatment heterogeneity for the design of field experiments and the role of matching algorithms in intervention design.

The old boys' club: Schmoozing and the gender gap

Zoe B. Cullen and **Ricardo Perez-Truglia** use a unique panel data set of the employees of a large commercial bank in Asia to investigate what drives the gender wage gap. Their hypothesis is that the gap is driven by the 'old boys' club,' that is, benefits conferred through male-to-male socialization on the

promotion probabilities of males. They use a triple differences identification strategy in which they estimate old boys' club effects as the change in promotion probability for male employees after two events: a male employee experiences a change from having a female manager to having a male manager, or the employee experiences a change from one female manager to another. They find that a switch from a female manager to a male manager significantly increases the promotion probability for a male employee. They repeat this exercise for female employees and find that their promotion probabilities are not affected by the gender of their manager. They go on to offer additional evidence in support of an old boys' club effect. First, those effects show up only a year after the managerial change, consistent with the notion that socializing takes time. Second, male employees who smoke benefit most from a female-manager-to-male-smoker-manager change; the promotion probabilities of male non-smokers do not increase as a result of this change. As robustness checks, they show that male and female employees are similarly likely to leave the bank after these managerial changes, and that there is no significant change in the amount that they work. They are thus able to rule out that differential attrition or effort could be driving their results. The paper suggests that the manager-employee relationship depends on the gender of the boss, and that gender-specific socialization patterns affect the gender wage gap.

Upcoming events and miscellanea

Calls for Papers

The **10th International Conference of the Financial Engineering and Banking Society** (FEBS) will take place at the Conference Center of the Mediterranean Agronomic Institute of Chania (MAICh), near the Greek city of Chania, from June 4 to 7, 2020. The conference theme is "Stability and Risk in Banking and Financial Markets." Keynote speakers include Rama Cont and Luigi Guiso. The deadline for submitting a paper is January 15, 2020.

2020 German Economic Association Conference on Development Economics and Policy
The GIGA German Institute of Global and Area Studies and Helmut-Schmidt-Universitat Hamburg are hosting the annual conference of the German Economic Association Research Group on Development Economics on June 25-26 in Hamburg, Germany. The conference brings together international scholars and researchers in development economics and neighboring fields and will reflect the current state of research in development economics and provide a forum for exchange between researchers and practitioners. Interested contributors are invited to submit a full paper by February 15, 2020.

2020 Baltimore Area Finance Conference
The Sellinger School of Business and Management at Loyola University Maryland will host the 2020 Baltimore Area Finance Conference on April 24, 2020. The one-day conference will feature research papers in the areas of corporate finance and investment. The deadline for paper submission is January 31, 2020. Authors of accepted papers will be notified by March 15, 2020.

The conference is free to attend and includes breakfast and lunch. Registration must be completed by March 31, 2020.

Happy reading!

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