Interest Bearing Notes

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A Finance & Private Sector Development Research Newsletter

What’s new on our website

Using big data to expand financial services
A new brief by Facundo Abraham, Sergio Schmukler, and José Tessada describes how financial intermediaries can use big data to provide more and better services to existing and new clients. The brief also discusses the risks of using big data in financial services. It concludes with challenges and opportunities for policymakers.

World Bank research

Bank capital and risk in Europe and Central Asia ten years after the crisis
Our own Davide S. Mare, together with our former colleagues Deniz Anginer and Asli Demirgüç-Kunt, examine changes in bank capital and capital regulations since the global financial crisis in the Europe and Central Asia (ECA) region. The crisis revealed significant weaknesses in capital regulations. Financial institutions lacked high-quality capital to weather the crisis, resulting in government support to rescue them. After the crisis, several reforms were implemented to strengthen capital requirements. The paper uses bank-level information on over 20,000 banks (from Bankscope and BankFocus) to show that, ten years after the crisis, banks in the ECA region are better capitalized as measured by regulatory capital ratios, i.e. regulatory capital over risk-weighted assets. However, the increase in simple leverage ratios, i.e. equity over total assets, has been much more limited. Further analysis to reconcile these different trends shows that the ratio of risk-weighted assets to total assets has declined. Also, data from the Bank Regulation and Supervision Survey shows that the definition of Tier 1 capital has been relaxed. Overall, it is thus not clear whether the increase in regulatory capital ratios truly reflects a decrease bank risk. In fact, regression analysis suggests that bank risk in the ECA region is more sensitive to changes in simple leverage ratios than in regulatory capital ratios, likely because leverage ratios only include high-quality capital and do not rely on internal risk models to compute risk-weights. Whether regulatory capital proves to be adequate in the next crisis will depend on the accuracy of risk weights in truly capturing forward-looking risk and on the loss absorbing capacity of lower quality capital that is now part of Tier 1.

Analyzing financial risk management in agriculture with Findex data
Many farmers in less developed countries only get paid once or twice a year, and they are exposed to a variety of risks related to production and markets due to weather and disease shocks. Financial services
could therefore be especially helpful in managing these risks and thus our own Leora Klapper, Dorothe Singer, Saniya Ansar, and Jake Hess have added a new module to the World Bank’s Global Findex database that covers households engaged in growing crops and/or raising livestock in fifteen lower-middle- and low-income Sub-Saharan African countries. The responses to the survey are sobering. A sizable majority have suffered a bad harvest or significant livestock loss within the past five years, and most have had to cover the associated costs entirely on their own. Basic accounts, credit, savings, and insurance could be crucial tools for managing these risks, but very few of these households have access to these financial services. Only a third of the adults surveyed from these households had an account; 13 percent had saved at a formal financial institution over the past twelve months; and 30 percent of those living in households where growing crops was the main income source had borrowed to finance agricultural inputs over the past five years. There are some signs of hope, however. In Kenya, where mobile money has taken off, 89 percent of adults in agricultural households had an account. Similarly, in Uganda that share was 70 percent. The authors point out that digitizing payments for the sale of agricultural products offers opportunities for greater use of financial services for those who already have an account. Alternative delivery channels for those services are likely to be key as the data clearly show that traditional channels have failed to reach these households.

**Toward successful development policies: Insights from research in development economics**

World Bank Group President David Malpass recently asked the staff of the Development Research Group what major insights have emerged from development economics in the past decade, and how they matter for the World Bank. In response, staff prepared a set of thirteen short, non-technical essays that were recently published as a working paper. The essays fall under four broad headings: how to design policies; how to implement policies; how to evaluate policies; and new insights on policies that work from recent research. Look for essays from our own Xavier Giné on identification of the causal effects of policies on development outcomes, Leora Klapper on the impact of digital financial transactions, David McKenzie and IBN co-editor Bob Cull on the difficulties of scaling up policies that show promise as small-scale pilots, and Bob Cull on new data sources for tracking and analyzing the effects of development policies.

**Heterogeneous effects of the de jure and de facto business environment**

A sound business environment (BE) is increasingly recognized as a key driver of economic development, but the BE is measured using different approaches, and results based on different data sources often result in different conclusions. Christine Qiang, He Wang and IBN co-editor Colin Xu use three different widely-used datasets on the BE — the Global Competitiveness Indices from the World Economic Forum, the Doing Business indicators, and indicators from the World Bank Enterprise Survey — to examine how they are associated with firm performance and whether relying on multiple sources of BE data sheds new light on its effects. Among the many aspects of the business environment, a handful yield robust significant findings across (at least) two of the data sources that are not contradicted by the third: access to finance, electricity, and the internet, and human capital. The effects of de jure business environment indicators on firm performance, as captured by the Doing Business indicators, are found to depend on measures of contract enforcement. Foreign-owned firms benefit more from the maintenance of physical safety and ease in obtaining construction permits than other firms, and they gain competitive advantage in
productivity when domestic infrastructure or access to finance is worse (presumably because they can more easily substitute away from local finance and infrastructure). Relatively small firms benefit more from control of corruption, basic and modern infrastructure, human capital, and access to land. Relatively large firms benefit more from physical safety, while access to finance is especially important for the expansion of smaller firms and the productivity of large firms. In all, and encouragingly, there are a number of coherent themes that emerge across multiple data sources.

Foreign direct investment and female entrepreneurship

All over the world, women have improved their lot relative to men in areas such as tertiary education, the gender wage gap, and labor participation rates over recent decades. But how do women fare in business leadership? Sheng Fang, Heba Shamseldin, and IBN co-editor Colin Xu focus on the determinants of female leadership in businesses, and in particular, the role played by foreign direct investment (FDI) around the world. They use the World Bank Enterprise Survey data and supplement it with complementary indicators of barriers to female entrepreneurship and women’s empowerment. They define female entrepreneurship as having both women’s participation in firm ownership and a female as the top manager of the firm. By this measure, female entrepreneurship varies from zero in some countries to close to 40 percent in Mongolia. They obtain several findings. Female entrepreneurship increases with higher FDI inflows, lower entry barriers for women, better access to finance for women, higher female labor force participation, and women’s education. The positive association between FDI inflows and female entrepreneurship is stronger for firms in the service sectors and for small-sized firms. The association between female entrepreneurship and industry-level FDI is on average insignificant, indicating no intra-industry FDI crowding out effects for female entrepreneurship. However, intra-industry FDI does significantly crowd out female entrepreneurship when women face high entry costs and when the female labor participation rate is low, and this is not offset by women’s access to finance or their education levels.

Our eclectic guide to recent research of interest

Do capital grants improve microenterprise productivity?

Laurin Janes, Michael Koelle, and Simon Quinn use data from two papers we covered in earlier issues of the IBN: de Mel, McKenzie, and Woodruff (2008) on Sri Lanka and Fafchamps, McKenzie, Quinn, and Woodruff (2014) on Ghana, to estimate the effects of capital grants on microenterprise productivity. The earlier papers found that capital grants increase microenterprise profits. They report that most enterprises used capital grants to purchase raw materials or goods for resale, which allowed microentrepreneurs to scale up their operations. Janes, Koelle, and Quinn focus instead on a different channel: investment in new technology. They document that while capital grants raised inventories, the grants also led to an increase in the amount of high-tech capital in microenterprises and increased productivity. The effect on inventories goes away after one year, but the effect on high-tech capital and productivity persists for two or more years. The authors argue that, more than just scaling up current operations, the capital grants thus allowed microenterprises to change the way they do business. An example of how technological upgrading worked in this context is that some microentrepreneurs used capital grants to buy refrigerators,
which allowed them to sell refrigerated products and reduced product spoilage. The papers sheds light on why microenterprises tend to have low productivity: one reason appears to be capital constraints.

**Do workers discriminate against female bosses?**

Martin Abel investigates the role of gender discrimination by subordinates in the workplace through a real effort field experiment set in the gig economy. The research design involves hiring real employees to transcribe receipts for a fictitious firm. Managers with female and male names are randomly assigned to these workers, who then provide positive or negative feedback to the employees. The outcomes include worker performance as well as job satisfaction. The study finds that critical feedback has a negative effect on workers’ attitudes, especially when this feedback is delivered by a female manager; in fact, criticism from female managers doubles the share of workers not interested in working for the firm in the future and causes a 70% larger reduction in job satisfaction than identical criticism from male managers. There is evidence that these differences are smaller for younger workers, suggesting gendered expectations play an important role in driving these effects. This paper is a unique exercise in quantifying the level of discrimination against female managers as male workers are more dismissive of criticism from women, even when the feedback is identical.

**Women’s promotions and intra-household bargaining: Evidence from Bangladesh**

In a new paper, Hannah Uckat studies how women’s promotions in the workplace affect their bargaining power in the household. The research design exploits a quasi-random promotion program in 27 Bangladeshi garment factories, which provides a credible and exogenous increase in women’s bargaining power. The study uses three estimation approaches: machine-learning to choose predictive control variables for OLS, regression discontinuity, and matching. The common results from these approaches are that promotions are successful in advancing women's careers and increase bargaining power within the household. The bargaining effects are most prominent for the share of income that households spend on assignable goods for women, such as clothing and accessories, as well as the income share of remittances. Investigating mechanisms, the paper finds suggestive evidence that the increase in household bargaining power is driven by women’s experience in leadership positions at work, which spill over to greater bargaining in the household. The paper finds evidence that this position effect operates by improving women’s attitudes and beliefs about themselves, which likely enables them to get more involved in household decisions. These results suggest a strong complementarity between women’s power in the workplace and women’s power in the household, and suggest that policies to promote female careers have the potential to address inequalities in the household at the same time.

**Upcoming events and miscellanea**

**Digital money: Implications for emerging market and developing economies**

A recent column by Erik Feyen, Jon Frost, and Harish Natarajan discusses whether stablecoins, a form of digital currencies, can improve access to financial services in developing countries. The authors list several challenges associated with stablecoins that limit their usefulness. For now, the authors seem to see more promise in fintech innovations that facilitate access to and use of the existing financial
infrastructure, such as digital ID and mobile banking.

**Eighth Annual Community Banking Research and Policy Conference**
The U.S. Federal Reserve System, the Conference of State Bank Supervisors, and the Federal Deposit Insurance Corporation (FDIC) invite the submission of papers for their eighth annual community bank research and policy conference, which will be held September 30 – October 1, 2020, at the Federal Reserve Bank of St. Louis. Papers that explore all aspects of community banking may be submitted. The organizing committee especially welcomes empirical and policy-oriented papers. The deadline to submit a detailed abstract or completed paper is June 5, 2020. Please send your submissions by email to conference@communitybanking.org. Authors of accepted papers will be notified by July 24, 2020.

**FDIC/JFSR 20th Annual Bank Research Conference**
The FDIC’s Center for Financial Research and the Journal of Financial Services Research (JFSR) invite submissions for the 20th Annual Bank Research Conference to be held in Arlington, Virginia on Thursday, September 10th, through Saturday, September 12th, 2020. The program committee invites theoretical and empirical papers on issues related to the performance and regulation of the financial sector. Selected papers may be invited for submission to the JFSR for a special conference issue. Expenses for travel, food, and lodging will be reimbursed for paper presenters. Papers must be received by May 1, 2020. Authors will be notified about the status of their papers in July 2020. For additional information, please contact Rosalind Bennett at FDICJFSRConference@fdic.gov.

**The Third Toronto Fintech Conference**
Submissions are invited to the 3rd Toronto Fintech Conference, which will take place November 5 - 6, 2020. This is an event held every 18 months, where scholars in the fields of strategy/management, economics, finance, entrepreneurship/innovation, organization theory/sociology, and law/public policy discuss their research on the rise, diffusion, and disruptive potential of financial technologies ("Fintech"). The submission deadline is June 15, 2020.

Happy reading!

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