Interest Bearing Notes **Vol. 20 No. 1**

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The next issue of Interest Bearing Notes will appear in March 2017 so please send comments, suggestions (such as your own or others' interesting research), and requests to be added to our distribution list, to Bob Cull (mailto:rcull@worldbank.org) by March 6th.

IBN is a product of the Finance and Private Sector Development Team in the World Bank's Development Research Group. Our working papers and descriptions of research projects in progress can be found, along with a list of forthcoming seminars and conferences, on our web page (http://www.worldbank.org/en/research/brief/finance-private-sector).

I What's new on our website

Two-part blog on usage of digital finance

Our own **Leora Klapper** and **Jake Hess** recently contributed a two-part blog to the World Economic Forum. In part 1, they discuss how digital financial services are improving the financial lives of the poor and tackle issues surrounding measurement of digital services usage.

www.weforum.org/agenda/2016/12/people-are-escaping-poverty-with-the-help-of-digital-finance-how-should-we-measure-that-1

In part 2, they discuss five ways to maximize the potential of digital finance to help lift households out of poverty.
https://www.weforum.org/agenda/2016/12/five-ways-to-help-more-people-benefit-from-digital-finance

II World Bank research

Foreign banks and international transmission of monetary policy
Our own **Asli Demirguc-Kunt**, together with **Bálint Horváth** and **Harry Huizinga**, use data on syndicated loans extended by lenders in 50 countries to borrowers in 124 countries from 1995 to 2015 to examine how monetary policies are transmitted from lending countries to borrowing countries. In line with previous research, they find that lower policy interest rates in lending countries increase cross-border credit supply, especially to weaker firms (as reflected in a relatively low equity to assets ratio). What's new and thought provoking is the finding that the presence of foreign owned banks in a borrower country reduces the sensitivity of cross-border lending to lender-country policy interest rates. How do foreign banks play this mitigating role? For one, a multinational bank with a subsidiary in a borrowing country can substitute local funding for parent-country funding when policy interest rates in the lending country increase. And indeed, the authors find that the mitigating role of foreign bank presence is reduced if policy rates in the borrower country are high, presumably because borrower country funding is too expensive to substitute for lender-country funding. All in all, the patterns indicate that foreign bank presence can help stabilize the supply of cross-border loans and shed light on how and when monetary policy changes in lender countries are most likely to pose challenges to credit supply in borrowing counties via the syndicated loan market.
http://documents.worldbank.org/curated/en/190371483993294665/Foreign-banks-and-international-transmission-of-monetary-policy-evidence-from-the-syndicated-loan-market

International financial integration in East Asia and the Pacific
Tatiana Didier, **Ruth Llovet Montanes**, and **Sergio Schmukler** use their comprehensive data set of bilateral cross-border portfolio investments, syndicated loans, mergers and acquisitions, and greenfield investments to describe the evolving role of economies in East Asia and the Pacific (EAP) in global financial integration since the early 1990s, both as investors and recipients of international capital. They demonstrate that cross-border capital flows involving EAP countries have grown substantially, both within and outside the region. Those flows have increased even

relative to GDP, which is noteworthy because EAP grew more quickly than any other developing region, accounting for 28 percent of world GDP in 2015, up from 19 percent in 1990. Although the flows received by the EAP region have grown, outward cross-border investment still far outweighs inward investment, but that's because China, Japan, Korea, and Singapore invest so heavily in other countries both within the region and abroad. When those countries are excluded from the analysis, EAP countries are shown to be net importers of capital, receiving investment at a rate comparable to that of other developing regions. Finally, the authors find a strong association between EAP's capital flows and its bilateral trade flows, though more research is needed to understand whether these investments are targeted to exporting sectors where EAP countries enjoy comparative advantage and expertise. http://documents.worldbank.org/curated/en/707681469623770227/International-financial-integration-of-East-Asia-and-Pacific

Can enhancing the benefits of formalization induce informal firms to become formal?

Existing evidence suggests that easing entry regulations and providing information on the formalization process has only limited impact on the formalization of informal firms. In a new paper, our own **David McKenzie**, together with **Najy Benhassine**, **Victor Pouliquen**, and **Massimiliano Santini** test whether offering supplementary services can enhance take-up and returns to formalization. They worked with the Government of Benin as it launched a simplified registration regime for small informal businesses. The pilot phase of this new regime included a randomized experiment, where about 3,600 informal firms were divided into a control and three treatment groups. The first treatment group received in-person visits explaining the benefits of formalizing and help with registering if needed. The second treatment group received the in-person visit, facilitated access to government training programs, and support to open a business bank account. The third treatment group received the services provided to groups 1 and 2 and was also offered support in dealing with tax authorities. Administrative data on formalization show that only 2 percent of the control group formalized over a two year period. All three treatments had significant impacts on formalization: a 9.6 percentage point increase in registration in the first treatment group, 13 percentage points in the second, and 16.3 in the third. Data from follow-up surveys indicate that formalizing led to increased participation in business training, more formal accounting, lower tax harassment, and less taxes paid (due to a tax exemption in the year after formalizing). However, formal firms were not significantly more likely to obtain business bank accounts or loans, did not gain more customers, and had no significant gains in sales, profits, or standard of living. Thus, the benefits of formalizing were modest. David and co-authors also calculate that the cost of the intervention and conclude that while introducing a simplified registration system offers at least time-saving benefits for firms that want to

formalize, adding additional services or in-person visits is unlikely to pass a cost-benefit test.
http://documents.worldbank.org/curated/en/579081480451260134/Can-enhancing-the-benefits-of-formalization-induce-informal-firms-to-become-formal-experimental-evidence-from-Benin

Are labor supply decisions consistent with neoclassical preferences?
In a new paper, our own Xavier Gine, together with **Monica Martinez-Bravo**, and **Marian Vidal-Fernandez** contribute to the literature on the wage elasticity of labor supply by focusing on the extensive margin of labor participation decisions among boat owners in South India. The authors use detailed data on seven-year labor histories of 249 boat owners to assess how past labor participation decisions and recent earnings affect current labor supply decisions. They test the standard neoclassical model of labor supply, which predicts that (i) individuals should be more likely to work when earnings are temporarily high and (ii) recent accumulated earnings should play no role in the participation decision. Consistent with previous literature and in line with neoclassical predictions, the study finds that boat owners are more likely to fish when they expect higher earnings. However, in contrast to the predictions of neoclassical theory, the study finds a weakly negative relationship between labor participation and recent accumulated earnings. The paper thus provides evidence that the standard neoclassical model of labor supply is statistically rejected, but the fact that the estimated relationship between labor participation and accumulated earnings is only weak suggests that the model is still a good approximation of the labor supply behavior of boat owners in coastal southern India.
http://documents.worldbank.org/curated/en/578211473778304841/Are-labor-supply-decisions-consistent-with-neoclassical-preferences-evidence-from-Indian-boat-owners

III "FYI": Our eclectic guide to recent research of interest

Using community information to identify high ability entrepreneurs
Reshmaan Hussam, **Natalia Rigol**, and **Benjamin Roth** study whether community information can be used to identify high growth entrepreneurs. The authors conducted a randomized experiment with 1,380 households in India that operated at least one microenterprise. These households were organized into groups of five based on geographic proximity. The groups were then invited to an event where they were asked to rank other group members on various metrics of business growth potential (such as profits and marginal return to capital), borrower reliability (probability of a late payment or default), and other key firm characteristics. The event also featured a lottery, where one third of the households were randomly selected to receive a US$100 cash grant (corresponding to about 1.5 months of average business profits). The authors rely on this random assignment and data from a follow-up survey to measure households’ marginal returns to capital. Regressions with interaction terms

show that households with higher group member rankings have higher returns to capital, suggesting that community members are able to identify high return entrepreneurs. The authors cross-randomized a number of additional treatments to shed more light on the usefulness of community information. Results show that households distort their ranking of themselves, family members, and close friends when they are told that their information will influence the distribution of grants, limiting the usefulness of these rankings. However, the accuracy of rankings improves again if households are either given monetary incentives for truthfulness of the responses or if they are asked to rank their peers in public instead of behind a privacy screen.
http://economics.mit.edu/files/12344

Exporting and firm performance: Evidence from a randomized experiment
David Atkin, **Amit Khandelwal**, and **Adam Osman** report on a unique experiment in Egypt that generates exogenous variation in the access to foreign markets for rug manufacturers. This setup allows the authors to causally identify the impact of exporting on firm performance, which they find to be highly positive and significant – treated firms report 16-26 percent higher profits and improvements in quality standards over the control group. Further, the analysis finds evidence for learning-by-exporting whereby exporting firms improve their productivity and quality assurance processes. Finally, the paper documents knowledge flowing between foreign buyers, the intermediary, and the producers, with quality increasing most along the specific dimensions that the knowledge pertained to. Taken together, these results provide strong evidence that performance improvements are achieved through learning and knowledge transfers from foreign buyers. From a policy perspective, these effects would not be replicable, for example, by enhancing firms' access to domestic markets.
http://www.nber.org/papers/w20690

Informal firms and Tanzania's economic transformation
Tanzania's labor productivity has been growing at 4% per year over the past 12 years, which is representative of African countries' growth trends over the past decade. What are the roles played by informal micro and small firms in this fast growth? This is a pertinent question because the informal sector accounts for 55% of Sub-Saharan Africa's GDP and 80% of its employment. Yet, due to a lack of comprehensive nationally representative firm level data, we know little about how informal firms contribute to development in Africa. **Xinshen Diao**, **Josaphat Kweka**, and **Margaret McMillan** use a nationally representative firm level survey of micro, small and medium sized enterprises in Tanzania, along with other data sources, to address that question. They find that the vast majority of the employment growth over this period came from the informal sector. Of the four-percentage point annual gain in labor productivity, firms in the informal sector contributed about half a percentage point.

But the vast majority of informal firms did not contribute to this productivity growth; rather, it originated almost completely from a small subset of in-between firms. These were in between the modern and the informal sectors, but operationalized as informal firms, that had an average annual labor productivity level higher than the economy-wide labor productivity level in manufacturing or trade services. Such in-between firms tended to keep written accounts and hold their savings in formal bank accounts. The results underscore the enormous heterogeneity among informal firms, and the potential for targeting key observable firm characteristics to obtain maximum growth from the informal sector.
http://www.nber.org/papers/w22889.pdf

The natural resource curse and Japan's successful first industrialization
The resource curse is a perennial topic in development research, meaning that countries with abundant natural resources tend to develop and grow at a slower pace than others. **Randall Morck** and **Masao Nakamura** team up again to examine how Japan successfully used natural resources to finance its first industrialization in the five decades from the 1870s to the 1920s. And yes, Japan was a resource-rich country in that period. It was the world's second largest coal producer behind the U.S., for instance. Spurred to action after American gunboats arrived and revealed its technological and military disadvantage, Japan followed a big-push strategy to develop all key complementary industries at the same time, in the spirit of Rosenstein and Rodan (1943). Specifically, the government set up at least one key state-owned enterprise (SOE) for each important industry and used earnings from natural-resource SOEs to finance the rest, which tended to make losses. However, SOEs quickly became loss-making across the board due to soft budget constraints (or the lack of budget constraints) and a host of other issues. The government then initiated its first "shock therapy" program to privatize almost all SOEs, and in the process Zaibatsus emerged. These were family-centered, pyramidal business groups wherein a key family firm controlled a number of other firms, which in turn might control other firms. These Zaibatsus formed mini-economies in which each of them had firms in all related key industries. The key firms then served as the "big-push" coordinators, tunneling the earnings from the resource-rich (and occasionally other high earning) subsidiaries to the rest of the subsidiaries within the Zaibatsu to finance their growth and/or birth. After their initial stages of development in the Zaibatsus, these firms often turned to the stock market for equity financing to further their development. Government intervention did not play a pivotal role in that era for several reasons. Firstly, the government did not have substantial resources and privileges to distribute to begin with. Secondly, Zaibatsu officials were very well-paid and thus would have been hard to influence even if resources had been available. Finally, competition between political factions acted as a constraint on government corruption since these factions were often strongly affiliated with specific Zaibatsus. The authors conjecture

that minimal government intervention helps explain the absence of a resource curse for Japan during this era. By the end of the period, Japan was as rich as some of the Western European countries, and had developed mainly through natural resource financing and laissez-faire government, along with the coordinating hand of family Zaibatsus.
http://www.nber.org/papers/w22865.pdf

IV Upcoming events and miscellanea

Calls for papers

The **34th Spring International Conference of the French Finance Association** will be held at the Grenoble IAE Graduate School of Management -University of Grenoble Alpes- in Valence, France, on May 31 - June 2, 2017. Papers in all areas of finance such as corporate finance, financial markets, risk management, banking and insurance will be considered. The conference will feature special workshops on Credit and Systemic Risks; Banking and Financial Regulation; Finance, Ethics and Sustainability; and Agricultural Finance and Insurance. The deadline for submitting a paper is approaching fast – January 31, 2017. More details are posted here.

The Scotiabank Digital Banking Lab at Ivey Business School is launching a new conference, the **Annual Toronto FinTech Conference** in Toronto, Canada, on October 20 - 21, 2017. This conference will be an annual event where scholars in the fields of strategy, entrepreneurship, innovation, organization theory, finance, and economics can discuss their research on the rise, diffusion, and disruptive potential of financial technologies ("FinTech"). Academics will have the opportunity to interact with leaders from financial institutions, FinTech startups, and policymakers working in this fast-moving and dynamic field. The submission deadline is May 29, 2017. Click here to find out more about this new conference and submission guidelines.

Happy reading!

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