WORLD BANK GROUP

Interest Bearing Notes

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A Finance & Private Sector Development Research Newsletter

What's new on our website

Shortening supply chains for fruit and vegetable vendors in Bogota

In a new policy note, our own David McKenzie, together with Leonardo Iacovone, report on the experience of a start-up social enterprise that used technology to shorten the supply chain for fruit and vegetable vendors in Bogota, Colombia. While the impact evaluation of this new service shows some benefits for its users, the enterprise was not able to scale-up its model fast enough to break-even, and eventually closed as a business.

The full paper is available here.

World Bank research

Self-employment and migration

In a new study, our own **David McKenzie**, together with **Samuele Giambra**, compile panel surveys from eight countries to descriptively examine the relationship between migration and self-employment. The main finding from this analysis is that self-employed individuals are less likely to migrate than either wage workers or the unemployed, and that this relationship holds ever after controlling for factors such as age, gender, education, and income. Furthermore, this relationship is stronger for internal migration than international migration, likely reflecting the lower likelihood of working abroad. The paper also reviews seven randomized experiments that increased self-employment and finds that their causal effects on migration are negative but small on average. The paper then offers several reasons for this limited impact, including the finding that many policy attempts to open up job opportunities are, in practice, not that successful. In addition, the causal evidence reviewed in this study does not focus on individuals with high likelihood of migrating, hence the limited impact is not surprising. The authors conclude with the open question of whether self-employment programs could be more successful at reducing internal and international migration if they were explicitly targeted at populations with high likelihood of migration.

Targeting inputs: Experimental evidence from Tanzania

Our own **Xavier Gine** and **Bernardo Ribeiro**, along with **Shreena Patel** and **Ildrim Valley**, study the impact of agricultural input subsidies in a field experiment in Tanzania. Such programs have long been suggested to increase yields in locations with low agricultural investments, yet critics argue that subsidies are expensive and can distort the market. This paper focuses on a government led input subsidy program (ISP) in Tanzania that had two competing goals of efficiency and equity. On the one hand, the policy sought to target individuals with the highest marginal returns to inputs to maximize efficiency. On the other hand, the policy was also focused on targeting the poorest individuals on equity grounds, allowing for a secondary market to restore efficiency gains. These competing goals form the basis of this study's 2x2 experimental design, with the first intervention promoting transparency in the identification of eligible households through village-wide public selection; and the second intervention offering a public lottery for the selection of beneficiaries among eligible households. These interventions are measured against the counterfactual where local committees have full discretion over subsidy allocation. The authors find that the eligibility criteria did target individuals with low landholdings, suggesting that the program effectively selects the poor. In addition, village committees did follow program eligibility criteria when identifying eligible farmers even in the absence of a public meeting. Further, the study finds no evidence of elite capture since none of the new beneficiaries in non-lottery villages were members of the local committee. However, among those eligible, local committees did not target farmers with the highest marginal returns to input, rather better-off farmers that were more likely to report having previously purchased inputs in the marketplace. By contrast, in villages where beneficiary selection was via lottery, the study identifies a secondary market for subsidy vouchers that allowed subsidies to reach the more productive farmers. Ultimately, the output impacts of the ISP on agricultural productivity and welfare are limited, suggesting that resources should be directed at complementary investments, such as improving soil quality and irrigation.

Is short-term debt a substitute or a complement to good governance?

Short-term debt can reduce agency conflicts between firm managers and shareholders by exposing managers to more frequent monitoring by the market, but it's a blunt instrument because it also exposes firms to credit supply shocks and liquidity risk. And indeed, the inability of firms to roll over their debt was one of the key drivers of contagious defaults during the global financial crisis. Using data from over 8000 firms in 23 countries from 2003 to 2007, our former colleagues **Deniz Anginer** and **Asli Demirguc-Kunt**, together with **Mete Tepe** and **Serif Aziz Simsir**, investigate whether internal monitoring through independent boards and stronger shareholder protection can substitute for the external monitoring provided through short-term debt. The idea is that strong investor protection reduces the discretion of firm insiders and allows for more efficient internal monitoring, making that type of governance an effective substitute for short-term debt. Using multiple measures of firm governance based on the quality, independence, and size of corporate boards, the authors confirm their conjectures, finding that governance quality and board independence are negatively related to use of short-term debt in countries with better investor protection. To address concerns about endogeneity, they rely on the insight that investor protection is strongly linked to legal origin (La Porta et al., 1998) showing that the negative relationship between firm governance and short-term debt holds when legal origin is used as an

instrument for investor protection. In robustness checks, they show that similar patterns emerge for other debt measures such as simple leverage ratios.

The large-firm wage premium in developing economies

Larger firms pay higher wages. An extensive literature has studied the large firms wage premium (LFWP), that is, the difference between wages paid by large firms and those paid by small ones, using data from developed countries. **Tristan Reed** and **Trang Thu Tran** offer the first systematic comparison of the LFWP across developing economies, using harmonized income data for 25 countries. The authors establish several stylized facts and discuss policy implications. For example, the LFWP is comparable to the average gap between male and female wages, or two-thirds of the gap between urban and rural wages. The finding that the LFWP is smaller than the urban rural wage gap suggests that average productivity differences across space may be larger than across firms within a location. If true, this would suggest that aggregate productivity may be more responsive to moving factors out of rural and into urban areas, relative to reallocating factors to more productive (larger) firms within cities. Another finding is that the LFWP is declining in national income, possibly because structural frictions (e.g., access to finance, monopoly rents, higher monitoring costs within firms, or worker search costs) are more pronounced in the least developed countries.

Our eclectic guide to recent research of interest

Gender discrimination in small business lending

Across the world, many more men than women have loans from financial intuitions. This pattern can reflect differences in the need for credit, but it can also be driven by gender discrimination. To test for gender discrimination in small business lending, **J. Michelle Brock** and **Ralph De Haas** implemented a lab-in-the-field experiment with 334 loan officers in Turkey. Each loan officer had to evaluate multiple loan applications in which the gender of the applicant had been (randomly) varied by the researchers. Loan officers assessed applications that the researchers' partner bank had received in recent years (with modified names), so that the researchers knew whether the loans were subsequently repaid or not. The results show that approval rates are similar for male and female loan applicants. However, loan officers discriminate against women in an indirect way: officers are 30 percent more likely to require a guarantor when the application comes from a female instead of a male entrepreneur. This discrimination is concentrated among young and inexperienced loan officers and those that display a high gender bias as measured through an implicit association test. Further, the discrimination is concentrated among loans that were repaid in real life, making it potentially costly to the bank. One possible policy to address the observed gender bias would be to set bank-wide or branch-wide goals for lending to women without a guarantor.

Rule of law and female entrepreneurship

Nava Ashraf, **Alexia Delfino**, and **Edward Glaeser** develop a theoretical model to explain why entrepreneurship remains heavily tilted toward males in many countries and why female entrepreneurs

tend to cluster in industries filled with other women. Their key insight is that asymmetries in social power and the prospect of violence may compel women to avoid transacting with men unless courts and civil society can reliably protect them. They provide supporting evidence from cross-country data and a survey of Zambian entrepreneurs. For example, they confirm that female entrepreneurship is especially rare in countries where rule of law is weak, and courts are seen to discriminate against women. Both rule of law and equitable gender norms appear to be important for female entrepreneurship: in countries with neither, only sixteen percent of entrepreneurs are women. Where rule of law is well-established, but gender norms are not equitable, that share rises to eighteen percent, and to twenty-four percent when gender norms are equitable, but rule of law is weak. However, women comprise thirty-six percent of entrepreneurs in countries that have good rule of law and equitable gender norms. Similarly, the tendency of female entrepreneurs to cluster in industries where they cooperate primarily with women (hospitality, food, apparel) is strongest in countries that lack rule of law and equitable gender norms. The Zambian census data also provides support for their theory: women are much less trusting than men overall but become more trusting when local institutions that adjudicate commercial disputes (small claims courts and so-called 'market chiefs') are available to them. In an experimental trust game framed as an opportunity to invest in each other's businesses, the female entrepreneurs were less trusting than men, receiving and extending less investment than males. However, their investment activities picked up when they were randomly assigned access to a market chief (to ensure unbiased judgment if disputes arose).

Economic growth in Sub-Saharan Africa, 1885-2008

Quantitative economic history has made great strides in the past two decades in measuring historical income across regions. A key contributor to this progress is **Stephen Broadberry**, who has teamed up with different researchers to shed light on historical income in diverse parts of the world such as China, Europe, India, and in this recent paper with **Leigh Gardner**, sub-Saharan Africa from 1885 to 2008. Focusing on eight former British colonies, they show that it is possible to use primary sources to construct GDP per capita in various regions in Sub-Saharan Africa. To do so, they use wages, population, prices in various sectors, and they impose parameters such as own-price, cross-price and income elasticities to yield an output level for each sector. They then use their estimates of sectoral outputs to derive GDP per capita. The exercise generates many useful insights. For instance, South Africa's relatively strong performance is of relatively recent making; it wasn't until well into the twentieth century that it surpassed coastal West Africa in terms of GDP per capita. The exercise also shows the critical importance of export growth, commodity prices, diversity of export products, wars and political stability in accounting for economic growth (or contraction). And it further underscores the importance of economic declines for long-term performance: countries that are currently at lower levels of GDP per capita are those have had steeper and/or longer periods of economic decline. Finally, these estimates reveal that African growth in the past two decades is not unprecedented in African history.

State-owned enterprises and entry barriers

Loren Brandt, **Gueorgui Kambourov** and **Kjetil Storesletten** offer evidence that Chinese SOEs tend to erect entry barriers for non-state firms. Up until the mid-1990s, the performance and productivity of manufacturing firms displayed wide variation across Chinese regions. But since the mid-1990s, there has

been strong convergence in productivity, wages, and new firm start-up rates. The authors first construct a model that incorporates a region-specific capital wedge, output wedge, and entry barrier, and then estimate these three types of wedges using Chinese industry census data over time. They find that, among the changes in the three wedges, the reduction in entry barriers due to the SOE reforms is the most important factor behind the regional convergence in China. Based on their simulations, if the only change between 1995 and 2004 had been the estimated change in the entry barrier, the annual rate of convergence would have been 3.5 percent, which would account for more than 92 percent of the overall convergence. They offer further evidence that the size of the state-owned sector in a prefecture in 1995 (roughly the year when the SOE restructuring reform began under Premier Zhu Rongji) explains more than half of the differences in the size of their estimated entry barriers. Moreover, they show that their measure of entry barriers is highly correlated with the World Bank's measure of the costs of starting a business in China reported in "Doing Business in China 2008." They also find that non-SOE firms had lower start-up rates, smaller size, and lower TFP and wages where SOEs were more prevalent. The SOE reform in the late 1990s substantially reduced the presence of SOEs across all regions, thus reducing regional variation in entry barriers and spurring growth, especially in regions with greater initial SOE presence. The SOE reform and privatization in the late 1990s thus greatly facilitated China's greater regional balance and higher growth overall.

Upcoming events and miscellanea

2nd Bank of Italy and Bocconi University Conference on Financial Stability and Regulation

The Bank of Italy and Bocconi University - BAFFI CAREFIN are organizing the second biennial conference on 'Financial Stability and Regulation,' which will take place on March 19-20, 2020 at the headquarters of the Bank of Italy in Rome. Submissions are encouraged on a variety of topics related to financial stability, financial sector regulation and the use of macroprudential policies. Submissions in PDF format should be sent to: financialstabilityconference@bancaditalia.it The deadline for submission is soon, October 31, 2019. The authors of accepted papers will be notified by December 31, 2019. The conference organizers will cover travel and accommodation expenses for presenters from academic institutions.

2020 Georgia State-RFS FinTech Conference

The Department of Finance and the Center for Economic Analysis of Risk (CEAR) in the Robinson College of Business at Georgia State University, together with the Review of Financial Studies will jointly host their second annual conference on 'Current Research in FinTech.' The conference will be held on February 28-29, 2020 at the Buckhead Center of Georgia State University in Atlanta. The submission deadline is November 1, 2019. Selections will be made by January 10, 2020. Authors may choose to submit to the conference program only, or to both the conference and the RFS.

Happy reading!

Your editors Miriam Bruhn (mbruhn@worldbank.org), Bob Cull (rcull@worldbank.org), Colin Xu (lxu1@worldbank.org), and Bilal Zia (bzia@worldbank.org)

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