Interest Bearing Notes **Vol. 19 No. 4**

July 2016

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The next issue of Interest Bearing Notes will appear in September 2016 so please send comments, suggestions (such as your own or others' interesting research), and requests to be added to our distribution list, to Esther Landines (mailto:elandines@worldbank.org) by September 9th.

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

Have RCTs taken over development economics?

The "State of Economics, State of the World" conference was held at the World Bank on June 8-9, 2016. Our own **David McKenzie** had the pleasure of discussing (along with **Martin Ravallion**) **Esther Duflo's** talk on "The Influence of Randomized Controlled Trials on Development Economics Research and on Development Policy." David summarized his comments in a blog post here. He argues that although the use of RCTs has increased dramatically, they still represent a small percentage of all development research. His and Esther's full presentations are posted on the conference website.

II World Bank research

The effect of business groups on trading activity

Business groups, collections of publicly traded companies with substantial amounts of common ownership, often dominate private sector activity in developing countries, but their dealings are typically opaque to outsiders. In a new paper, our own **Alvaro Pedraza** together with **Miguel Leano** shed light on how institutional money managers who are affiliated with such groups affect financial development. Specifically, they analyze how Colombian pension fund administrators (PFAs) who belong to business groups use access to in-house information on the firms in their group in their trading strategies, and they explore the consequences for secondary market activity. Using a unique new data set on PFA trading activity, the authors first match the PFAs with the listed companies that belong to their business group. They then compare future stock performance on trades of affiliated funds with the trades of non-affiliated funds in the same stock. They also compare stock performance on trades by the same PFA in other similar stocks with which they have no affiliation. Their main findings are that PFAs are momentum traders in non-affiliated companies (meaning they follow the market and earn relatively low returns on their trades), but they successfully trade in anticipation of future abnormal returns in affiliated firms. They go on to look at mergers and acquisitions among the PFAs themselves, and find that the trade activity declines and bid-ask spreads widen for stocks in which large shares are owned by the PFAs that are party to the M&A. In all, their results suggests that the threat of informed trading by PFAs affiliated with business groups could have an adverse effect on secondary market liquidity. In that sense, institutional investors, who are often lauded for their contributions to market development, may actually inhibit it in environments where unaffiliated investors are reluctant to trade.
http://documents.worldbank.org/curated/en/2016/05/26419593/informed-trading-business-groups-ownership-concentration-market-liquidity

Saving for old age

Our own **Asli Demirguc-Kunt** and **Leora Klapper**, together with **Georgios Panos**, use the Global Findex database to examine how adults save for old age across more than 140 countries around the world. Using a binary indicator for saving for old age, they find saving rates to be fairly low, with an average of only 25% of adults saving for old age, though the average is higher at 35% for OECD countries and the East Asia and Pacific region. Exploring heterogeneity, the paper finds that men are more likely to save for old age, especially in developing countries. In addition, individual

characteristics such as education, bank account ownership, and employment are positively correlated with such savings. Macro-level factors such as trust in the financial system are also good predictors. These findings provide very useful global patterns on how much adults save for retirement and how these patterns vary depending on demographic and socio-economic characteristics.
http://documents.worldbank.org/curated/en/2016/06/26428607/saving-old-age

Financial (dis-)information: evidence from a multi-country audit study
Our own **Xavier Gine**, together with **Rafael Keenan Mazer**, present results from an audit study on the quality of financial advice and information offered by financial institutions to their clients. The study design was replicated in three countries, Ghana, Mexico, and Peru, and involved trained auditors posing as clients and visiting financial institutions to seek advice on credit and savings products. The auditors were randomly assigned four variations in scripts to better understand the factors that influence financial advice. First, the requested loan amount was varied: some auditors requested a loan equivalent to 20% of annual income, while others requested much larger loans equal to 70% of annual income. Second, the client sophistication level was varied through the language used and the level of engagement during visits. Third, in order to test market effects, some auditors stated they had a competing offer from another financial institution. Finally, some auditors were assigned a formal dress code to test whether physical impressions influence the type of advice provided. Their findings are quite stark. The results show that financial advisors at these institutions are very stingy with information on costs and disclose less than a third of the total costs involved voluntarily. In addition, clients are rarely offered the cheapest product and are instead lured towards products that earn greater commission. Auditors that appear more experienced in the attributes mentioned above are provided more information than inexperienced auditors. These results highlight severe deficiencies in disclosure and transparency policies, especially the gap between enacted regulation and its enforcement within financial institutions.
http://documents.worldbank.org/curated/en/2016/07/26581590/financial-dis-information-evidence-multi-country-audit-study

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

Using commercial bank data to estimate tax evasion in Greece
Nikolaos Artavanis, **Adair Morse**, and **Margarita Tsoutsoura** develop a new method for estimating tax evasion and its incidence across industries. This method relies on the observation that in semiformal economies, banks lend to tax-evading individuals based on their assessment of individuals' true income. The authors use data from a large Greek bank on applications for household credit products, which includes information on the applicant's after-tax income as reported on their tax

return, as well as a number of other individual and loan characteristics. With this data, the authors replicate the bank's underwriting model to infer the bank's estimate of individuals' true income. Their estimation model requires the assumption that wage workers do not evade taxes, implying that their estimates of tax evasion are only for self-employed individuals. They validate this assumption in a robustness check which uses only wage workers from large private companies, who presumably do not underreport income thanks to third-party reporting and lack of employee-employer collusion. The estimation results suggest that close to 45% of self-employed income goes unreported and thus untaxed. For 2009, this percentage implies 28.2 billion euros of unreported income and foregone tax revenues of over 11 billion euros. These foregone revenues would account for at least 30% of Greece's budget deficit for 2009. The results also show that tax evasion is higher in industries that tend to lack a paper trail, mainly professional services with cash income, such as medicine, law, engineering, education, and the media.
http://www.nber.org/papers/w21552

On the impact of corporate taxes on employment and income
Do corporate tax increases destroy jobs? And do corporate tax cuts boost employment? **Alexander Ljungqvist** and **Michael Smolyansky** tackle these questions by studying corporate income tax changes in the US, going back to 1969. Their data includes 140 tax increases and 131 tax cuts in 45 states. These tax changes are staggered in time across states such that in any given year, some states are "treated" with a tax change while others are not, allowing the authors to implement a difference-in-differences estimation. They further refine their estimation strategy by comparing only the outcomes of contiguous counties located on either side of a state border, with a total of 943 treatment counties and 978 control counties in their sample. The results show that the effect of corporate tax changes is asymmetric: tax increases hurt employment and income in treated counties whereas tax cuts have little effect. The point estimates suggest that a one percentage-point increase in the top marginal corporate income tax rate reduces employment by between 0.3% and 0.5% and income by between 0.3% and 0.6%. These estimates vary little over the business cycle and are remarkably stable across counties with different characteristics, such as labor market flexibility, wealth, population density, or the prevalence of small businesses. While the authors find that tax increases are uniformly harmful, they conclude that tax cuts have, in general, no significant effect on either employment or income. The one exception is when tax cuts are implemented during a recession. In this case, tax cuts lead to sizeable increases in both employment and income.
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2728614

Regulation and structural change in financial systems
A new paper by **Stijn Claessens** discusses recent evidence on regulation and

structural change in financial systems. Stijn points out that financial structures in advanced economies have recently changed to become more integrated, i.e. the interactions and complementarities between banking and capital markets have increased, fueled for example by innovations in information technology and data processing. Stijn also highlights new research that suggests that the marginal contribution of banks to economic growth declines as economics develop, while that of equity markets increases. That is, many advanced countries need greater capital market development to support new sources of growth and innovation. These changes pose new challenges as regulators face increasingly complex systems with different sources of systemic risks. Recent regulatory responses have been to move away from structure and conduct rules, with few or no entry barriers and limitations on financial products and services left. In its place has come a greater focus on self-regulation, with more disclosure and related market-based discipline. Regulation now tends to mandate greater reliance on fair value accounting and places greater emphasis on capital requirements than before. While these micro-prudential regulations aim to increase buffers in banks, they have been argued to lead to more pro-cyclicality. The trend now is to extend these regulations to non-bank institutions, such as insurance companies and mutual funds, which Stijn argues is not necessarily optimal. He argues that there is a need for more macro-prudential policies for both banks and non-banks, including state-contingent policies. He suggests collecting more data to inform these policies, for example through surveys that ask senior lending and credit officers, as well as assets managers, conditional questions. Stijn also points out that financial stability reports and stress-tests should be system-wide to cover bank- and market-based financial activities. In addition, many countries may have to revisit regulatory structures and to assure more cooperation among agencies.
https://www.ecbforum.eu/send_file.php?did=006f52e9102a8d3be2fe5614f42ba989&ff=YmluX3BhcGVyX3BkZg==&fd=dGl0dWxvX2Vu&tid=YXJ0aWdvcw==&pf=UEFQRVJf

How best to win hearts and minds?

Intervention by stronger countries in the affairs of weaker ones is common throughout history, but the form that it takes is likely to affect development outcomes. Heavy handed approaches such as military intervention might be easy to implement, but they exact large monetary and human costs. Grassroots approaches that engage local people in development projects might be harder to implement, but could be more effective over the long haul. **Melissa Dell** and **Pablo Querubin** offer a novel method to obtain causal estimates of the effects of both approaches in a specific context. They exploit the fact that in the Viet Nam war, the U.S. used a quantitative approach to determine where to bomb. In particular, it used a numerical criterion such that those places to one side of the threshold were bombed while those to the other side were not. They then instrument for bombing with a variable indicating that a region was just below the threshold to obtain estimates of the causal effects of bombing on post-bombing outcomes. They find that bombing caused substantially greater presence of Viet Cong (VC) guerrilla squads (a 27 percentage point increase in likelihood), along with weakening in both local governance (i.e., village committee positions unfilled) and non-communist civil society (i.e., reduced access to primary schools and participation in civic organizations). They also compare neighboring regions in which two different strategies were adopted: bombing versus embedding soldiers in communities in an effort to win hearts and minds via development programs. Again relying on a regression discontinuity design, the hearts-and-minds regions are found to subsequently have fewer VC attacks and less VC presence, more public goods provision, and more positive attitudes toward the U.S. This important and careful paper thus suggests that nation building through bombing is not likely to work. http://www.nber.org/papers/w22395.pdf

Tourism and economic development

Tourism allows the export of otherwise non-tradable local services and amenities by moving consumers across space, and as such, it facilitates service trade flows. It therefore has become an increasingly important channel of global integration for developing countries. Some governments and international organizations have been advocating the promotion of tourism to foster local economic development in economically lagging regions within countries. Others question whether such developments merely benefit the elite and develop services at the expenses of manufacturing. **Benjamin Farber** and **Cecile Gaubert** combine a collection of Mexican microdata with a quantitative spatial equilibrium model and a new empirical strategy to examine the long-run economic consequences of tourism in a developing country, and the channels underlying these effects. They first estimate a series of reduced-form effects on local economic outcomes (such as total employment, GDP, and average wage levels) in today's cross-section of Mexican municipalities. To ensure that these estimates hinge only on plausibly exogenous variation in long-term exposure to tourism, they exploit geological and oceanographic variation in beach quality along the Mexican coastline to construct instrumental variables, and they conduct falsification tests to show that those instruments are valid. To obtain an estimate of the aggregate effects of tourism, they construct a spatial equilibrium model of trade in goods and tourism services, and use the reduced-form moments to aid its calibration for counterfactual analysis. Their exercise suggests that tourism causes large and significant local economic gains, and that these gains are partly due to significant positive spillovers (from service sectors) on manufacturing production: a 10 percent increase in local tourism revenues leads to a 3.2 percent increase in local manufacturing GDP. In the aggregate, however, these local spillovers are largely offset by reductions in agglomeration economies in less touristic regions, and thus the aggregate gains from tourism are driven mainly by market expansion.

http://www.nber.org/papers/w22300.pdf

IV Upcoming events and miscellanea

Calls for papers

The Bank of Italy is holding a workshop on **"Understanding the roots of productivity dynamics"** in Rome on December 19 and 20, 2016. This workshop will focus on theoretical, empirical and methodological papers that contribute to the understanding of the microeconomic channels affecting productivity dynamics, and hence growth, with a particular attention to policy implications. The deadline for submitting a paper is September 15, 2016. More details are posted here.

The **7th Behavioral Finance Conference** will be held at the University of Miami in Coral Gables, Florida, December 7-9, 2016. The conference is sponsored by the Department of Finance at the University of Miami and the *Review of Financial Studies* (RFS). Richard Roll from UCLA Anderson will be the keynote speaker. Papers from all areas of behavioral finance and economics will be considered. Researchers from other related disciplines such as experimental finance and neuro-finance are encouraged to submit a paper. The submission deadline is just around the corner (August 15th), while the registration deadline is October 15th for those interested in attending.
http://bus.miami.edu/umbfc/

Happy reading!

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