September 2018

MACRO RESEARCH FOR DEVELOPMENT
An IMF-DFID Collaboration

INTERNATIONAL MONETARY FUND

Department for International Development

Modernizing Monetary Policy Frameworks

The IMF-DFID team continues its collaboration with selected central banks in sub-Saharan Africa and respective IMF country teams in their efforts to modernize the practice and analysis of monetary policy, mainstreaming ongoing research and drawing on the experience in other countries. As part of this initiative, the IMF organized a customized training mission on modelling and forecasting to Tanzania in July 2018. Yaroslav Hul assisted the forecasting team in the Bank of Tanzania (BoT) to further develop its quarterly projection model (which captures the authorities' view of the monetary transmission mechanism and of the shocks hitting the economy). Furthermore, the mission launched a training to assist BoT in modernizing its monetary policy communication function, in line with best practices in emerging economies. As part of this process, the mission (i) assessed the present communications strategy at the BoT, as well as the tools and techniques employed by the BoT to communicate on monetary policy to external stakeholders, and (ii) identified the changes necessary in the BoT's communication strategy and practices to support an orderly transition to the interest rate-based monetary policy framework.

Financial Inclusion: Rwanda

IMF staff visited Kigali, Rwanda, in July 2018, as part of the DFID-funded research collaboration between the IMF and the National Bank of Rwanda. During the visit, Andrea Presbitero taught a three-day course on "Methods and Tools for Micro-Applied Economics: Topics in Financial Intermediation" and presented and discussed the findings of the paper "Financial inclusion under the microscope." The study evaluates the effect of a government-sponsored program to expand the outreach of the banking system through the establishment of a dense network of credit cooperatives. Results indicate that the program has increased access to credit by previously unbanked individuals. They also show that commercial banks reacted to the set-up of the new SACCOs by expanding their lending, targeting individuals who, thanks to the program, were able to build credit history.

Commodity Prices and Banking Crises

Since 2014, in association with low commodity prices, an increasing number of low-income countries (LICs) have been experiencing financial sector stress. Markus Eberhardt and Andrea Presbitero develop an empirical model to predict banking crises in a sample of 60 LICs over the 1981-2015 period. The analysis indicates that commodity prices are a key element to design an early warning system for LICs, as accounting for changes in commodity prices significantly increases the predictive power of the model. The commodity price effect is economically substantial and robust to the inclusion of a wide array of potential drivers of banking crises. Results confirm that net capital inflows increase the likelihood of a crisis; however, in contrast to recent findings for advanced and emerging economies, credit growth and capital flow surges play no significant role in predicting banking crises in LICs.

Gender Inequality: Papers, Peer-Learning Events, and Presentations

Gender equality can play an important role in promoting economic stability by boosting economic productivity and growth, enhancing economic resilience, and reducing income inequality. The Fund has begun operationalizing gender issues in its work, and in June, released a “how-to” note for staff. The note offers an overview of good practices and resources available. The team also contributed to an IMF policy paper on Pursuing Women’s Economic Empowerment in advance of the IMF Managing Director’s participation in the G7 Summit in June.

The team, in coordination with senior and technical level staff from the IMF’s African Department and UN Women, held a three-day peer learning event on gender equality in Dar es Salaam on June 4-6, 2018. Topics included IMF analytical work on the relationship between gender inequality and macroeconomic outcomes, gender budgeting, and policy priorities. The participants also explored ideas for future collaboration opportunities between the IMF and UN Women. After the workshop concluded, the team then conducted a one-day workshop on gender inequality research with staff from UN Economic Commission for Africa in Addis Ababa.

The IMF East Africa Regional Technical Assistance Center held a three-day training session on “Understanding Gender Responsive Budgeting” in Arusha in August, and Lisa Kolovich presented on recent analytical work on gender inequality and gender budgeting. Twenty-six participants from ministries of finance, budget offices, and ministries of gender attended.

In July, Lisa Kolovich participated in a panel discussion on gender inequality and the future of work as part of the “Voyage to Indonesia” series of seminars leading up to the IMF Annual Meetings in Bali in October.

Income Inequality How-to Note

Economic inclusion is a high priority issue for the IMF. High inequality is negatively associated with macroeconomic stability and sustainable growth—core to the Fund’s mandate in promoting systemic, balance of payments, and domestic stability. Some macroeconomic policies and reforms may have adverse distributional implications, which in turn can undermine public support for reforms. And, interest in distributional issues and inequality has grown among the membership, increasing the demand for the Fund to work in these areas. This note provides an overview of good practices and resources available to staff. It provides examples of good practices with respect to coverage of inequality-related issues in country reports and lays out the resources available to country teams, both with respect to existing analytical work as well as the availability of data and tools.

2018 Annual Meeting of the Society for Economic Dynamics

Xin Tang presented a paper on *The Macroeconomic and Distributional Implications of Fiscal Consolidations in Low-income countries* in the session on Fiscal Policy with Heterogeneous Agents at the 2018 Annual Meeting of the Society for Economic Dynamics. The paper was also published as IMF working paper in June. The paper investigates quantitatively how various tax instruments would affect macro aggregates and the allocation of economic resources differentially in an environment that closely resembles that of low-income countries. The analysis reveals that the trade-offs of the tax instruments when applied to low-income countries indeed differ from those when applied to developed countries.

Losing to Blackouts: Evidence from Firm Level Data

Many developing economies are often hit by electricity crises either because of supply constraints or lacking in broader energy market reforms. Dan Gurara and Dawit Tessema use manufacturing firm census data from Ethiopia to identify productivity losses attributable to power disruptions. Their estimates show that these disruptions, on average, result in productivity losses of about 4–10 percent. The authors found nonlinear productivity losses at different quantiles along the productivity distribution. Firms at higher quantiles faced higher losses compared to firms around the median, and there were observed patterns of systematic shutdowns as firms attempt to minimize losses.

Dawit Tessema presented this paper at the AEL2018 organized by the German Economic Association Research Group on Development Economics.

Climate Change and Macroeconomic Outcomes in LICs

Alessandro Cantelmo presented a preliminary version of *Climate Change and Macroeconomic Outcomes in Low-Income Countries* at the 24th Computing in Economics and Finance International Conference organized by The Society for Computational Economics in the session on Advances in the Economics of Climate Change. The paper studies the macroeconomic and public debt sustainability performance of low income countries prone to natural disasters and climate change, relative to their non-disaster-prone peers. Using a DSGE model which allows for large non-linearities implied by disaster and risk shocks related to climate change, the authors highlight the negative implications of natural disasters and climate change on low income countries.

For more information, please contact MacroResDev@imf.org or visit the IMF-DFID Macroeconomic Research for Development website.