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MACRO RESEARCH FOR DEVELOPMENT
An IMF-FCDO Collaboration

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Climate Change and Macro-Financial Policies Workshops

The workshops on climate change and macro-financial policies were delivered in Côte d'Ivoire and in Nigeria to 98 participants from 24 countries. These were organized jointly by the African Training Institute (ATI) of the Institute of Capacity Development (ICD) and AFW1/AFC and AFW2, respectively. In Côte d'Ivoire, 50 participants (including 16 women) from 18 countries, including 10 fragile states, attended. Similarly, the workshop in Nigeria attracted 48 participants (18 women) from 6 countries, including one fragile state.

Covering a spectrum of topics such as climate risks and vulnerabilities, mitigation and adaptation policies, financial sector implications, fiscal risks, and tools such as Debt, Investment, Growth, and Natural Disasters (DIGNAD), Public Debt Dynamics Tool with Natural Disasters (DDT-ND), Green Public Financial Management, and Climate-Public Investment Management Assessment (C-PIMA), these workshops provided a comprehensive overview of the IMF's capacity development in climate-related tools. Participants gained insights into macro-financial linkages and learned how the IMF can support member countries. Participants emphasized how the workshops enhanced their ability to integrate climate considerations into policy analysis, emphasizing it was their first exposure to the macroeconomic and financial dimensions of climate issues presented in such a structured manner. Participants, eager to delve deeper into the training on the presented tools, highlighted the workshop's usefulness, especially in the context of ongoing Resilience and Sustainability Trust (RST) negotiations.

These workshops, including the previous sessions in Kenya by ATI/AFE in March 2023 and in South Africa by ATI/AFS in June 2023 have collectively drawn 156 officials from across Sub-Saharan Africa. Azar Sultanov, from the Research Department (RES) delivered sessions on the DIGNAD model and the toolkit.

Fiscal Imprudence and Inflation Expectations: The Role of Monetary Policy Frameworks

In Box 2.2 of Chapter 2 in the October 2023 World Economic Outlook, Omer Faruk Akbal, Mariarosaria Comunale, Marina Conesa Martinez, Chris Papageorgiou, and Filiz D. Unsal present evidence that higher public debt is associated with expectations of higher inflation, contingent on a specific monetary policy framework. This framework utilizes a newly developed index, IAPOC, authored by Unsal, Papageorgiou, and Garbers (2022).

The impact becomes even more evident when focusing on the stock of public debt in foreign currency, and it intensifies when fiscal deficits persist. In general, the study suggests that the challenges posed by higher public debt levels in managing inflation expectations in emerging market and developing economies could be eased by adopting a strong monetary policy framework.

Course on Debt, Investment, Growth, and Natural Disasters (DIGNAD) model

As part of the IMF's Internal Economics Training (IET) program, Azar Sultanov (RES) and Ha Nguyen (ICD) delivered a course titled "Debt, Investment, Growth, and Natural Disasters (DIGNAD): User's Guide to the Model and Toolkit". DIGNAD has emerged as a pivotal model within the IMF, serving to analyze the impact of climate risk resulting from natural disasters and exploring how investments in adaptation infrastructure can effectively mitigate these risks in developing low-income countries and emerging markets.

The DIGNAD toolkit was subsequently developed as part of this initiative to simplify the use of the DIGNAD model. It was designed for economists with little to no knowledge of Matlab and Dynare, offering a user-friendly Excel-based interface to facilitate the development of tailored analyses regarding the macro-fiscal impacts of natural disasters and investments in resilience.

The hybrid half-day course, conducted on November 2, covered the model itself, examples of past applications, and concluded with a hands-on session on utilizing the toolkit. Participants found the course highly beneficial, praising its flexible presentation style, practical demonstrations, and responsiveness to questions.

Regional Workshop on Gender and Inclusion

In collaboration with the Middle East Regional Technical Assistance Center, the Strategy, Policy and Review (SPR) Department of the IMF organized a regional workshop on gender and inclusion. Led by Alejandro Badel, Jiajia Gu, and Lisa Kolovich, the workshop took place in Jordan from November 7th to 9th.

The course provided insights into utilizing tools from the IMF to quantify the macroeconomic costs of gender gaps and barriers. Participants were introduced to the model-based inequality toolkit, specifically the Multisector Incomplete Markets Macro Inequality (MIMMI) App. The workshop also covered the identification of macrocritical gender gaps, the design of tailored policy responses to close these gaps, and key concepts related to disparities more broadly and policies addressing them.

Invitations were sent out to ministries of finance and central banks of middle- and low-income countries in the region. Representatives from the United Nations Population Fund (UNFPA) and the Jordanian National Commission for Women also participated. Early feedback indicates that hands-on learning opportunities, active engagement from attendees, and numerous stimulating interactions are keys to the course's success.

The Global Distribution of Gains from Globalization

As global interpersonal inequality increasingly stems from disparities within countries, with the role of inequality between countries diminishing, questions arise about the role of globalization in this shift. Published in The Journal of Economic Inequality, this paper utilizes comprehensive global panel data at the country-decile-group level for the past half century.

It leverages the geographical diffusion of liberalization policies to discern the impact of globalization.

Across countries, authors Valentin Lang and Marina Tavares find that income gains are substantial for countries at early stages of the globalization process. However, they observe that the 'marginal returns to globalization' diminish as globalization advances, eventually becoming insignificant for the most globalized countries. Within countries, the gains from globalization are most pronounced for the wealthiest ten percent of national income distributions, leading to significant increases in national income inequalities. A simple quantitative model aligns with these empirical findings. Over the past half century, globalization has propelled a dual trend of income convergence across countries and income divergence within countries.

Market Reforms and Public Debt Dynamics in Emerging Market and Developing Economies

In September 2023, the Staff Discussion Note (SDN) titled 'Market Reforms and Public Debt Dynamics in Emerging Market and Developing Economies was published. This release was complemented by a blog and a private roundtable hosted by the Center for Global Development.

The SDN delves into the challenging trade-off between economic support and fiscal sustainability encountered by many emerging market and developing economies (EMDEs) and low-income countries (LICs). Market-oriented structural reforms alleviate this trade-off by fostering economic growth and by strengthening public finances. The empirical analysis in this note, covering 62 EMDEs from 1973 to 2014 (including 18 LICs), reveals that reforms are linked to substantial and enduring reductions in the debt-to-GDP ratio. This is primarily achieved through increased fiscal revenues and decreased borrowing costs. These effects are more pronounced in countries with greater tax efficiency, lower informality, and higher initial debt.

Furthermore, a model-based analysis expounds on how such fiscal gains can be optimized when revenue windfalls associated with reforms are either saved or directed toward higher public investment.

Social Unrests and Fuel Prices: The Role of Macroeconomic, Social, and Institutional Factors

This paper explores the impact of fuel price increases on social unrests, examining the macroeconomic, social, and institutional factors influencing this relationship. Using the IV fixed-effect estimator on a sample of 101 developing countries from 2001 to 2020, the authors (Alassane Drabo, Kodjovi Eklou, Patrick Iman, and Kangni Kpodar) discover a positive association between changes in fuel prices and the occurrence of social unrests, particularly anti-government demonstrations.

This impact is particularly pronounced: (i) during economic downturns and periods of high exchange rate instability; (ii) when government spending is low, especially in health and education; (iii) in countries characterized by high income inequality, low institutional quality, and a high level of corruption.

The results are robust to a battery of tests. In general, the findings of the paper provide support to the grievance and deprivation theory in explaining the association between fuel price increases and social unrests. Notably, the paper does not find evidence supporting the resource theory and the theory of political opportunities.

Financial Stress and Economic Activity: Evidence from a New Worldwide Index

This new paper employs text analysis to construct a continuous Financial Stress Index (FSI) covering 110 countries each quarter from 1967 to 2018. The new indicator has a larger country and time coverage and higher frequency than similar measures focusing on advanced economies. It complements existing binary chronologies in that it can assess the severity of financial crises.

The authors (Hites Ahir, Giovanni Dell'Ariccia, Davide Furceri, Chris Papageorgiou, and Hanbo Qi) use this indicator to assess the impact of financial stress on the economy, utilizing both country- and firm-level data. Key findings include: i) in alignment with existing literature, a significant and persistent relationship between financial stress and output is demonstrated; ii) the effect is larger in emerging markets and low-income countries; and (iii) the impact intensifies with higher levels of financial stress.

Monetary Policy Design with Recurrent Climate Shocks

As climate change intensifies, the frequency and intensity of climate-induced disasters are expected to rise. In this working paper, Engin Kara and Vimal Takoor present a New Keynesian Dynamic Stochastic General Equilibrium model to assess the impact of these events on monetary policy. The model conceptualizes these disasters as left-tail productivity shocks with a quantified likelihood, resulting in a skewed distribution of outcomes. This creates a significant challenge for central banks, necessitating a balance between heightened inflation risks and diminished output. The findings suggest a modification to the Taylor rule, advocating for equal consideration of responses to both inflation and output growth. This adjustment implies a gradual approach to addressing economic fluctuations exacerbated by climate change.

On September 18th, the authors shared the methodology and results of their working paper during a Climate and Development Seminar with internal staff at the IMF.

When Will Global Gender Gaps Close?

In this working paper, Alejandro Badel and Rishi Goyal delve into the dynamics of the cross-country distribution of gender gaps in labor force participation. Their findings suggest that if the observed dynamics of the last three decades persist into the future, the global distribution of national gender gaps will increasingly concentrate around lower values. However, in the long run, a majority of countries are projected to still face elevated gender gaps of 20 percent or more.

The paper underscores that developing and low-income countries are not singularly responsible for this trend. Ongoing shocks and setbacks in gender gaps affect emerging markets and advanced economies alike. This highlights the need for bold and strategic policy actions on a global scale to address and close gender gaps.

The paper has received an invitation to publish a concise, nontechnical version on the VOXEU blog. Additionally, it is currently under review for publication in an academic journal.

A Monetary Policy Framework for Low Income Countries

Advancements on this paper were presented on October 11th during an Analytical Corner session at the 2023 IMF Annual Meetings. The paper introduces an Open Economy with Heterogenous Agents model, incorporating features essential for low-income countries (LICs): i) impoverished households with limited market access (hand-to-mouth), and ii) a subsistence level of consumption for tradable goods. The team, composed by Carlos van Hombeeck, Juan Passadore, and Filiz Unsal, analyze the effects of an external price shock on macroeconomic variables, inequality, and poverty within an average LIC.

The shock triggers a consumption-led recession, an increase in inflation, and a decline in real wages. Inequality amplifies as poor households lack insurance against the shock, while wealthier households exploit their financial resilience. Households at the bottom and at the top of the income distribution bear the impact of the shock, experiencing lower wages and consumption for the former and a negative revaluation of assets for the latter. The paper finds that monetary policy is a less potent tool in addressing these shocks due to a nuanced interplay: a decrease in labor demand is offset by lower real wages, resulting in minimal effects on how the shock influences workers' earnings across the income distribution.

The forthcoming paper also encompasses extensive background work, emphasizing LIC's reliance on food imports to calibrate subsistence within the model.

Global Price Shocks and Welfare in a Spatial Model of Low-Income Countries

Christopher Adams and Lisa Martin presented their soon-to-be-published working paper on Global Price Shocks and Welfare in a Spatial Model of Low-Income Countries during a seminar on October 18th. This paper delves into the repercussions of global price shocks on a small, open agricultural economy. It scrutinizes the transmission of simultaneous shocks to food, fuel, and fertilizer prices that impacted the global economy in 2021 and 2022.

Utilizing a spatial dynamic general equilibrium model calibrated to Tanzanian data, the study explores how these shocks impact consumption patterns among heterogeneous households in various regions. Factors such as domestic production, internal trade, and labor movements are considered within the model structure. The paper allows for the exploration of different fiscal and fiscal financing strategies, including price subsidies and net household transfers, aimed at mitigating the adverse effects of global price shocks.

The paper unfolds in three stages: First, it describes how the pass-through from external price shocks to domestic food and general prices varies across locations. Next, it examines alternative fiscal mitigation measures, which may be partially financed by increased external grants. Finally, the model expands to consider the scenario where the price shocks are transitory, private agents face adjustment costs, and the government's fiscal instruments include access to domestic debt financing.

Countries That Close Gender Gaps See Substantial Growth Returns

On September 27, Alejandro Badel, Antoinette Sayeh, and Rishi Goyal published an [IMF blog post] showcasing some of the impactful work by the Inclusion and Gender Unit of the Strategy, Policy and Review Department (SPR) in mainstreaming gender issues at the IMF.

The blog highlights that while empowering women economically is a powerful engine of inclusive growth, countries need to step up their efforts to rip the benefits. The findings draw heavily from "When Will Global Gender Gaps Close?" and "IMF Strategy Toward Mainstreaming Gender". Both had greatly benefited from contributions from the Macro-Research for Low Income Countries program.