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MACRO RESEARCH FOR DEVELOPMENT
An IMF-FCDO Collaboration



Climate Action in South Asian Economies

The Research Department and the Strategy and Policy Review Department funded a series of high-level seminars, policy dialogues, and peer learning events on Climate Action in South Asian Economies. These successful events were organized thanks to a collaborative effort from three—Asia and Pacific, Research, and Institute for Capacity Development—IMF departments and hosted by IMF SARTTAC and the Center for Social and Economic Progress in New Delhi on July 20. Keynote addresses were given by Bo Li (Deputy Managing Director, IMF), Krishna Srinivasan (Director, Asia and Pacific Department, IMF), Vitor Gaspar (Director, Fiscal Affairs Department, IMF), Antonio Spilimbergo (Deputy Director, Research Department, IMF), Anantha Nageswaran (Chief Economic Advisor, Government of India), Rajeshwa Rao (Deputy Governor, Reserve Bank of India), Abdur Rouf Talukder (Governor, Bangladesh Bank), Professor Lord Nicholas Stern (Chair of the Centre for Climate Change Economics and Policy and IG Patel Professor of Economics and Government at the London School of Economics), among others.

The peer learning event aimed at strengthening the policy dialogue on how to mainstream climate action in macroeconomic management, while considering the challenges faced by countries in the region, including low-income countries Maldives and Nepal. The event discussed how the IMF has been incorporating climate throughout all the branches of its work, whether related to country surveillance, capacity development or research, and how countries in the region are developing their climate strategies. Two technical sessions were conducted, giving participants hands-on experience with a set of tools developed by the IMF, (i) using the DIGNAD to assess how ex ante adaptation infrastructure helps manage natural disaster risk and better ensure debt sustainability and (ii) using the Natural Disasters for the Debt Dynamic Tool to develop baseline and alternative scenarios on debt sustainability in the face of natural disasters.

Presentation of work developed for the 2022 Article IV Mission to Guinea

On July 18, 2023, Alejandro Badel helped organize a meeting among key stakeholders, including the Inter-American Development Bank, World Bank, US Department of Commerce, representatives from the lithium mining industry, and Argentine mining authorities. During this session, Badel presented an FCDO-sponsored research project, which was developed as part of the 2022 Article IV Mission to Guinea. This presentation underscored the IMF's role in assisting low-income countries in optimizing the collection and allocation of revenues derived from extractive industries.

This discussion highlighted the importance of maximizing the economic benefits of natural resources. The thoughtful

questions raised by industry and government representatives during Badel's presentation clearly reflected a common interest in the responsible and strategic management of extractive industry revenues.

Presentation on work developed on mining revenues and sustainable growth

On August 2, 2023, Alejandro Badel delivered a presentation during a mini-conference attended by representatives from the World Bank, IMF's Inclusion and Gender Unit, and the mining industry. The presentation was based on an FCDO-sponsored research project co-authored by Alejandro Badel and Rachel Fredman Lyngas. The talk discussed a key issue from the research titled "[Mining Revenues and Inclusive Development in Guinea](#)": the influence of government investments in education and infrastructure in directing mining revenues toward sustainable growth and poverty alleviation. The talk also discussed preliminary results from ongoing work by Alejandro Badel and Aristide Medeon on the macro-inequality impact of the Simandou project, a large mining project in Guinea. This research aims to guide the allocation of increased government revenues from the project.

The work covered by the presentation is part of the IMF's efforts to assist low-income countries in optimizing the management and utilization of extractive industry revenues for broader socioeconomic development. It also reflects the collaborative efforts of diverse stakeholders to achieve gender-balanced and inclusive growth, particularly in resource-rich economies.

Panel Nowcasting for Countries Whose Quarterly GDPs are Unavailable

Prepared by Omer Faruk Akbal, Seung Mo Choi, Futoshi Narita, and Jiaxiong Yao, this [working paper](#) addresses a significant challenge. While quarterly GDP statistics are essential for timely economic assessments, they are notably scarce for over 60 developing economies, including approximately 20 countries in sub-Saharan Africa, as well as more than two-thirds of fragile and conflict-affected states. In response to this data scarcity, the paper introduces a panel approach that leverages a statistical relationship derived from countries with available data. This approach aims to estimate quarterly GDP statistics for nations that do not routinely publish such data, utilizing readily available indicators common to many countries. This innovative framework demonstrates substantial potential, particularly when applied to similar country groups, offering the promise of supplying valuable real-time insights into economic conditions, underpinned by empirical evidence.

Policy Distortions and Aggregate Productivity with Endogenous Establishment-level Productivity

What drives variations in income and total factor productivity (TFP) among nations? In their recently [published paper](#), José-María Da-Rocha, Diego Restuccia, and Marina M. Tavares, delve into the intricate relationship between policy distortions and productivity at the establishment level within a general equilibrium framework. Notably, this paper not only provides a closed-form solution to the model but also unveils notable insights.

The findings reveal that policy distortions can precipitate a significant decline in aggregate TFP, with data benchmarks from the United States indicating a staggering reduction of over 24 percent. Furthermore, these distortions ripple through the economy, impacting the average size of establishments and impeding productivity growth. Even more concerning, if these distortions affect the exit rate of incumbent establishments, the aggregate TFP loss can double to a startling 48

percent. This research presents invaluable insights for policymakers and stakeholders concerned with low-income countries, prompting a reevaluation of existing policies that may inadvertently hinder productivity growth and exacerbate income disparities. It represents a crucial stride in comprehending how micro-level distortions can exert macro-level repercussions, ultimately shaping a nation's economic well-being.

Strengthening Monetary Policy Frameworks in the Caucasus and Central Asia

Released on August 28th, this [departmental paper](#) features contributions from Filiz D. Unsal, Mariarosaria Comunale, Marina Conesa Martinez, and Omer Faruk Akbal. It was prepared by Tigran Poghosyan, Klakow Akepanidaworn, Maria Atamanchuk, Ezequiel Cabezon, and Selim Cakir, with research assistance from Vahid Khatami. The paper assesses the monetary policy landscape in the Caucasus and Central Asia (CCA) region, emphasizing challenges in policy design and implementation, and identifying areas which need to be strengthened.

This paper reveals that CCA economies experience volatile inflation rates, primarily due to the substantial share of food and imported goods in the consumption basket and high exchange rate pass-through. The 2022 surge in global food and energy prices, along with persistent supply-chain bottlenecks, underscored the region's vulnerability. Most CCA central banks prioritize price stability as the primary goal of monetary policy, often setting numerical inflation targets. However, despite ongoing improvements in monetary policy frameworks, anchoring inflation expectations remains a persistent challenge for CCA central banks.

Digitalization and Gender Equality in Political Leadership in Sub-Saharan Africa

In this [working paper](#), Diego Gomes and Carine Meyimdjui examine the impact of digitalization on people's perceptions of women as political leaders in 34 Sub-Saharan African countries. The authors find a positive correlation between people's perceptions of women in political leadership positions and digitalization, as measured by internet access and social media use.

Given the importance of digitalization, the paper recommends policy measures aimed at improving information and communications technology (ICT) infrastructure and technological education. These initiatives have the potential to increase the participation of women in political processes and their representation in leadership positions. Such measures represent crucial steps toward advancing gender equality in political leadership. Notably, this research was presented during the 2nd Gender and Economics Workshop organized by the University of Luxembourg.

Natural Disasters and the Cost of Public Debt: An Empirical Assessment

The increasing frequency of extreme weather events in recent decades has profound macroeconomic implications, impacting public finances and driving up debt interest rates. Few studies explore climate shocks' impact on international debt costs, and almost none focus on domestic borrowing expenses. This omission is critical because disasters can limit foreign borrowing, forcing countries to rely heavily on domestic sources, which have become a substantial portion of total public debt in many developing nations. Unlike external debt, domestic debt is challenging to restructure.

This research, to be published, co-authored by Alassane Drabo, Roland Kangni, and Carine Meyimdjui, extends the

literature by examining climate shocks' effects on domestic debt costs. Analyzing sovereign borrowing costs in developing countries (including 45 LICs) from 2000 to 2019, the study finds that climate shocks affect domestic debt costs depending on indicators and maturity. Negative precipitation shocks raise short-term debt costs, while droughts increase short- and medium-term borrowing expenses. The research was presented at three international conferences: The [1st Women in Macroeconomics, Law, and Economics Workshop](#) in Bonn, Germany; The 29th Ulvön Conference on Environmental Economics in Ulvön, Sweden; and [The Macro Development Workshop 2023](#) in Melbourne, Australia.

A Macroeconomic Framework of Climate Adaptation

On June 30, 2023, Gabriela Cugat presented ongoing work on "A Macroeconomic Framework of Climate Adaptation" at the 2023 Annual Meeting of the Society for Economic Dynamics. This joint project with Vu Chau and Filiz Unsal entails the development of a small open economy model aimed at analyzing climate adaptation in developing nations. The model incorporates slow-moving climate risks and allows for endogenous entry and adaptation choices within the climate-vulnerable sector.

The calibrated model, based on an average developing country (including low-income nations), reveals that the optimal approach to incentivize adaptation hinges on the interplay between returns on adaptation and financing constraints. It underscores the necessity of combining private climate action with public sector initiatives to avert widespread output decline. Notably, this paper belongs to a larger team project by three IMF departments—Africa, Institute for Capacity Development and Research—which was winner in the IMF Climate Innovation Challenge. The end goal is to use the model in this paper to create a toolkit for country teams.

The views expressed in this newsletter are those of the contributors and do not necessarily represent the views of the International Monetary Fund (IMF), or UK's Foreign, Commonwealth and Development Office (FCDO). For more information, please contact MacroResDev@imf.org or visit the IMF-FCDO Macroeconomic Research for Development [website](#).