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CCAMTAC- Regional Research/Analytical Economic Policy Seminar Series

"A Workhorse DSGE Model of the National Bank of Georgia"

July 4, 2024

Introduction:

Mr. Norbert Funke, Director, CCAMTAC

Moderation:

Mr. Martin Fukac, Resident Advisor, CCAMTAC

Presenters:

Mr. Shalva Mkhatrishvili, Head of Macroeconomics and Statistics Department, National Bank of Georgia

Mr. Lasha Arevadze, Economist, Monetary Policy Department, National Bank of Georgia

Interventions:

Mr. Nurdaulet Abilov, Economist, CCAMTAC

In response to the growing interest among policymakers in building New Keynesian Dynamic Stochastic General Equilibrium (NK DSGE) models in the Caucasus, Central Asia, and Mongolia region, CCAMTAC organized a research seminar dedicated to the workhorse NK DSGE model used at the National Bank of Georgia (NBG). During this seminar, the authors explored innovative features that enhance the traditional NK DSGE model, aligning it with the unique structural characteristics of Georgia.

Mr. Shalva Mkhatrishvili made introductory remarks on the motivation of building a DSGE model for Georgia and how it can be used by policymakers in practice. He also introduced some novel features added into the traditional NK DSGE model with two agents, sticky prices and wages as well as capital and investment adjustment costs. There are three new features in the model: (i) dollar pricing of export and import goods, (ii) trend appreciation of the real exchange rate, and (iii) three-country open economy. These features were carefully chosen to match Georgia's specific economic context and improve the model's ability to generate plausible impulse response functions for key macroeconomic variables. By incorporating these frictions, policymakers gain a more robust tool for analyzing policy implications and understanding the transmission mechanisms of shocks.

Mr. Lasha Arevadze discussed more technical details of the new features of the NK DSGE model for Georgia. First, he explained how dollar pricing in the export market weakens shock absorption capacity of the Georgian economy and how expenditure switching policies work through imports' channel with perfect pass-through of the exchange rate to domestic prices. Second, Mr. Arevadze introduced a three-country open economy model feature and motivated its use by the heterogenous impact of US monetary policy on the rest of the world. Third, he explained the mechanism of incorporating the trend appreciation of the real exchange rate and how it affects the historical decomposition of inflation.

During the discussion of the research, Mr. Nurdaulet Abilov emphasized the relevance of new frictions embedded in the NK DSGE model and how it can be generalized to other countries in the CCAM region with similar structural characteristics. Furthermore, participants explored the inclusion of remittances in NK DSGE models, particularly relevant for countries heavily dependent on transfers from abroad. The seminar concluded with a forward-looking discussion on potential areas of interest and future work in building DSGE models.