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CCAMTAC- Regional Research/Analytical Economic Policy Seminar Series

“Predicting the demand for CBDC using survey data for Kazakhstan”

August 29, 2023

Introduction:

Ms. Aliya Kistaubayeva, Economic Analyst, CCAMTAC

Moderator:

Mr. Nurdaulet Abilov, Economic Analyst, CCAMTAC

Presenter:

Ms. Zarina Adilkhanova, Lead Analyst-Specialist, Macroeconomic Research and Forecasting Division, Monetary Policy Department, National Bank of Kazakhstan

Interventions:

Mr. Manmohan Singh, Senior Economist, Monetary and Capital Markets Department, International Monetary Fund

Mr. Erik Vardanyan, Head of Research Division, Financial System Stability and Regulation Directorate, Central Bank of Armenia

Mr. Varlam Ebanoidze, Head of Fintech and Supotech Development Department, National Bank of Georgia

Due to the rapidly growing digitalization of payment systems across the globe, central banks are exploring the benefits and costs of issuing their own digital currencies, commonly referred to as Central Bank Digital Currency (CBDC). To assess the impact of CBDC issuance on the economy central banks need to know how much demand for CBDC exists and the key characteristics of CBDC that affect the demand for it. The current research seminar addresses the issue of numerical estimation of the demand for CBDC using a micro-founded model based on household data for Kazakhstan.

The research estimates the demand for CBDC by studying the characteristics of close alternatives of CBDC such as cash and deposits and the perception of these assets by households. The model is based on the estimation of the utility from cash and deposits depending on the characteristics of these monetary instruments, and then mapping the estimated parameters to the utility derived from CBDC. The speaker adjusts the characteristics of the monetary instrument, i.e. CBDC, to reflect both the perception of CBDC



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by households and the product attributes of CBDC. The research also computes the constant elasticity of substitution between CBDC and cash/deposit depending on the CBDC design.

The speaker presented the research findings where the demand for CBDC is significantly affected by the perception of CBDC by households and its design features. Moreover, if CBDC is close to a deposit design, then the demand for CBDC should be higher compared to cash-like, card-like and app-like designs. In addition, the speaker also mentioned that the elasticity of substitution between CBDC and cash is close to unity, i.e. perfect substitutes, if CBDC has a cash-like design. In general, the demand for CBDC varies from 10% to 48% of liquid assets of households depending on the design feature of CBDC.

As the study of CBDC is an emerging topic it gathered experts from the IMF and central banks from member countries for sharing their experience and expertise in CBDC. Manmohan Singh, Senior Economist at the IMF, outlined that the role of bundling of bank products in estimating the demand for CBDC is crucial. He also stated that the bundled bank products (e.g. Kaspi) are what CBDC cannot offer (or compete with). Erik Vardanyan, Head of Research Division at the Central Bank of Armenia, shared the experience of studying the issuance of CBDC in Armenia pointing at a survey study conducted on this topic. Varlam Ebanoidze, Head of Fintech and Suptech Development Department at the National Bank of Georgia, explained the approach of studying CBDC in Georgia. He outlined that the issuance of CBDC is not motivated from a financial perspective but from the perspective of competition and transparency in Georgia. V. Ebanoidze also explained in detail the bottom-up approach in studying CBDC and how they identified technology use cases of CBDC in various sectors of the economy.