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## CCAMTAC- Regional Research/Analytical Economic Policy Seminar Series

“Seigniorage and Currency-in-Circulation (in a digital era)”

May 18, 2023

Introduction:

**Mr. Norbert Funke**, Director, CCAMTAC

Moderator:

**Ms. Altynai Aidarova**, Resident Advisor, CCAMTAC

Presenter:

**Mr. Manmohan Singh**, Senior Economist, Monetary and Capital Markets Department, IMF

Country Interventions:

**Mr. Firdavsi Salimov**, Deputy Head of Monetary Policy Department, National Bank of Tajikistan

The current research seminar addresses the importance of the relationship between seigniorage and currency-in-circulation for all IMF member countries in times of digitalization of payment instruments and lower inflation.

Recent technological advancements and innovations in payment systems should result in a decreasing demand for money that originates from the higher velocity of digital payment instruments. This phenomenon impedes central banks' ability to generate seigniorage by trading non-interest bearing money against interest-bearing assets. In addition, a projected decline in inflation over the medium term in emerging and low-income economies further exacerbates the ability of central banks to raise seigniorage. Mr. Singh presented some evidence from the literature and gave real-world examples of the increase of the velocity of money due to the wide use of digital payment instruments.

During the research seminar, the speaker presented the concept of seigniorage which is defined as the change in reserve money as a share of GDP. Seigniorage can be further decomposed into the change in reserve money (M0) as a share of GDP and inflation. He showed that the seigniorage was mainly driven by high inflation for some countries in the Caucasus, Central Asia and Mongolia as the change in base money was negative for the past several years. However, this trend is expected to reverse as inflation is projected to decline globally in the medium term. Since most of the base money is currency-in-circulation, which



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is exogenous, he uses it in a panel regression with country and time fixed effects as an independent variable. Prior to estimating the panel regression, he excludes from the sample countries with high inflation as outliers and most advanced economies that conducted quantitative easing (QE). Since the purpose of the research was to study the relationship between seigniorage and CiC, the countries where the excess reserves are large than CiC due to the QE were dropped from the sample. The estimated panel regression results show that CiC has a significant positive impact on seigniorage in emerging and low-income countries after controlling for the effect of inflation. The results were robust M0 was used instead of CiC in the panel regression. The speaker concludes that the digitalization of payment systems will lead to reduced seigniorage in the future. The situation shall be exacerbated by the projected inflation dynamics as the anticipated medium-term decrease in inflation shall also reduce the amount of seigniorage that central banks can raise.

The intervention was done by Firdavsi Salimov, the Deputy Head of Monetary Policy of the National Bank of Tajikistan. Mr. Salimov outlined the role played by the shadow economy in determining seigniorage and the extent to which digital payment instruments will be used by the general public. The research seminar was concluded by Q&A session leading to a thoughtful discussion on whether the velocity of money is going to increase with wider use of digital payment instruments if the general public treats digital money and CiC as perfect substitutes.