Central Bank Digital Currency With Adjustable Interest Rate In Small Open Economies

• Venue: TOB2 Meeting Room (Beside Student Services Centre)
• Date & Time: 26 September 2019, 3pm

Synopsis

The distributed ledger technology has sparked the interests in policy makers to consider a digital replacement of physical cash - the central bank digital currency (CBDC). Theories suggest that CBDC facilitates an interest-bearing design that complements existing monetary policy framework, but in reality cash has never been associated with an adjustable return. We bridge the gap by examining the economic consequences of an interest-bearing design of CBDC, and extend the discussion to an open-economy context with trade and capital flows. Through the lens of a dynamic stochastic general equilibrium (DSGE) model, we simulate a baseline scenario which resembles a cash economy, and two counter-factual scenarios associated with interest-bearing CBDC - the price rule and the quantity rule regimes. Our simulations show that 1) the price rule regime is welfare-improving; 2) the adjustable interest rate on CBDC causes uneven distributional effects between households and financial investors; 3) macroeconomic stability is enhanced with the adjustable interest rate; and 4) exchange rate movements are more stable.

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Ammu George is a Ph.D. Economics candidate at Nanyang Technological University. Her primary research interests lie in the area of central bank issued digital currency, monetary economics, macroeconomics and asset pricing. Previously, she worked as an economist with Ernst & Young and Willis Towers Watson. She holds a Masters degree in Applied Economics from Nanyang Technological University.