

Towards an era of cross-border CBDCs

Fast and affordable cross-border payment networks are essential for the digital economy's sustained growth. **BY XIE TAOJUN AND AMMU GEORGE**

THE pandemic has become the catalyst in all digitalisation processes, including that of money. According to a Bank for International Settlements (BIS) survey, central banks are more willing than ever to experiment with the digital versions of banknotes, fashionably known as central bank digital currencies, or CBDCs.

This enthusiasm in CBDCs comes amid the heightened push towards the digital economy. The digital economy expansion has somewhat been characterised by the proliferation of digital payments as businesses move from brick-and-mortar to online. These digital payment ecosystems necessitate digital currency usage. Thus, being legal tenders, the CBDCs are essential to the sustained growth of the digital economy.

INTERNATIONAL PAYMENTS AND THE DIGITAL ECONOMY

The Internet provides consumers with the option to make purchases across borders easily. Settling the payments, however, requires international efforts primarily from the central banks. Central banks need to jointly overcome hurdles in technology, data regulations, and monetary policies to facilitate such international payments.

These hurdles also overlap with other fundamental roadblocks to cross-border collaborations in the digital economy, which, according to our recent research at the Asia Competitiveness Institute (ACI), include data regulations, digital payments, and paperless trade.

The BIS and four central banks successfully concluded Project Inthanon-LionRock in September 2021. The project experimented with cross-border transactions of CBDCs among four central banks, namely, the Bank of Thailand, the People's Bank of China, the Hong Kong Monetary Authority, and the Central Bank of UAE. It introduced a payment architecture named multiple CBDC bridge (mBridge), which facilitates faster payments between any two jurisdictions at lower costs.

The successful completion of Project Inthanon-LionRock sends a positive signal to jurisdictions that hurdles to international payments can be overcome. Since the impediments to cross-border payments also act as barriers to collaborations on digital economy growth, the experience of Project Inthanon-LionRock can be leveraged by jurisdictions to forge digital economy collaborations.

We will explain the role of cross-border payment networks involving CBDCs in overcoming three hurdles for digital economy collaborations.

PAYMENTS EXECUTED FASTER AND CHEAPER

Traditional cross-border payment involves multiple layers of operations. As an illustration, suppose that a sender in Hong Kong triggers a payment to a receiver in Thailand. It requires the sender's bank in Hong Kong to hold an account in a bank in Thailand, known as the correspondent bank. The correspondent bank can then forward the payment to the receiver.

If the sender's bank does not have a correspondent account in Thailand, it must find another Hong Kong bank with a Thai correspondent account before the payment can be sent to the receiver's bank in Thailand.

The multiple layers of operations accumulate transaction fees along the way. If a time difference exists between the two jurisdictions, payments can only be cleared during operating hours of the correspondent bank at the soonest.

With a decentralised network, payment clearance in the mBridge architecture skips the correspondent banks, successfully reducing the costs and time involved in cross-border transac-



Beyond the protection of monetary systems in respective jurisdictions, transacting with CBDCs will also be helpful in broader areas such as tax collection and anti-money laundering, promoting the orderly development of the digital economy. IMAGE: PIXABAY

tions. It relies on advanced distributed ledger technology (DLT). Banks from different jurisdictions can also clear payments round the clock.

With the expanding e-commerce sectors, international wholesale and retail payments are expected to increase in volume. Simplifying the cross-border payment processes means that consumers and businesses can benefit from lower transaction fees, faster clearance, and easier paperwork. It is the key to reduce the frictions in international trade due to legacy payment systems.

The technological innovations in mBridge promote both digital payments and paperless trade, which bolsters digital economy collaborations.

DATA SHARED WITHOUT COMPROMISING PRIVACY

The DLT that facilitates frameworks like mBridge, however, requires sharing of data. Even the closest neighbours may implement vastly different regulations on data sharing. The critical question in clearing a DLT-based international payment is then how information can be shared without compromising data regulations in respective jurisdictions.

In a recent ACI webinar titled *Challenges And Opportunities In Asean's Digital Economy*, the disparity in data regulations and know-your-customer processes were thought to be pressing issues. They ought to be addressed if the Asean region were to proceed with further collaborations in growing the digital economy.

According to the BIS report, Project Inthanon-LionRock will also deliver a solution to the data-sharing issue. Payments can be made without violating data protection policies. This has important implications for the broader digital economy.

In cross-border transactions, there is a need to share data beyond payment information. For example, all involved parties need to be identified to ensure the validity of the transaction. That said, it is also imperative not to disclose excess information to protect data privacy. In this context, the data protection solution by the mBridge architecture will be a significant step towards developing a viable cross-border identification scheme in digital economy collaborations.

MONEY MOVED, COMPLYING WITH CAPITAL MARKET REGULATIONS

Monetary policies are different across jurisdictions. According to the classic macroeconomic trilemma, a central bank can only opt for two out of three policy objectives: free capital flow, stable exchange rate, and independent monetary policy.

For instance, Hong Kong allows free capital flows, but mainland China does not. This

means that cross-border transactions involving the Chinese yuan and the Hong Kong dollar must comply with the mainland's capital control regulations.

Without any exception, cross-border transactions with CBDCs would also be subject to similar monetary policy conditions of the involved central banks.

Besides fast money movements enabled by DLT, CBDCs also help central banks to efficiently monitor the movements of funds in and out of their jurisdictions. In other words, cross-border transactions using CBDCs provide an efficient platform for central banks to inspect the compliance of monetary policy mandates in their jurisdiction.

Expanding cross-border e-commerce makes it very likely that transactions will be more frequent and of more varieties in payment modes and purposes. As such, beyond the protection of monetary systems in respective jurisdictions, transacting with CBDCs will also be helpful in broader areas such as tax collection and anti-money laundering, promoting the orderly development of the digital economy.

DIGITAL ECONOMY COLLABORATIONS IN ASEAN

In growing the digital economy, jurisdictions must collaborate to work towards compatible digital payment systems, data regulations, and paperless trade facilities. Digital payments are a strong point of contention, as smooth flows of funds are essential to economic activity, especially among close trading partners.

The Asean member states agreed to begin talks on the Digital Economy Framework Agreement by 2025. Our research at ACI also finds a similar lack of an interoperable digital payment system to be the main reason for the slow progress of the digital economy in the region.

Nevertheless, bilateral payment facilities have been established between Singapore and Thailand. More such initiatives are being negotiated. The series of CBDC experiments in the pipeline – for instance, Project Dunbar, involving Singapore, Australia, and South Africa – further gives a silver lining in the search for a multilateral payment solution. The experiments are valuable for collaborations in the region.

Going forward, continued efforts in establishing interoperable payment systems in Asean remain an important task. The region will then accelerate the growth of its digital economy, relying on a robust regional payment network.

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