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Special Issue: Next steps for digital currencies

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Editorial

INTRODUCTION

Readers may recall a previous issue of the Journal (Vol. 15, No. 3, to be precise) that included commentary on the speeches of various central bank governors on the benefits, costs and risks of central bank digital currencies (CBDCs). After the publication of that issue, the Bank for International Settlements (BIS),[1,2] along with international organisations such as the Financial Stability Board (FSB), International Monetary Fund (IMF) and World Bank, and numerous central banks published a series of reports on the design of CBDC programmes.

These reports contain a number of different policy considerations that may impact on the design choices for CBDC programmes. The BIS has produced a useful overview of these policies and projects.[3] Some central banks have started to develop rulebooks (with legal and technical standards) for their CBDC services, distributed by licensed payment service providers to consumers, businesses and government agencies.

The market for non-fiat currencies (digital assets) has grown quickly, but in 2022 it became clear that some issuers were not able to deliver their services and meet their obligations to their customers. The risks inherent in the use of such crypto assets have been assessed by the FSB and the BIS, among others.[4,5]

Non-fiat currencies are not really currencies as they do not meet the three core functions of a currency (which are also relevant for payment services), namely, to serve as (1) a unit of account, (2) a means of payments (ie a medium of exchange) and (3) a store of value. The volatility of the value of non-fiat currencies makes these assets unsuitable for consumers and merchants in payments for goods and services.

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Legislators have become increasingly active to ensure that:

- consumers are protected in their use of digital currencies (CBDC and non-fiat currencies);[6,7]
- financial ecosystems are protected to avoid the introduction of (new) systemic and other risks (such as cyber risk);
- supervisors and regulators will be(come) empowered to take the necessary actions if required; and
- CBDCs can become legal tender, similar to banknotes in that country.

The financial industry has relevant technical standards (the ISO TC 68 Standards for Data, Messages and Security) available for CBDC programmes and for non-fiat currencies services.[8] The ISO TC 68 Plenary mandated Advisory Group, No. 5 Digital Currencies is to review if all the available standards are fit for the purpose for the use for digital currencies and/or if additional standards are required.

These developments in policies and standards will impact the progress and use of CBDCs and non-fiat currencies (including stablecoins) and the future of the payments industry.

This special issue of the *Journal of Payments Strategy and Systems (JPSS)* contains a number of papers on these developments. To provide readers with additional context, this editorial also includes a list of six other papers on CBDCs that were previously published in the Journal.

DEVELOPMENTS OF CBDC MARKETS

The public policy perspective

In his paper, Michael Salmony explores how the policy needs of central banks (and other policy makers) can effectively be translated into the market to align with the needs of other stakeholders of the ecosystem. He stresses that policy makers should start by asking what problems they hope that CBDC will solve. He argues that it will be challenging not only to motivate consumers to use CBDCs instead of the available commercial bank money services but also to convince merchants 'to accept yet another payment instrument'. The paper also includes some high-level comments on the technology that could help support the development of CBDC programmes.

The commercial bank perspective

Olivier Denecker, Arnoud d'Estienne, Pierre-Matthieu Gompertz and Elia Sasia review what commercial banks should consider in the event that central banks initiate a CBDC programme. The paper outlines the various hurdles that must be overcome in order to roll out a CBDC programme successfully, and finds public–private cooperation to be key to the successful launch of such a programme

A country perspective

Veni Arakelian's paper reviews the challenges to the introduction of CBDC in Greece. The impact of the potential introduction of CBDC is explored in relation to the specific characteristics of the Greek market, including the payments landscape, financial inclusion and the potential use for cross-border payments. Such market characteristics vary from one country to another (including within the 20 euro area countries). The paper finds that consumer perception and behaviour with respect to digital payments will have a greater impact on the acceptance of CBDC compared with banknotes.

CBDCS ACROSS BORDERS

Experiments

As part of the FSB's 'G20 Roadmap for Enhancing Cross-border Payments', 'Building block 19' factors an international dimension into the CBDC design. Central banks recognise that launching a CBDC has implications beyond its national borders. The FSB highlights the need for multilateral cooperation and interoperability.[9]

The paper by Morten Bech, Codruta Boar, Daniel Eidan, Philipp Haene, Henry Holdon and Wee Kee Toh describes four cross-border CBDC experiments that focus on wholesale CBDC (wCBDC). The authors compare the experiments and provide key insights on their technical feasibility with the use of distributed ledger technology (lower costs, faster settlement, operational transparency). The paper also addresses the broader issues that need to be considered, such as those relating to policy, legal governance and systemic risks.

Chinese DCEP

Through its implementation of the e-CNY, China is currently leading the way in the development of CBDC.[10] The paper by Lisha Wang examines the potential impact of the Chinese DCEP (Digital Electronic Currency Payment) on the international role of the renminbi and how it might compare with other international currencies (notably the US dollar). The paper contends that the e-CNY's first-mover advantage may drive greater use of the e-CNY for cross-border transactions and investments, but concedes that much will depend on CBDC developments globally. As the author concludes, 'China's CBDC will continue to rise but is unlikely to rule'.

WHOLESALE CBDC AND REAL-TIME GROSS SETTLEMENT

Nearly all central banks have implemented real-time gross settlement systems (RTGS), as encouraged by the BIS back in 1997.[11] However, these systems are not based on the same operational rules and technical standards, and this implies operational challenges for international banks and other market participants that use the RTGS services of more than one central bank. In his paper, Harry Leinonen notes that most major central banks are to a certain extent involved in developing either retail and/or wholesale CBDC. The paper analyses the possible similarities and differences between current RTGS systems and the proposed wCBDC systems. If central banks want to serve future wholesale markets, this will require several policy decisions, such as whether to accept foreign participants and how to ensure interoperability with common message and communication standards. Leinonen warns that the development of any wCBDC will result in non-interoperability if systems are not developed with the goal of becoming fully interoperable from the outset. The paper recommends that central banks cooperate on a common project to develop wCBDC standards. The FSB has also stressed the importance of interoperability between CBDCs.[12]

CUSTOMER IDENTIFICATION

Customer identification is a critical part of payment and other financial services. Several international public organisations have expressed the need to have unique identifiers for natural persons and legal entities. For example, in its 'Roadmap for Enhancing Cross-border Payments', the FSB includes Building block 16 on 'Establishing unique identifiers';[13] the Financial Action Task Force has published 'Guidance on Digital Identity'[14] (as well as its focus on virtual assets);[15] and the BIS has published a paper on 'Corporate digital identity'.[16]

Customer identity verification and authentication are of paramount importance to ensure that digital currencies are not used for money laundering or the financing of terrorism. Ignacio Alamillo-Domingo's paper provides an overview of the customer identification aspects of the European Union's Market in Crypto Assets (MICA) legislation.[17] This aims to ensure that crypto-asset service providers are compliant with a set of strict obligations including customer identification and customer authentication. The paper includes relevant references to the EU digital identity policy, the EU Digital Identity Wallet and the electronic attestation of attributes. It also explains that the proposed eIDAS 2 Regulation[18] will cover electronic identification and electronic attestations of attributes of wallets held by natural persons or legal persons (legal entities).

WALLETS

Digital wallets are used for mobile payments and are part of the design of CBDC and non-fiat currency services. There is a growing concern that the technical standards used by the private and public sectors may not be the same. This issue is being discussed in ISO TC 68 Financial Industry expert groups.

Becca Scollan and Erika Darling's paper examines the issues facing users that pertain to financial inclusion, usability, security, privacy and interoperability. The paper identifies 11 key user-centred issues for CBDC wallets and recommends solutions.

FURTHER READING

As discussed, the Journal has previously published a number of papers on the subject of CBDC, to include the following:

- Udo Milkau, 'Do we need a digital euro, or a digitisation of payments?' (Vol. 15, No. 3)
- David Ballaschk *et al.*, 'The public, the private and the secret: Thoughts on privacy in central bank digital currencies' (Vol. 15, No. 3)
- Michael Adams *et al.*, 'An integrated approach for electronic identification and central bank digital currencies' (Vol. 15, No. 3)
- Wilko Bolt *et al.*, 'Getting the balance right: Crypto, stablecoin and central bank digital currency' (Vol. 16, No. 1)

- Ludovica Galotte *et al.*, 'Designing an inclusive digital euro' (Vol. 16, No. 2)
- Leopoldo Esposito, 'Digital euro issuance: A great opportunity with some risks', (Vol. 16, No. 4)

ANNOUNCEMENT ON REVIEWS

JPSS likes to make its readers aware of relevant publications for the payments industry and would welcome reviews of these publications for inclusion in the Journal.

CALL FOR PAPERS

JPSS sets out to publish provocative thought-leadership articles and detailed advice on key issues for the payments industry. Our website includes a call for papers which outlines eight areas for potential new journal articles.

All readers are kindly requested to make additional suggestions available to the publisher, Julie Kerry, and me.

Gerard Hartsink
Editor

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