



© Photo by Dominik Lückmann on Unsplash

T7 Task Force Sustainable Economic Recovery

POLICY BRIEF

CENTRAL BANK DIGITAL CURRENCIES: GOVERNANCE, INTEROPERABILITY, AND INCLUSIVE GROWTH

21.03.2022

John Beirne, Research Fellow, Asian Development Bank Institute

Nicola Bilotta, Senior Fellow, Istituto Affari Internazionali

Mei Lin Fung, People Centred Internet

Tamara Singh, Strategic Advisor, OMFIF



Abstract

As economies have become increasingly digitalized, central bank digital currencies (CBDCs) have been at the forefront of the agenda for central banks as a means to enhance payments systems' efficiency (both domestically and cross-border) and increase financial inclusion, and more broadly to support the effective transmission of monetary policy in the digital age (BIS, 2020; Boar and Wehrli, 2021). While the potential of CBDCs to meet these goals is clear, a secure underlying infrastructure and a credible, globally accepted system is of paramount importance. This would help to mitigate against potential cybersecurity and financial crime risks related to fraud and illicit payments. More broadly, the development of a sound, efficient and interoperable system to enable friction-free use of CBDCs across borders and national systems would help to maintain stability, enhance financial inclusion and support inclusive growth. This policy brief, recognizing the faster pace of digital transformation and innovations in digital finance post-pandemic, calls for the G7 to champion and steward widespread preparations for the introduction of a globally interoperable system for CBDCs. This includes bringing together central banks and international financial institutions to understand the cross-border dimensions in the optimal design of CBDCs and supporting infrastructures, in order to ensure that central bank issued money retains relevance as a vehicle for monetary policy transmission and global financial stability. A coordinated approach to the interoperability of CBDCs would also help to alleviate the potential misuse of CBDC systems for financial crime purposes, such as evading sanctions on financial transactions. The policy brief also proposes policy options for maximizing the potential of CBDCs for inclusive growth, notably in relation to lifting prevailing levels of digital education, financial literacy, and digital infrastructure as part of distribution.

Challenge

The COVID-19 pandemic demonstrated that existing payments systems are not equipped to rapidly transfer payments to those without bank accounts, and enhancements are needed on the prevailing infrastructure for conducting cross-border payments (FSB, 2020). At the same time, the recent activation of sanctions on financial transactions against Russia illustrated the value of today’s systems as a check and balance over abuses of power. To enhance payments systems efficacy, digital finance needs to be available to traditional participants, as well as to micro, small and medium-sized enterprises, plus the estimated two billion individuals that are currently unbanked. Universal access to cross-border payments and remittances, banking services, as well as financial investment products will enable global transition to a resilient, inclusive, fair and equitable digital economy and society.

A recent assessment by the Financial Stability Board of existing payment arrangements identified four important priorities to address: cost, speed, access and transparency (FSB, 2021). Interoperable, multi-CBDC arrangements have the potential to address these, enhancing efficiency while lowering costs of cross-border transactions (Auer et al., 2021). Moreover, a well-designed CBDC could facilitate the digitalization of information exchanges in alternative data, potentially connecting a CBDC system with higher value services provided at a lower cost (ECB, 2021). This could also help to safeguard against misuse of power in respect of global financial transactions more broadly. Against this context, the challenge for policy makers is to establish a framework at the global level that supports: (i) international cooperation and governance on CBDC design and infrastructure, (ii) an interoperability of CBDCs that is robust to cybersecurity risks, and (iii) maximizing the potential of CBDC arrangements for enhancing inclusive and resilient growth. There is no precedent for effectively designing a roadmap with short and long-term targets and milestones to be achieved against defined objectives. Even how the G7 can oversee and set up regular monitoring of these developments by the G7 forum is opaque. As long-term objectives will invariably fall outside the term of the German G7 Presidency, a critical issue relates to the handover of the dossier to the Japan G7 and later G7 Presidents to ensure a continuity in momentum.

Proposals

An integrated policy agenda encompassing CBDC interoperability for post-pandemic recovery and inclusive growth is proposed. G20 members, the IMF, the World Bank and the BIS are expected to announce regulatory frameworks by the end of 2022, with global implementation to begin once frameworks are defined (FSB, 2021). Against this context, the BIS Innovation Hub, in collaboration with selected central banks, also recently completed experimental work on a multi-CBDC system (BIS, 2022). While the G7 economies are in the relatively early stages of CBDC development and related initiatives, China’s e-CNY is at a more advanced stage, and the risk that distinct, non-complementary systems may emerge is high.

Following the UK G7 Presidency in 2021, which endorsed the [“Public Policy Principles for Retail Central Bank Digital Currencies \(CBDCs\)”](#), the G7’s German Presidency of 2022 set a priority to advance the G7’s work on CBDCs and cross-border transactions. In the context of competition amongst digital payments services and providers globally, the establishment of standards and interoperability among CBDC systems should be central to the G7 agenda in this domain. Common pillars adopted by countries with different economic profiles could help to inform national legislations through an assessment of interconnectedness and spillover effects, while also incorporating measures for local data privacy and other cybersecurity concerns.

As it is essential that interoperability is integrated into the infrastructure at the onset, an urgent need exists for multilateral action. Otherwise, the risk of a fragmented CBDC system at the global level would intensify as countries develop independent alternatives to a global system. The G7 needs to take a lead in avoiding such an outcome, which could lead to substantial rises in global financial instability. Much of the international adoption of a national CBDC abroad will depend on agreed and shared standards and solutions, and the recognition of CBDCs as being fit for purpose for countries at all stages of economic development. This would include designing systems and solutions with integrated sustainability goals at the core, such as financial inclusion.

In this evolving international monetary ecosystem, the G7 must secure the alignment of digital currency strategies to ensure that each country can participate in contributing to a more resilient global economy, mitigating risks to financial stability. Against this context, a comprehensive G7 agenda is advocated to support the collaborative design and development of solutions for the interoperability and cross-border dimension of CBDCs. This agenda should be integrated into a wider framework for inclusive post-pandemic growth and recovery.

We propose a series of “Learning Pilot” implementations which allow for oversight and support for the development of CBDCs in 3 economies – with financial and technical support by G7 central banks, BIS, World Bank, IMF and other relevant international financial institutions. The G7 is well-positioned to bring together the nascent work being done by public and private organisations to develop and deploy such “Learning Pilots” that meet the needs of the entire global financial ecosystem, ensuring that (i) national and international guidelines for introducing a CBDC are complementary to existing payments systems and consistent with monetary policy and financial stability objectives, (ii) policy priorities for a CBDC to have inclusive growth outcomes are embedded in design, incorporating such factors as digital literacy, financial education and connectivity, (iii) the concept of multilateral interoperability is proven, and (iv) the resultant framework is fit-for-purpose across countries at differing stages of economic development.

Implementation

A “Learning Pilot” is proposed to support three economies in their research, design and proof-of-concept phases around the issuance of a national CBDC and longer term inclusive growth. As the basis to foster interoperability among national CBDC systems is setting common standards and regulatory frameworks, the G7 should lead the financial and technical support of these CBDC projects to foster a global, shared vision on sustainable CBDC technology.

First, it should promote the establishment of a Task Force of experts that includes representatives from G7 central banks, BIS, World Bank, IMF and from relevant international multilateral institutions and non-government organisations involved in the design of technology standards and protocols. Second, this Task Force should identify one country in Africa, Asia and Latin America to be the subject cases for the “Learning Pilot” projects. The identification and selection of the three countries should consider relevant economic, political and social factors which could provide an enabling environment.

G7 support would set up a Fit for Purpose Plan of Options for the Learning Pilots. The Roadmap for the Learning Pilots would include establishing structured engagement procedures between the Task Force and the relevant national stakeholders encompassing the following objectives:

- (i) Supporting the local central bank to map the domestic market structure and to foster an industry dialogue with relevant stakeholders as well as civil society to assess needs, risks and drivers of a CBDC system. The aim of this phase is to support the domestic central bank in its cost-benefit assessment as well as of the impacts of CBDCs on national financial markets. Assessing the spillovers to inclusive growth outcomes should be central to this.
- (ii) Providing technical support to explore the underlying infrastructure options, consistent with bolstering financial inclusion. In order to ensure CBDC interoperability and enhanced efficiency of cross-border financial transactions, multilateral coordination on infrastructure will be key. This will also underpin gains in long-run growth potential and productivity.
- (iii) Establishing a third-party independent entity for oversight on legal and technical issues that may arise, such as relating to data privacy and cybersecurity.

Overall, the workplan of the Task Force should be guided by the key principles of the UK G7 report, in particular across the following workstreams: (a) Establishment of transparent and sound governance of CBDC infrastructure and management; (b) Assurance of data privacy and AML diligence; (c) Establishment of an underlying infrastructure which is secure and resilient; (d) Support for the integration of a CBDC system within the national payment system to incentivize competition and market efficiency; (e) Oversight of the implementation of energy efficiency and other sustainability factors underlying the CBDC system, and (f) Support investment for financial and digital literacy.

References

- Auer, R., Haene, P., and Holden H. 2021. “Multi-CBDC arrangements and the future of cross border payments”, BIS Papers No. 115, <https://www.bis.org/publ/bppdf/bispap115.pdf>.
- BIS, 2022. “Project Dunbar - International settlements using multi-CBDCs”, March, <https://www.bis.org/publ/othp47.pdf>.
- BIS, 2020. “Central bank digital currencies: foundational principles and core features”, Report No. 1, <https://www.bis.org/publ/othp33.pdf>.
- Boar, C., and Wehrli, A., 2021. “Ready, steady, go? Results of the third BIS survey on central bank digital currency”, BIS Papers No 144, <https://www.bis.org/publ/bppdf/bispap114.pdf>.
- European Central Bank, 2021. The International Role of the Euro, June, <https://www.ecb.europa.eu/pub/ire/html/ecb.ire202106~a058f84c61.en.html#toc18>
- Financial Stability Board, 2021. “G20 Roadmap for Enhancing Cross-border Payments”, First consolidated progress report, October, <https://www.fsb.org/wp-content/uploads/P131021-1.pdf>.
- Financial Stability Board, 2020. “Enhancing Cross-border Payments”, Stage 3 Roadmap, October, <https://www.fsb.org/wp-content/uploads/P131020-1.pdf>

About the Authors

John Beirne – Asian Development Bank Institute (ADBI)



John Beirne was appointed Vice-Chair of Research and Senior Research Fellow at the Asian Development Bank Institute (ADBI) in April 2022. He joined ADBI as a Research Fellow in March 2019. He has over 20 years of experience as an economist in the public and private sectors. In his current role, he co-heads ADBI's Research Department, leading research workstreams on macroeconomics, finance, and infrastructure. He is also co-managing editor of the ADBI Working Paper Series. Previously, he worked as a staff economist at the European Central Bank in various positions for around 11 years, mainly in the areas of international policy analysis and economic research on global financial markets, capital flows, and commodities. He also worked for around six years as an economic consultant with KPMG and senior economist with DTZ in Ireland and the United Kingdom (UK), and for three years as a part-time lecturer in economics at Brunel University in the UK. His research focuses on international macroeconomics, financial economics, and applied econometrics. He has published over 30 articles in peer-reviewed journals in economics and finance, co-authored or co-edited several ADBI books, and serves as an editorial board member of the Asian Development Review and subject editor of Asian Economics Letters. He presents his research regularly at international conferences and lectures at the University of Tokyo and Hitotsubashi University in Japan on topics related to financial globalization, monetary policy, and macro-financial risk. He holds a PhD in Economics from Brunel University

Nicola Bilotta – Istituto Affari Internazionali



Nicola Bilotta is a Senior Fellow at the Istituto Affari Internazionali where he works on international political economy, digital economy and geofinance. He teaches "Digital Diplomacy: New Technologies and New Media in International Relations" at the LUMSA University. He previously worked as a Senior Research Analyst at The Banker Research Team (Financial Times), with which he still collaborates. He was the coordinator of the Task Force "Infrastructure investment and financing" of the Think20 in 2021 under the Italian G20 Presidency. He co-edited the volumes "The Rise of Tech Giants. A Game Changer in Global Finance and Politics" and "The (Near) Future of CBDCs. Risks and Opportunities for the Global Economy and Society".

Mei Lin Fung – People Centred Internet

Mei Lin is Chair of the People Centred Internet which she co-founded in 2015 with Vint Cerf. She is one of the early pioneers of CRM at Oracle, building on her earlier work at Intel, and studies at MIT under future Nobel Economics winners, Modigliani, and Merton. Socio-Technical lead (2011-13) for the US Government Future of Health initiative she began as subject matter expert for Networked Improvement Communities (2009-10). She is the convenor of the Digital Cooperation and Diplomacy network working closely with the UN agencies, ITU and UNDP, and advisor to Design for Change, a global educational innovation network, and the venture fund, VentureRock.

Tamara Singh – OMFIF

Tamara considers global systems and the nudges that may help to render them more sustainable, drawing on her expertise in Financial Systems, Digital and Sustainability. Her portfolio career allows her to devote energy to her profession and passions. Tamara's career crosses energy, financial services and fund management, governing trading floors in London, New York, and Asia Pacific. Having earned her stripes at Centrica Plc, BP Oil International, Deutsche Bank and Macquarie Bank. In Singapore since 2012, Tamara served Westpac Banking Corporation and GIC, the sovereign wealth fund where she contributed to digital transformation and sustainability initiatives. Tamara works at all levels across industries to better the finance ecosystem and to further enterprises through sustainable business practices. She holds Board positions with Conjoint Consulting, Southeast Asia's first social change consultancy, and the People Centred Internet, a 501(c)3 non-profit organisation, and is an Advisor to OMFIF, a Central Bank think tank, CarbonBlue Innovations, a blockchain venture builder, and Hex Trust, a Digital Assets Infrastructure firm. She coaches leaders of organisations and advises start-ups navigating sustainability and scale.



The Think7 engagement group under the German G7 presidency 2022 is jointly chaired by the Global Solutions Initiative and the German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE) as mandated by the German Federal Chancellery.



[This publication has been being published under the Creative Commons License CC BY-ND 4.0.](#) You are free to copy and redistribute the material in any medium or format for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms:

Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

NoDerivatives — If you remix, transform, or build upon the material, you may not distribute the modified material.

No additional restrictions — You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

Publisher:



Deutsches Institut für
Entwicklungspolitik



German Development
Institute

Deutsches Institut für Entwicklungspolitik gGmbH
Tulpenfeld 6
D-53113 Bonn
www.die-gdi.de