CBDCs and Their Implications for the International Monetary System

Robert Fay and Angelo Federico Arcelli
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About the Authors

Robert (Bob) Fay is a highly accomplished and respected leader in the field of digital economy research. With more than 30 years of experience working in the public and private sectors, he has developed expertise in economics, policy analysis and strategic planning.

Currently, Bob serves as managing director of digital economy at the Centre for International Governance Innovation (CIGI), where he leads a network of researchers focused on the intersection of technology, trade, innovation and governance. In this position, he has played a key role in shaping the discourse around the digital economy and has contributed to numerous policy debates and research initiatives on topics such as data governance, digital innovation and the future of work.

Before joining CIGI, Bob held various leadership positions at the Bank of Canada (BoC), where he was responsible for the assessment of digital technologies for Canada’s economy and international economic developments, and provided short-term forecasting, structural analysis and policy advice. He was also special assistant to BoC Governor Mark Carney and his chief of staff, playing a key role in delivering policy direction. Bob began his career as an economist at the Organisation for Economic Co-operation and Development, where he worked on labour market issues and country-specific analyses.

Bob holds an M.A. in economics from Queen’s University and has published numerous research papers and policy briefs on a range of economic and policy topics.

Angelo Federico Arcelli is a CIGI senior fellow and a professor of economics of international institutions at Guglielmo Marconi University in Rome. Federico has served in several adviser roles, including at the European Investment Bank and at the Independent Evaluation Group (World Bank Group) and as a member of the executive board of the World Bank (in Washington, DC, 2008–2009) and of the consultative committee (“Osservatorio”) on the European constitution in Italy’s Ministry of European Union Affairs (2002–2004). In the private sector, he currently holds positions at Oliver Wyman and Marsh and McLennan Group. He holds an M.Sc. in economics and a Ph.D. in economic history, both from Bocconi University in Milan.
Introduction

This conference report summarizes the key points and discussions from the conference “Central Bank Digital Currencies (CBDC) and Their Implications for the International Monetary System,” which was co-hosted by the Centre for International Governance Innovation (CIGI), the Fondazione Mario Arcelli ETS, Istituto di Studi per l’Economia Applicata (ISEA) and UniCredit Group on April 4, 2023, in Rome at Palazzo de Carolis.

The conference was opened by an address from Elissa Golberg, ambassador of Canada to Italy; by Pier Carlo Padoan, chairman of UniCredit Group and former minister of economy and finance of the Republic of Italy; and by Paul Samson, president of CIGI. The address was followed by introductory remarks from Rainer Stefano Masera, dean, Università degli Studi Guglielmo Marconi (UniMarconi). The speakers discussed the evolving situation at central banks regarding the possible introduction of a “central bank digital currency” (CBDC) and the likely impacts on regulation and financial markets, setting the stage for two panels: “How CBDC Will Impact Monetary Policy and What Could Be the Implications for the Financial Sector”; and “CBDC: A Game Changer or a Gatekeeper?” A concluding keynote address was given by Giovanni Tria, a CIGI distinguished fellow and former minister of economy and finance of the Republic of Italy. The conference was held under the Chatham House Rule.

Discussions

There is public confusion about the definition of a retail CBDC versus other types of digital currencies, for example, cryptocurrencies (or assets) and stablecoins. Participants stressed that CBDCs would be a liability of a central bank, noting the definition from the Bank for International Settlements (2020, section 1.2, 3) was “a digital payment instrument, denominated in the national unit of account, that is a direct liability of the central bank” and must not be mixed with other existing private payment tools, particularly with “crypto assets.” In fact, the former are “money,” in the standard form of being legal tender for payments and a liability on central bank balance sheets, while the latter are more akin to commodities, normally based on blockchain technology structures. As a national currency, CBDCs would enjoy the stability and benefit of the trust that the issuing institution can transfer to money.

The difference among common “banknotes” and CBDCs is essentially the platform, as the former are material (paper based) and the latter digital. But the move to a digital platform raises many complicated monetary and financial stability-related issues, as well as of governance (for example, related to privacy, competition, consumer protection and so on) that are currently being theorized and, in some cases, tested.

With respect to monetary policy, some of the many possible implications of a CBDC include:

→ disintermediation of the banking sector, especially in times of market stress;
→ conversely, the ability to remunerate a CBDC and implications for efficiency of the monetary policy transmission process;
→ the impact on the level of the neutral rate of interest;
→ the rise of competing currencies;
→ currency substitution nationally and internationally;
→ the role of the US dollar as a reserve currency; and
→ non-banks potentially holding central bank reserves and how they would fit into the monetary policy transmission process.

Participants focused more on the possibility of new monetary tools, which could result from a CBDC, including the implications of alternative digital currencies for the control of the money supply, although there was little discussion on how they may affect the monetary policy transmission mechanism. For example, it is not yet known what new tools might be implemented and how they could impact the economy (for example, GDP multipliers or inflation). Moreover, the authority to create and release a CBDC might not reside with

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1 His closing remarks are available at www.cigionline.org/articles/will-cbdc-be-a-game-changer-or-a-gatekeeper/.
the central bank. In that context, an unanswered question in the European Union is whether the system is ready for such a change, given stalled projects such as the banking union and capital markets union. In other words, is greater financial integration at the EU level a prerequisite for the launch of a digital euro, or, alternatively, would the launch accelerate or even force greater integration?

One impetus for the burgeoning research on CBDCs by central banks is that cryptocurrencies and stablecoins might become a threat to monetary policy, although it is also clear that cryptocurrencies would never be a real substitute given their wide fluctuations in value. At the same time, it is also too early to tell if current initiatives by central banks would have any real impact on the popularity of cryptocurrencies — and their uses — although much of that may be decided via regulation.

Nevertheless, many see CBDCs as a way for central banks to take back the space occupied by new tools such as crypto assets to regain full control and monopoly of the payment systems. Current CBDC initiatives in countries such as the Bahamas and China were not viewed as substantive test cases on broader thinking about CBDC design since they reflected the particular goals of those jurisdictions.

Perhaps not surprisingly, substantial emphasis came from private sector representatives around potential disintermediation and implications for bank business models as well as who would bear the costs of a CBDC introduction (the European Central Bank [ECB] or the private sector) with a view that, given the public nature of a CBDC, the costs should also be borne publicly.

A recent paper by Oliver Wyman Forum suggests that “the launch of a CBDC would require adapting existing money movement rails, and/or building entirely new ones, and thus requires a series of difficult choices. This endeavor presents countries with an opportunity (among others) to reimagine their payment systems to fulfill a clear policy vision. Success will require being amenable to change as well as reconciling policy, technology and market impact” (de Lima and Salinas 2022, 9). The paper goes on to say that “many central banks are at a stage in their explorations where the structure of a future CBDC system should be outlined with sufficient clarity so as to launch targeted technical experiments, while maintaining maximum flexibility to tailor the final system in line with public consultation, changing policy priorities, and the outcomes of technical trials” (ibid.).

Although the discussion was focused on retail CBDCs, it was noted that they can also exist at the wholesale level, and wholesale CBDCs may be analogous to reserve systems but could differ from existing real-time gross settlement solutions by making the central bank balance sheet available anytime. Central banks have many initiatives under way and are, for example, exploring technologies that enable direct peer-to-peer payments between institutions.

More generally, developments in digital currencies are taking place against broader changes in the financial system as a result of digital technologies, and the future will necessarily need a new framework on the regulation of banking and financial activities, which will not only include new tools (digital), but also a new way to consider economic policy. The current international architecture for ensuring stability and preserving efficient payment and settlement schemes might need serious reform and, perhaps, the establishment of new institutions in addition to the current International Monetary Fund (IMF).

The concerns with disruptive digital innovations depend on the perspective: for incumbents, it is their ability to continue dominating the financial sector; for central banks and financial sector regulators, it is about keeping abreast of digital transformation from blockchain and other technologies and their implications for both financial sector stability and monetary policy; and for fintech, it is their ability to enter the system and compete on an even footing.

The digital transformation has forced incumbent institutions to enhance their customer-centric approach both for customer retention purposes and to avoid losing ground on new services offered by new competitors that could, in the medium term, lead traditional customers to leave banks. Banks, however, could also enter into new commercial domains, ancillary to their core services, to compete with emerging challengers. Ultimately, for banks, the key to being successful will entail them promoting a dialogue with the client, to offer not only traditional services but also new ones in a cost-effective way. In addition, a dialogue with authorities will also be required to define the scope and limits of eventual new activities to fully account for the implications for regulatory capital, solvency and liquidity. Also, a clear definition of limits in responsibility and compliance and the introduction of some
ways to comply with anti-money laundering/know-your-customer issues would be a relevant part of any new regulatory framework.

Careful attention will need to be paid to the financial regulatory framework. The birth of new forms of quasi-currencies and non-banking intermediaries has created an uncharted territory for traditional regulators, including central banks and their role in maintaining financial sector stability. These new forms of “money” used to settle payments or by major e-trade players on the market have, on the one hand, created a new layer of money supply, out of the control of any authority, and on the other, have also created a market where the traditional forms of insurance for depositors and protections for customers are absent. Furthermore, there is no way any current authority would effectively exercise the roles that central banks have traditionally played with bank intermediaries or the ones that other financial regulators have covered in their respective domains.

With respect to financial stability, on the one hand, a retail CBDC could mitigate bank runs since deposits may be safely preserved at the central bank (which cannot fail as it has the power to issue the currency); on the other, in a two-tier system (with the central bank and commercial banks continuing their traditional roles), a CBDC could lead to bank runs especially in times of financial market stress. Much will depend on design, although some central banks such as the ECB have said that, should a retail CBDC be introduced, no interest would be paid and the amounts that could be held by consumers would be limited.

Finally, the implications for coordination of economic and financial sector policies internationally were discussed against a background where we have already witnessed substantial spillovers in monetary policy as a result of actions taken in light of the current inflationary environment that has been driven by a number of shocks, including past pandemic support, energy and commodity price shocks, and various supply shocks including those stemming from the Ukraine invasion. Questions raised included how the rise of digital assets and crypto assets could pose problems for international regulation, as well as for monetary sovereignty. This situation could lead to the creation of a “renewed” IMF or require the creation of a parallel entity focusing on digital currencies. It could also lead to a “privatization” of supervision with smart contracts and regulatory technology (“regtech”) and supervisory technology (“suptech”) being a large element of the scheme. It is also taking place against a background where the US dollar as the global reserve currency has also been used as a possible weapon in international relations.

Conclusion

There are many unanswered questions around the potential impacts that a CBDC could bring to the monetary system — domestically and internationally — as well as for financial stability, should it be implemented. The implications could be quite profound and, perhaps for that reason, despite burgeoning research, most major jurisdictions have not yet introduced one. What seems clear is that a reflection about the growing impact of digital technology in payments settlement and in the new definition of money, including the primary role that data control might play in the future, especially around privacy and competition, will likely be a core part of the international debate on new digital currencies.

Works Cited


Agenda

April 4, 2023

9:00–9:30  
Registration and Morning Refreshments

9:30–9:45  
Welcome Remarks
   → Elissa Golberg, Ambassador of Canada to Italy
   → Pier Carlo Padoan, Chairman, UniCredit
   → Paul Samson, President, CIGI

9:45–10:00  
Introductory Remarks
   → Rainer Stefano Masera, Dean, UniMarconi

10:00–11:00  
First Panel: How CBDC Will Impact Monetary Policy and What Could Be the Implications for the Financial Sector
   → Moderator: Robert (Bob) Fay, Managing Director of Digital Economy, CIGI
   → Giovanni Sabatini, Director General, Associazione Bancaria Italiana (Italian Banking Association, ABI)
   → Luca Corsini, Group Head of Transactions & Payments, UniCredit
   → Paola Subacchi, Professor of International Economics and Chair, Advisory Board, Queen Mary Global Policy Institute, University of London

11:00–11:15  
Coffee Break

11:15–12:15  
Second Panel: CBDC: A Game Changer or a Gatekeeper?
   → Moderator: Alexander Privitera, ISEA
   → Carl-Christoph Hedrich, Former Senior Research Manager, Commerzbank
   → Nicolas Véron, Senior Fellow, Bruegel
   → Dominik Weh, Partner and Co-head, Public Sector and Policy Practice, Europe, Oliver Wyman

12:15–12:30  
Closing Remarks
   → Giovanni Tria, Distinguished Fellow, CIGI and ISEA
Panellists

Luca Corsini
Group Head of Transactions & Payments, UniCredit

Robert (Bob) Fay
Managing Director of Digital Economy, CIGI

Elissa Golberg
Ambassador of Canada to Italy, Global Affairs Canada, Government of Canada

Carl-Christoph Hedrich
Former Senior Research Manager, Commerzbank

Rainer Stefano Masera
Dean of Economics and Law, UniMarconi

Pier Carlo Padoan
Chairman of the Board of Directors, UniCredit

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