

8-27-2023

## Central Bank Digital Currency Is Good As Long As All Stakeholders Are Involved

Manoel F. A. Gadi Mr  
*Universidad de Alcala de Henares, manoelgadi@gmail.com*

Miguel Angel Sicilia  
*University of Alcala, msicilia@uah.es*

Follow this and additional works at: <https://jnf.ufm.edu/journal>



Part of the [Finance Commons](#)

---

### Recommended Citation

Gadi, Manoel F. A. Mr and Sicilia, Miguel Angel (2023) "Central Bank Digital Currency Is Good As Long As All Stakeholders Are Involved," *Journal of New Finance*: Vol. 3: No. 1, Article 4.

DOI: 10.46671/2521-2486.1023

Available at: <https://jnf.ufm.edu/journal/vol3/iss1/4>

This Article is brought to you for free and open access by Journal of New Finance - UFM Madrid. It has been accepted for inclusion in Journal of New Finance by an authorized editor of Journal of New Finance - UFM Madrid.

---

# Central Bank Digital Currency Is Good As Long As All Stakeholders Are Involved

## Abstract

Recent changes in the money supply landscape like the rise of Cryptocurrencies like Bitcoin and also China pushing for broader use of its Digital Yuan soon [1] are forcing governments around the world to investigate about central bank [issued] digital currency (CBDC). In this work We want to analyse the level of understanding of CBDC, opportunities, risks, limitations and obstacles. We explore the pros cons and possibilities of implementing a central bank digital currency (CBDC) by highlighting the different levels of acceptance of a CBDC from four groups of stakeholders: Central Bankers, Bankers, Fintech and General Public. The result from our survey carried out during the month of February 2022 shows different concerns depending on the stakeholder, we can highlight: that Fintech, Digital Bankers and Bankers agree that digital currencies could lessen the risk of money laundering, Central Banks do not believe this. All groups agreed that credit card companies like Visa, Mastercard will lose up market share. Also, while Central Bankers believe that cutting off traditional banks from the supply of digital currency means that there is no multiplier effect in the economy, Bankers and people in Fintech and the general public do not believe so. From what we conclude that the creation of the CBDC is in good taste so long as all stakeholders are involved, and big issues such as privacy, and risk of it affecting the current financial system are kept in mind.

## Keywords

Central Bank Digital Currency, CDBC, Cryptocurrency

## JEL Code

E42

## Acknowledgements

We would like to take this opportunity to express our sincere gratitude to Mayte Arráez González for providing us with numerous leads to educational material at the inception of this project. Her contributions have been invaluable and have greatly facilitated our work. Furthermore, we would like to extend our heartfelt appreciation to all those who took the time to share their knowledge and insights by responding to our questionnaire. Your input has been instrumental in helping this article possible.

## Submission Date

1-17-2022

## Approval Date

7-31-2023

## Publication Date

8-27-2023

## 1. Introduction

Cryptocurrencies are pushing governments around the world to investigate the central bank digital currency (CBDC). CBDC can be broadly considered as the virtual form of fiat currency. Concrete implementation technologies are still under discussion, but they are oriented to becoming an electronic record or a digital token of the official currency of a country regulated by the monetary authority of the state or the central bank.

According to Bordo and Levin (2017), digital currency refers to an electronic form of both regulated and unregulated currencies, allowing immediate transactions between payer and payee. In some cases, their invention brought lower fees, but also threats including security of the IT infrastructure and value volatility. This form of electronic money can come in three different forms: cryptocurrencies, virtual currencies and CBDCs. It is still being debated whether the latter should be owned by central banks. Consequently, CBDC could be defined as a reduced cost medium of exchange, (when compared to conventional paper money) that can serve as a secure way of storing value while earning a rate of return. This is in addition to having a smoother transition to an eventual obsolescence of paper money and the implementation of a monetary and fiscal policy, along with fostering price stability.

In July 2021, the European Central Bank (ECB) launched the digital euro project (ECB 2021b) to investigate the possibility of how people in Europe could use a digital euro and take government owned money and turn it into a digital format. A digital euro would combine the efficiency of a digital payment instrument with the safety of the central bank money, but not to discontinue cash or lower interest rates in the economy. They used the People's Bank of China as an example, with the digital Yuan, which China has been testing lately and is already gathering support, stimulating a wider use according to Kharpal (2022).

The Italian economist Fabio Panetta (2021), member of the Executive Board of the European Central Bank, pointed out how history shows that financial stability and public trust in money requires a wide use of public alongside private money. Money has evolved with technological innovation and this practice is continued in the current digital age. The arrival of cryptocurrencies like Bitcoin, stable coins and the announcement by the People's Bank of China of a digital yuan, have led other central banks to explore the possibilities of issuing their own digital currencies. For instance, the ECB wants to keep acting as a monetary anchor, ensuring stability without replacing other digital payment providers as the role of cash as the store of value diminishes. Fabio Panetta explores the main challenges of creating a good value proposition for private money, whilst ensuring privacy and acceptance, as it would require implication from the entire chain. Jonas Gross et al. (2021) explored the design of a CBDC, that provides users with privacy features similar to cash. It discusses the components of the CBDC, the challenges associated with its design and the features that are required for it to be successful. The report proposes a design that is resilient to privacy attacks and supports user anonymity. Auer and Böhme (2021) looked at issues related to the implementation of retail CBDCs. It examines the design considerations and challenges related to the use of CBDCs, including legal and operational aspects, as well as the potential role of distributed ledger technology and smart contracts. This is in addition to examining the potential implications of CBDCs on the economy and the financial system.

According to BIS (2021b), central banks have not yet decided to proceed with a retail CBDC because of its wide-ranging implications. Central Banks are trying to preserve the "centrality" of central bank money for future systems. They expect public trust and support for public welfare as they develop a CBDC. Central banks are trying to capture the public trust by delivering their public policy objective as they show the public that the central banks can respond to future systems. Their plans focus not only on domestic explorations but also on enhancing cross-border payments. Through these plans, central banks want to expand their traditional capabilities, insisting that domestic interoperability would be essential for coexistence. As of 2023, the EU area already offers domestic interoperability and is currently seeking instant regional payments. Domestic interoperability would be suitable for fragmented

jurisdictions and Central Banks appear to wish to involve public and private sectors to be involved in this system. Auer et al. (2021) examine the characteristics, implications and management of the global financial cycle, with particular focus on cross-border and interoperability issues. The source provides recommendations for policy makers to manage the global financial cycle.

In this paper, we highlight the different levels of acceptance of a CBDC from four groups of stakeholders (Central Bankers, Bankers, Fintech and the General Public) by showing the result of a survey carried out during the month of February 2022 during the Fintech/Digital Banking course carried out in Spain in the IE Business School and in Egypt by the ZISHI cornerstone group respectively, where stakeholders from those groups were requested to rank their perceived opportunities and threats of a CBDC.

## 2. Background

A digital form of a fiat currency is regulated by a central bank and Bitcoin and other cryptocurrencies are not. The second is stored on a distributed blockchain network whilst the first does not necessarily need to be so. From our survey results, we observed that most responders feel that a CBDC would be unaffected by any given bank failure, and, for those responders, this could be a primary reason why they could prefer a CBDC over a bank account. According to the European Central Bank (2021c), eliminating the risk would drive people away from bank accounts and be of benefit to people and the economy. The paper points out that Merchant acceptance, intermediary willingness to distribute it, and connecting with users are the three key success elements for CBDC, as well as an enticing value proposition for consumers and companies to use it for payments. In July 2021, the ECB launched the digital euro project to investigate how people in the euro area would use a digital euro and take Government-owned money and turn it into a digital form (ECB 2021a). A digital euro would combine the efficiency of a digital payment instrument with the safety of the central bank money. However, as pointed out by the central bank itself, it will not discontinue cash. Most of the respondents are willing to support a digital euro, and see privacy as a challenging point, especially when considering accessibility and simplicity in its use as a means of payments. While the ECB is considering the implementation of a digital euro in the form of cash, it is important that they evaluate potential risks/threats as well as the advantages of such implementation. Privacy and solvability threats are backed up by statements made by the ECB and threshold implementations as discussed in Bruegel (2021).

The European Central Bank is coming to terms with the fact that European consumers are increasingly paying less with cash. Panetta shows its viewers that financial stability and public trust in money requires a widely used public money alongside private. Since the foundation of the Central Bank, this has been done using cash. As transactions are moved to card-based and online channels, the ECB may introduce its own CBDC to ensure monetary sovereignty. There are several challenges with introducing CBDCs. First, the Digital Euro should be attractive enough to be used as a means of payment, but not so attractive to make it a successful store of value of private money, at the risk of causing bank runs. The implementation of the Digital 101 Euro must involve the intermediation of banks. One of the concerns could be that implementing a Digital Euro would mean that the ECB is directly competing with existing digital payment providers and must prove to its users a better value proposition than Paypal or other forms of digital payments, such as cryptocurrencies as 105 seen in Panetta (2021). However, there are several distribution models being currently discussed. BIS (2021a) compares various distribution models and concludes that a two-tier distribution model, where the central bank issues CBDCs to commercial banks who distribute them to the public, is the most efficient way to distribute CBDCs. A two-tier model would not require ECB to compete, as the distribution would still be on the part of the commercial banks.

Lagarde concludes by discussing the idea of the 'digital Euro' and suggests that society is moving to a digital world and that the ECB needs to evolve. Nevertheless, there are obstacles, such as money laundering and terrorism financing. She also states that budget and time need to be allocated to fully comprehend the potential adoption while considering risks and advantages, strongly emphasizing that the current focus is a 2% inflation rate as seen in Lacqua (2021).

As seen in Panetta (2021), the ECB is weighing up and looking at policy implications of what it would mean to implement a Digital Euro. In their presentations, they go into detail as to what role they have in terms of giving the currency an anchor characteristic to control the value of it and the parties involved when issuing this new movement. The ECB also weighs the opportunities given by the issuance of this new digital currency such as diversification of financial services providers and ease of payments and its possible challenges such as increased risk of bank runs and having deposits shift into the central bank and not commercial banks. Finally, they touch upon certain possible safeguards for policy implementation such as transaction and maximum holding limits as well as remuneration considerations.

Central banks have not yet decided to proceed with a retail CBDC, working on this topic because of its wide-ranging implications. Banks are trying to preserve the "centrality" of the central bank money for future systems. They expect public trust and support for public welfare as they develop a CBDC. Central banks are trying to capture the public trust by delivering their public policy objective as they show the public that the central banks can respond to future systems. Their plans focus not only on domestic explorations but also on enhancing cross-border payments. Throughout these plans, central banks want to expand their traditional capabilities. Central banks want public and private sectors to be involved in this system. They will continue with their practical policy and technical analysis, strengthening outreach and communication with the domestic and international market as seen in BIS (2021b).

In order to evaluate the feasibility of the currency design choices identified in the Report on Digital Euro (ECB 2021b), the Euro system's High-Level Task Force on Central Bank Digital Currency launched an experiment (ECB 2020). The experiment evaluated four work streams: scaling the existing, combining feasibilities, a new solution and a better instrument. From these experiments they came to the following conclusions: regarding the digital euro, they came to the conclusion that the solutions suggested did not cover through put time or latency which were essential factors for a multi-ledger environment. On the other hand, they saw that blockchain could easily accommodate different levels of privacy for different uses. They also confirmed that it was feasible to implement limits on balances and transactions, but only if the user was online. If the user was offline, it would be a lot more challenging to impose any type of limit and even harder to make it time-sensitive. Last but not least they saw that the solutions suggested in near field communication (NFC) and Bluetooth were promising in their ability to support fast transactions but not so promising in terms of practicality. These findings give Central Banks a better idea of the potential as well as the limitations of future digital currencies.

As discussed in Mancini Griffoli (2021), older generations have trouble understanding the long-term benefits for society of using a digital currency. Meanwhile, the use of cash is something we understand as tangible, safe and trustworthy, while a digital currency is effectively an advancement in innovation and technology. A digital currency will allow for faster, potentially safer and more convenient transactions, through the accessibility of personal mobile phones. Auer et al. (2020) examine three distinct CBDC approaches from the central banks of China (ECB 2021b), Sweden, and Canada. It finds that CBDCs can offer convenience and accessibility to customers, but also come with risks that must be managed.

Among all the revised studies, we see a lack of differentiation between the stakeholders involved in the use and distribution of a CDDB. Mainly grouping stakeholders that could see the creation of a CDDB as risk or an opportunity for their current position. Therefore, in this study we seek to understand the level of acceptance of a CDDB by Central Bankers, Bankers, Fintech and the general public.

### **3. Methodology**

#### **3.1. Data**

The lack of data for this brand-new proposition forced us go actively into the stakeholders with a survey with 16 questions created with the most relevant pros and cons for a CDDB identified during the literature review (Gadi and Sicilia 2022b) (link to the survey available in references section). This form did not differentiate between the pros and cons and let professionals and different key players of the market rank their personal opinions from the best pro to the worst con. The data (in csv format) with all the responses of the survey as of February 25, 2022 is available at Gadi and Sicilia (Gadi and Sicilia 2022a).

#### **3.2. Statistical tests**

Across all geographic and professions, the three most important factors chosen by participants were “Modern and innovative solution to store value that is user friendly for the digital world”, “Shows adaptability of the central bank as a monetary anchor and therefore increases trust in the local currency” and “Eases money transformation by tracking technology, which allows legal cases to be solved more accurately”.

During the analysis, the aim was to find; 1) if the answers were significantly different from each other and 2) if there was a specific difference between job categories. Due to the analysis being in the form of a survey data, it was decided to accept it as ordinal and use statistical significance tests to find differences between them. The data did not follow a normal distribution; it was non-parametric and we had no prior statistical knowledge about the population, so it cannot be considered a random sample, which is an important limitation and threat to the validity of our conclusions, which should be taken as exploratory only. Consequently, to demonstrate the statistical difference of survey answers, Kruskal-Wallis was used. As for the difference of job categories, instead of comparing multiple groups, it was decided to look for the difference between two groups. The data followed non-normal distribution, it was non-parametric, and we had no prior statistical knowledge about the population. The Mann-Whitney U test was used for this and the assumption of each group following a similar distribution was checked beforehand.

#### **3.3. Analysis**

The detailed notebook with all the performed analysis and statistical 222 tests mentioned/summarised below is available upon request to the corresponding author at Gadi and Sicilia (2022c).

### **4. Analysis and results**

From our results, it can be observed that 84 people have been interviewed. The consultation gathered people working into the following areas and with the respective number of answers: Central Bank (2), Fintech / Digital Bank (15), Bank (29) and Other (38). Most of them come from Spain (37) and Egypt (26), but they are also coming from the following countries: Brazil (3), United Arab Emirates (2), Saudi Arabia (2), Canada (2), Ecuador (2), Turkey (2), Dominican Republic (1), France (1), USA (1), Africa (1), and Germany (1)

The responses between professions differ. As one can see from Figure 1, the three most important factors chosen by participants from the “Bank” group were “Modern and innovative solution to store value that is user friendly for the digital world”, “Shows adaptability of the central bank as a monetary anchor and therefore increases trust in the local currency” and “Monetary policy can remain in central banks in case cash is no longer used”. For the “Central Bank” group it differed widely. The most important factors were “Difficult to design properly so as to make it good enough to be used as a means of payment, but not so good in order to make it attractive as a store of value, which could cause bank runs”, “CBDCs could be vulnerable to cyberattacks, meaning people would trust the CBDC less”, and “It will require a strict auditing and protection system as the system relies on people for technical capabilities where an employee can easily transfer money to their own account”.

“For Fintech and Digital Banks” the most important issues are like Banks, which are “Monetary policy can remain in central banks in case cash is no longer used”, “Modern and innovative solution to store value that is user friendly for the digital world”, and “Eases money transformation by a tracking technology which allows legal cases to be solved more accurately”. Finally, the last group “Other”, which are any people outside the other groups have widely different factors that cannot be grouped together.

We observe that the rest of the countries have only two to three answers. We can note that most of the Bankers are coming from Egypt and all Central Bankers are from Egypt, (two people). Also, most people from a Fintech background come from Spain (10) and this country is also mostly present for the Other category (25). Regarding the question “How long have you worked with your current employers?”, it can be clearly stated that the people interviewed have been working within zero to ten years with their current employer.

The correlations matrix results need to be highlighted. Particularly high correlations have been found in the following statements. On the one hand, CBDC could be used as a surveillance method by rogue governments and banks to monetize the data generated with CBDC, potentially jeopardizing data privacy. On the other hand, CBDC could be vulnerable to cyberattacks, meaning people would trust the CBDC less.

Figure 1. Table of results from survey

Please indicate where you work	Bank	Central Bank	Fintech / Digital Bank	Other
Monetary policy can remain in central banks in case cash is no longer used	3.344828	2.0	3.933333	6.552632
Modern and innovative solution to store value that is user friendly for the digital world	3.586207	4.0	2.666667	4.789474
Shows adaptability of the central bank as a monetary anchor and therefore increases trust in the local currency	3.620690	2.0	3.933333	5.394737
Privacy would be ensured, since the central bank is not incentivized to monetize users data	6.241379	2.0	4.200000	5.815789
Reduces friction and expensive fee structures currently seen in the market	4.379310	3.0	4.333333	5.631579
Eases money transformation by tracking technology which allows legal cases to be solved more accurately	5.206897	3.0	3.133333	4.657895
Lessen the risk of money laundering	5.206897	9.0	4.600000	6.026316
traditional banks are worried that they will be cut off from the intermediation process	6.344828	2.0	4.200000	5.894737
Cutting off traditional banks from the supply of digital currency means that there is no multiplier effect in the economy	7.137931	3.5	7.733333	7.421053
Difficult to design properly so as to make it good enough to be used as a means of payment, but not so good in order to make it attractive as a store of value, which could cause bank runs	7.344828	1.5	5.866667	7.552632
Banks will want to monetize the data generated with CBDC, potentially jeopardizing data privacy	5.862069	2.5	5.133333	7.789474
CBDCs require direct integration with users and therefore means that is directly competing against other digital currencies	4.896552	3.0	5.333333	7.526316
CBDCs could be vulnerable to cyberattacks, meaning people would trust the CBDC less	6.275862	1.5	4.866667	8.157895
CBDCs could be used as a surveillance method by rogue governments	6.137931	1.5	4.200000	8.263158
Credit card companies like visa, mastercard will lose up to 40% of customer transaction information if CBDC replaces credit card	5.448276	5.0	5.466667	6.315789
It will require strict auditing and protection system as the system relies on people for technical capabilities where an employee can easily transfer money to their own account	5.172414	1.5	4.400000	5.921053

Source: author’s own.

Furthermore, the statements with regards to confidence in a digital currency that had the highest mean value were the following. Firstly, the difficulty to design it properly to make it good enough to be used as a means of payments, but not so good as to make it attractive as a store of value, which could cause bank runs. Secondly, in a direct CBDC, cutting off traditional banks from the supply of digital currency means that there is no multiplier effect in the economy (this is improbable in an indirect or synthetic distribution model). And thirdly, the highest mean means that most people interviewed believed this. On the other hand, the statements that held the lowest means are “modern and innovative solution to store value that is user friendly for the digital world” and “Shows adaptability of the central bank as a monetary anchor and therefore increases trust in the local currency”.

We wanted to understand the public’s opinion on digital currency. So, we introduced a series of statements and asked them to rank them from 1 to 16 (1 being the best and 16 being the worst). From these results we computed a mean to understand the general opinion of the different occupations. The lowest mean we got was 1.5 and the highest mean was 9. We interpreted the means that were closer to 1 as positive and the means that were closer to 16 as neutral/slightly negative. Additionally, tests were conducted to make sure that we had sufficient evidence to conclude that the answers to the questions were significant and that the people who conducted the analysis did not answer randomly and that there was a difference between answers. The test we put into place was the following:

\* Null hypothesis (H0): The mean is equal across all groups.

\* Alternative hypothesis (H1): The mean is not equal across all groups. In our test we observed a corresponding p-value of 0.000000025, with a significance level of 1%, and we rejected the null hypothesis that the mean is not equal across all groups. We have sufficient evidence to conclude that answers to the questions are significantly different, which means people that conducted the analyses did not answer randomly and there is a conductible difference between answers.

Following this methodology, we were able to observe the following insights from each occupation:

From our researching findings, we were able to observe that people who work in banks believe that: the digital currencies may not be a modern and innovative solution to store value that is user-friendly for the digital world (3.58) in comparison to people in fin tech. They believe that monetary policy can remain in central banks in case cash is no longer used (3.34) and that the digital currency has the potential to show adaptability of the central bank as a monetary anchor and therefore increase trust in the local currency. On the other hand, it was also interesting to see the statement that “bankers do not believe in applying digital currencies”. For example, it was quite evident that bankers were neutral on the opinion that cutting off traditional banks from the supply of digital currency means that there is no multiplier effect in the economy (7.13). Bankers were also slightly negative on the belief that digital currencies are difficult to design properly to make it good enough to be used as a means of payment, but not so good in order to make it attractive as a store of value, which could cause bank runs (7.34).

On the other hand, people who worked in the Central Bank believed that it would be difficult to make it good enough to be used as a means of payment, and not so good in order to make it attractive as a store of value, which could cause bank runs. They were also sceptical about issues that pertain to security when it came to digital currencies. Central Bankers believed that the CBDCs could be vulnerable to cyber-attacks, meaning people would trust the CBDC less, CBDCs could be used as a surveillance method by rogue governments, and that having a digital currency will require a strict auditing and protection system as the system relies on people for technical capabilities where an employee can easily transfer money to their own account. All these answers had a mean of 1.5. On the other hand, it was interesting to see that Central Bankers for the most part did not believe that implementing a digital currency could lessen the risk of money laundering (9).



Lastly, Fintech and Digital Bankers were mostly concerned about the innovation side of digital currencies, since that is their main differentiator from other bankers. For example, they agreed with the fact that a digital currency would be a modern and innovative solution to store value and one that is user friendly for the digital world (2.66). They also believe that digital currencies could ease money transformation by tracking technology, which allows legal cases to be solved more accurately (3.13). On the other hand, they mostly disagreed with the statement that cutting off traditional banks from the supply of digital currency means that there is no multiplier effect in the economy (7.73). In addition to these tests, we have found through external research that Fintech and Digital Bankers are less worried about privacy as they want to use the data to make attractive and personalized offerings to their customers. This serves to create competitive advantages between industry players.

It was also interesting to see what the public (people who did not work in the financial industry) thought and that they can perfectly be used as a control group for our analysis and results, as for the most part, the mean of the answers was closer to a neutral response, which means that people did not agree amongst themselves. The opinion that received the most positive feedback was the belief that a digital currency could be a modern and innovative solution to store value that is user friendly for the digital world 4.78. They also believed that digital currency eases money transformation by a tracking technology which allows legal cases to be solved more accurately 4.65. On the other hand, it was surprising to see that, in general, people do not believe that CBDCs could be vulnerable to cyberattacks, meaning people would trust the CBDC less (8.15) and CBDCs could be used as a surveillance method by rogue governments (8.26).

## 5. Conclusions

We observed interesting relationships between the way that the different parties reacted to the questions. For example, while Fintech, Digital Bankers and Bankers agree that digital currencies could lessen the risk of money laundering, Central Bankers do not believe this is the case. On the other hand, Central Bankers believe that cutting off traditional banks from the supply of digital currency means that there is no multiplier effect in the economy. Bankers, people in Fintech and Digital Bankers and the general public do not believe so. On the other hand, while Central Banks are certain that banks will want to monetize the data generated with CBDC, potentially jeopardizing data privacy with a 2.5 mean, Banks, Fintechs and Digital Bankers are not so certain (5.86 and 5.13 average). There were 375 answers where all the parties agreed with (5.44, 5 and 5.46 mean) where it was stated that credit card companies like Visa and Mastercard will lose up to 40% of customer transaction information if CBDC replaces credit card. When comparing with the general opinion of people who did not work in the financial sector, we could see that they did not agree with the people from Banks, Central Bank or Fintechs and Digital Banks. There were two instances where the bankers and the public agreed, which was that they do not believe that a digital currency would be difficult to design properly to make it good enough to be used as a means of payment, but not so good to make it attractive as a store of value, which could cause bank runs (7.34 and 7.55). They also do not believe that it would require strict auditing and a protection system as the system relies on people for technical capabilities where an employee can easily transfer money to their own account (5.17 and 5.92).

Finally, we understand the limitation of our data selection not being completely random, but in this study, we were able to observe statistically different levels of acceptance/willingness for a CBDC from Central Bankers, Bankers, Fintech and the public. It appears that a CBDC is a promising concept as long as it is built with all stakeholders in mind and carefully. Creating a new currency and thus a form of payment that is potentially vulnerable is a hard and arduous task that must take many factors into consideration.

## 6. Future work

We welcome researchers to use this data (Gadi and Sicilia 2022a) in their analysis in order to improve their understanding of CBDC, its opportunities, risks, limitations and obstacles. From our side, we would like to continue to further explore the differences of opinion when it comes to people working in banks, Fintechs, finance in general and the general public, and for that we invite the reader to answer the ongoing survey at: <https://forms.gle/sCqMG56xC6TCTFB97>

The survey includes developing and non-developing countries results, however, it did not take into account CBDC being issued for financial inclusion purposes (general trigger in certain regions), and this is certainly an element for future investigations.

## Declaration of Interest

The authors declare that there are no conflicts interest.

## Data Availability

N/A.

## References

- Auer, Raphael, and Rainer Böhme. 2021. "Central bank digital currency: the quest for minimally invasive technology." BIS Working Papers No 948. Monetary and Economic Department. <https://www.bis.org/publ/work948.htm>
- Auer, Raphael, Codruta Boar, Giulio Cornelli, Jon Frost, Henry Holden, and Andreas Wehrli. 2021. "CBDCs beyond borders: results from a survey of central banks". BIS Papers No 116.
- Bank for International Settlements (BIS). 2021a. "III. CBDCs: an opportunity for the monetary system". BIS Annual Economic Report. Pp. 65-95. <https://www.bis.org/publ/arpdf/ar2021e3.pdf>
- Bank for International Settlements (BIS). 2021b. "Central bank digital currencies-executive summary." Working Paper. <https://doi.org/w23711>.
- Bruegel. 2021. "Disruption or transformation: the impact of a digital euro on the financial system." YouTube video. <https://www.youtube.com/watch?v=JAmuKWRiqXA>.
- Bordo, Michael D., and Andrew T. Levin. 2017. "Central Bank Digital Currency and the Future of Monetary Policy." Working Paper 23711, National Bureau of Economic Research. <https://doi.org/10.3386/w23711>.
- Digital Euro Association. 2022. Ahead of the Digital Euro. Public Digital Euro Working Group Recommendations. <https://cdn2.hubspot.net/hubfs/7562649/DEA%20Working%20Groups%20Paper%20-%20Ahead%20of%20the%20Digital%20Euro.pdf>
- European Central Bank (ECB). 2020. "Digital euro experimentation scope and key learnings." <https://www.ecb.europa.eu/pub/pdf/other/ecb.digitaleuroscopekeylearnings202107~564d89045e.en.pdf>
- European Central Bank (ECB). 2021a. "Central bank digital currency and the future of monetary policy."

- European Central Bank (ECB). 2021b. "Eurosysteem report on the public consultation on a digital euro." Working Paper 23711. <https://doi.org/10.3386/w23711>.
- European Central Bank (ECB). 2021c. "Occasional paper series central bank digital currency: functional scope, pricing and controls." <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op286~9d472374ea.en.pdf?2dfe373fb889c60a88fa65393caa5255>.
- Gadi, M., and M.-A Sicilia. 2022a. "Central bank digital currency (cbdc) survey results dataset." Available at request to the corresponding author.
- Gadi, M., and M.-A Sicilia. 2022b. "Central bank digital currency (cbdc) survey form." Google Forms. <https://forms.gle/sCqMG56xC6TCTFB97>.
- Gadi, M., and M.-A Sicilia. 2022. "Central bank digital currency (cbdc) survey python Jupyter notebook analysis." PythonAnywhere. <https://mfalonso.pythonanywhere.com/static/CBDCSurveyEDAV3Last.html>.
- Gross, J., Sedlmeir, J., Babel, M., Bechtel, A., and Schellinger, B. 2021. "Designing a central bank digital currency with support for cash-like privacy." Available at SSRN 3891121. [https://www.researchgate.net/publication/352834619\\_Designing-a-Central-Bank-Digital-Currency-with-Support-for-Cash-Like-Privacypdf](https://www.researchgate.net/publication/352834619_Designing-a-Central-Bank-Digital-Currency-with-Support-for-Cash-Like-Privacypdf)
- Kharpal, Arjun. 2022. "China is pushing for broader use of its digital currency." CNBC. <https://www.cnbc.com/2022/01/11/china-digital-yuan-pboc-to-expand-e-cny-use-but-challenges-remain.html>.
- Lacqua, Francine. 2021. "ECB's Lagarde on inflation target, climate change, digital euro." Bloomberg video. <https://www.bloomberg.com/news/videos/2021-07-11/ecb-s-lagarde-on-inflation-target-climate-change-digital-euro>.
- Mancini Griffoli, Tommaso. 2021. "Dear mom, forget the cash." Finance & Development Magazine (IMF). <https://www.imf.org/external/pubs/ft/fandd/2021/03/what-are-central-bank-digital-currencies-mancini-griffoli.htm>.
- Panetta, Fabio. 2021. "Digital currencies around the world – what are the policy implications?" European Central Bank. <https://www.ecb.europa.eu/press/key/date/2021/html/ecb.sp211109~058e03e806.en.pdf?b4ced0233e495b1ca10d51e85c350f25>.
- Panetta, Fabio. 2021. "The digital euro. A conversation with Fabio Panetta." YouTube video. <https://www.youtube.com/watch?v=0lArRU2NMk>.
- Sandner, P. G., Gross, J., Grale, L., & Schulden, P. 2020. "The digital programmable euro, Libra and CBDC: Implications for European banks." Libra and CBDC: Implications for European Banks (July 29, 2020).