CENTRAL BANK DIGITAL CURRENCY
OPPORTUNITIES, CHALLENGES AND DESIGN

POSITIVE MONEY RESPONSE

Positive Money welcomes the opportunity to respond to the Bank of England's discussion paper on Central Bank Digital Currency (CBDC).

We are a research and campaigning organisation, working towards reform of the money and banking system to support a fair, democratic and sustainable economy. We are funded by trusts, foundations and small donations. We recently published a report that explored how a CBDC could be safely implemented by maximising controllability.[1] We have also published research advocating 'Digital Cash', a specific form of retail CBDC that would meet the needs of vulnerable groups at risk of financial exclusion due to the decline of cash.[2]

Our contribution to this discussion will make the following arguments:

THE BANK OF ENGLAND SHOULD LAUNCH A CBDC.

In support of this, the Bank should conduct further research into CBDC, increase the resources available for this research, and accelerate the development process.

LAUNCHING A CBDC WOULD SIGNIFICANTLY REDUCE THE OVERALL LEVEL OF RISK TO FINANCIAL STABILITY.

A highly controllable CBDC would pose a minimal level of risk itself, and would be an effective response to other sources of risk, such as the accelerating decline of cash caused by the COVID-19 pandemic.

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[1] Money We Trust: Designing Cash's Digital Counterpart (2020). Available at: https://positivemoney.org/money-we-trust/

[2] The Future of Cash (2019), and Digital Cash (2016). Available at: https://positivemoney.org/what-we-do/the-future-of-cash/

CBDC SHOULD NOT BE REGARDED AS A MEANS FOR REDUCING THE BANK OF ENGLAND BASE RATE BEYOND THE ZERO LOWER BOUND.

Targeting a negative base rate implicitly suggests restricting access to cash, which would increase financial stability risks and raise severe privacy concerns.

THE BANK OF ENGLAND SHOULD COORDINATE WITH THE TREASURY TO ESTABLISH A PUBLIC PAYMENTS COMPANY.

This entity would have the specific remit to develop payment services to serve those whose financial services needs are unmet by the private sector, and provide universally accessible CBDC accounts.

OVERVIEW

In section 1, we examine the financial stability risks posed by the accelerating decline of cash, which demonstrate the need for continued access to central bank money. We then review external sources of financial stability risk in section 2, and consider how CBDC would impact those risks. In section 3, we propose design features that would help mitigate the risks of introducing CBDC, and then explore what unconventional monetary policy options CBDC would enable in section 4. Section 5 discusses the appropriate privacy model for CBDC, identifying the simplest steps the Bank can take to protect payments privacy as the demand for digital payment systems increases. In section 6, we propose the Bank of England coordinate with the Treasury to create a public payments platform, and thereby make CBDC inclusive and accessible for all sectors of society. Finally, we review the key points of our submission.

SECTION 1 - ACCESS TO CENTRAL BANK MONEY

As usage of cash declines, is it important to preserve access to central bank money for households and businesses?

The ability to make payments is fundamental to any individual's participation in the economy. This makes fair and low-cost access to payments a fundamental need, like water or electricity. Therefore, it is vitally important the Bank of England continues to provide universal access to central bank money as demand increases for digital payment methods.

We expect to see a sharp collapse in demand for cash over the next two years, with limited prospects for a recovery until the threat of COVID-19 has passed. The recent statistics from Link indicate the scale and speed of cash's collapse: cash withdrawals have fallen by 60% during the lockdown.[3] This dramatic fall comes on top of a pre-existing downward trend in the availability of cash: the number of bank and building society branches in the UK fell by 22% between 2012 and 2019, and in November 2019 there were 60,907 cash machines in the UK, which is 8% fewer than in July 2018.[4] A rebound in demand for cash seems unlikely, given that many businesses and consumers have already adjusted their transaction behaviour and settled into a "new normal". However, research conducted by the independent Access to Cash Review found that "around 17% of the UK population – over 8 million adults – would struggle to cope in a cashless society."[5]

Cash functions as the anchor of the entire monetary system. By committing to providing direct convertibility between CBDC and cash, the Bank of England can ensure this key function of cash is preserved. In addition, the at-par convertibility between claims on the Bank will help secure the value of CBDC, and will help demonstrate the nature of CBDC to the public, making it clear that the Bank is offering a safe and liquid financial asset the public can rely on in times of uncertainty.

The decline of cash is interrelated to the risks posed by the increasing privatisation of the payments system. Due to the lack of a practical public option for holding digital funds, cash's collapse is quickly causing for-profit payment services to capture the market. The Riksbank (central bank of Sweden) has clearly articulated the risks posed by this privatisation,[6] which include a decline in competitiveness, a less stable payments system, and difficulty making payments for certain groups. Full privatisation would therefore risk eroding basic trust in the monetary system as a whole; the Riksbank states that these risks would be "neutralised or mitigated" by launching a CBDC. The use of cash in Sweden has declined dramatically over the last decade, bringing the risks posed by a fully private payments system into sharp focus for the Riksbank.

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[3] Link (2020). "Coronavirus Crisis means cash use down but UK still withdrawing £1billion from ATMs each week." https://www.link.co.uk/about/news/coronavirus-cash-usage-data/
[4] Commons Library Briefing (30 January 2020). Bank branch and ATM statistics. https://commonslibrary.parliament.uk/research-briefings/cbp-8570/
[5] The Access to Cash Review – Final Report (March 2019). https://www.accesstocash.org.uk/#reports
[6] The Riksbank's e-krona project - Report 2 (October 2018). https://www.riksbank.se/globalassets/media/rapporter/e-krona/2018/the-riksbanks-e-krona-project-report-2.pdf

In the UK, the unprecedented sale of the government's first negative interest bond[7] shows a very strong public demand for safe public financial assets that do not promise a return, but are a safe haven from financial risk. CBDC would be well-placed to meet this need. Positive Money sees 3 key benefits to launching CBDC that would enhance monetary and financial stability in the UK:

SECURING UNIVERSAL ACCESS TO CENTRAL BANK MONEY AS A MEANS OF PAYMENT.

This ensures that central bank money can continue to provide an 'anchor' for the monetary system as demand for cash falls.

PROTECTING THE PAYMENTS SYSTEM FROM MULTIPLE AND INTENSIFYING RISKS.

New external sources of risk to financial stability are visible on the horizon, including the economic disruption caused by COVID-19, the economic impacts of Brexit and future climate crises, and the regulatory concerns raised about stablecoin projects such as Facebook's Libra. How CBDC could help mitigate these risks is considered in the next section.

MAKING THE DIGITAL PAYMENTS FAIRER AND MORE INCLUSIVE.

By designing CBDC to be universally accessible, the Bank of England can help meet the needs of vulnerable groups in the UK at risk of financial exclusion, and set a minimum standard of service that private providers must exceed to stay competitive.

If the Bank of England decides that launching a CBDC is the right course of action, it should consider publishing a roadmap that lays out a timeline for moving through the research and implementation phases of the project. Making a public commitment to this timeline would allow external organisations to support the development of CBDC. For example, they could conduct research in parallel, and provide more constructive input to the Bank's decisions. Additional benefits would be improving the transparency of the project and reducing uncertainty surrounding CBDC. In turn, this would incentivise financial sector firms to prepare for shifts in the payments market, and ensure their services meet the minimum standards required to effectively compete.

[7] Bloomberg (20 May 2020). "U.K.'s First Negative-Yielding Bond Sale Sharpens Focus on BOE."
https://www.bloomberg.com/news/articles/2020-05-20/u-k-bond-sale-may-be-first-at-0-fueling-negative-rate-debate

SECTION 2 - RISKS TO FINANCIAL STABILITY

What opportunities could CBDC provide to enhance monetary or financial stability? Does CBDC pose other opportunities or challenges?

The rapid decline of cash has been accelerated by the COVID-19 pandemic, risking the financial exclusion of groups who currently rely on cash. However, there are other external risks to financial stability that CBDC would help mitigate.

Firstly, it's possible the UK will face a no-deal Brexit at the end of the transition period. This outcome has been widely forecast to have a severe negative impact on the UK's economy. In a recent report, the OECD emphasised that "risks around the future relationship with the European Union compound COVID-19-related uncertainty", and that failing to secure a trade deal with the European Union "would have a strongly negative effect on trade and jobs."[8] As the Bank of England explained in its discussion paper, if multiple central banks design CBDC around a common set of standards, they could be linked to enable faster and more efficient cross-border payments. This would clearly be beneficial, as other frictions on international trade are set to increase.

Another high-risk scenario would be a payments landscape dominated by stablecoins, such as Facebook's Libra project. Platforms provided by big tech companies tend to have terms of use that transfer as much risk as possible to the platform's users while maximising value for the company. This includes the financial value, but also much of the data generated by users interacting with the platform. A long list of concerns have been raised about the Libra project specifically, including the centralisation of power, the difficulty of effective regulation, harms resulting from the loss of payments privacy, and both monetary and price stability risks.[9]

A recent poll by the Official Monetary and Financial Institutions Forum, which surveyed 13,000 individuals across 13 countries, found that "central banks have the most significant mandate to issue a digital currency, according to

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[8] OECD Economic Outlook, Volume 2020 Issue 1: Preliminary version. https://www.oecd-ilibrary.org//sites/0d1d1e2e-en/1/3/3/46/index.html?itemId=/content/publication/0d1d1e2e-en&_csp_=bfaa0426ac4b641531f10226ccc9a886&itemIGO=oecd&itemContentType=#

[9] Finance Watch (July 2019). Libra: Heads I win – tails you lose: Ten reasons why Facebook's Libra is a bad idea. https://www.finance-watch.org/wp-content/uploads/2019/07/Libra-Paper_Finance-Watch_EN.pdf

the results of our global opinion poll on trust in payments institutions and payment preferences" and that "major internet technology companies were widely distrusted to issue digital money".[10] The Bank of England should be very wary of enabling such private sector arrangements to develop, and shed any illusions it may have that stablecoins could be a viable substitute for CBDC.

Additionally, another systemic financial crisis could arise from economic depression caused by the COVID-19 pandemic, or the physical and translation risks to financial assets expected to result from climate change.[11] Due to the current over-reliance on private payment methods, these external risks to financial stability also indirectly threaten the UK's payments system. If the government had not intervened in the global financial crisis in 2008 by bailing out commercial banks, the UK's digital payments system would have stopped functioning. Launching a CBDC would therefore improve the resilience of UK payments by providing a backup system for making digital transactions that would continue to function normally during financial crises.

To fulfil its mandate and protect financial stability, the Bank of England must provide a public means of payment that is shielded from systemic crises in the financial sector. In a payments landscape dominated by digital forms of money, this inevitably means launching a CBDC.

SECTION 3 - MONETARY POLICY

What are the most significant risks CBDC could pose to monetary policy implementation, and how could those risks be addressed?

The Bank of England should seek to maximise the controllability of CBDC, and thereby minimise the risks of commercial bank disintermediation. This can be done by applying a variable interest rate to CBDC, and applying differentiated rates of interest beyond specific thresholds. These thresholds can then be adjusted by the Bank to best fulfil its objectives of financial and price stability.

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[10] Pierre Ortlieb, OMFIF (19 February 2020). Central banks garner greatest confidence for digital money issuance. https://www.omfif.org/analysis/central-banks-garner-greatest-confidence-for-digital-money-issuance/

[11] Bolton et al (January 2020). The green swan: central banking and financial stability in the age of climate change. https://www.bis.org/publ/othp31.pdf

For example, an interest rate of 0% could be applied to the first £2400 in a CBDC account (this figure is equivalent to the average weekly household expenditure on goods and services in the UK[12]). Applying a negative rate to money held in CBDC accounts that surpassed this threshold would create an adjustable disincentive for holding amounts of CBDC that would not normally be held in cash.[13]

If the Bank of England judged that CBDC was overly competitive with private payment methods, they could further decrease the interest rate. Alternatively, if the Bank judged that CBDC was not competitive enough, it would have a range of options to consider: the threshold for the negative rate could be increased, or a slightly positive rate could be set for the lowest tier. This would apply competitive pressure to financial sector firms, compelling them to offer a better rate of return to customers. These adjustable tiers of remuneration would make CBDC more controllable, expand the Bank's monetary policy toolkit, and reduce the risk of commercial bank disintermediation.

This approach would also facilitate the Bank's use of forward guidance, as public-facing indicators could be established that signal the Bank's intentions to adjust the remuneration for different tiers of CBDC. For this approach to be successful, we recommend the Bank of England commit to a minimum quantity of CBDC that would be guaranteed perpetual immunity to negative rates, in order to secure public confidence in CBDC as a reliable means of payment.

Further control over CBDC could be asserted by applying 'soft limits' to the exchange of commercial bank deposits for CBDC. These could parallel those of withdrawing cash, such as limiting the amount available for conversion within a particular time frame, and allowing commercial banks to reserve the option of temporarily halting conversions of bank deposits to CBDC.

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[12] Office for National Statistics (2019). Family spending in the UK: April 2017 to March 2018. https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/expenditure/bulletins/familyspendingintheuk/financialyearending2018

[13] This more targeted use of a negative interest rate as a precautionary measure against commercial bank disintermediation does not rely on restricting access to cash. Instead, it would allow the Bank of England to adjust the competitiveness of CBDC in relation to both cash and bank deposits.

SECTION 4 - UNCONVENTIONAL MONETARY POLICY

How could CBDC affect the portfolio of unconventional monetary policy tools available to the central bank?

We advise against launching CBDC as a means of reducing the Bank rate beyond the zero lower bound. Enforcing a substantially negative Bank rate implicitly suggests restricting access to cash. This would increase financial stability risk, as cash is the primary anchor of trust for the monetary system. It would also raise severe privacy concerns, as cash is the most accessible and inclusive option for making safe anonymous transactions. Furthermore, the stated objective of negative interest rates is stimulating commercial bank lending, which applies upward pressure to the net level of private debt. High private debt levels are already a significant source of financial stability risk, making this a flawed approach to preserving financial stability. Negative rates also fundamentally rely on the confidence of commercial banks in turning a profit, which may be lacking in the current economic climate.

However, a retail CBDC would be a very effective transmission mechanism for helicopter money. Making payments of CBDC to all eligible UK citizens would be an effective way to increase aggregate demand. Having suitable infrastructure to make such helicopter drops safely and securely would make it easier for the Bank of England to meet its monetary policy target of price stability. After the UK's COVID-19 lockdown is fully lifted, economic activity is likely to remain suppressed.[14] With interest rates already at a historic low[15] of 0.1%, it's clear that conventional monetary policy tools have already been pushed to their limits. ***By distributing helicopter money to CBDC accounts, the Bank of England could expect to boost aggregate demand without increasing private sector debt.***

These helicopter funds may also be used by recipients to pay down their existing debts, which could alleviate the excessive debt burden on UK households. Between April 2016 to March 2018, 7% of all households with property debt considered their debt to be a "heavy burden", and a further 30% considered it to be "somewhat of a burden".[16] This would also have the

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[14] Resolution Foundation (14 May 2020). The economic effects of coronavirus in the UK - Utilising timely economic indicators. https://www.resolutionfoundation.org/publications/the-economic-effects-of-coronavirus-in-the-uk/

[15] Official Bank Rate, as of 19 March 2020. https://www.bankofengland.co.uk/boeapps/database/Bank-Rate.asp

[16] Office for National Statistics (December 2019). Household debt in Great Britain: April 2016 to March 2018. Section 5: Debt Burden and Problem Debt.

effect of improving financial stability: a high burden of private sector debt amplifies the negative effects of economic shocks, such as those expected to arise from COVID-19 and Brexit.

SECTION 5 - PROTECTING PAYMENTS PRIVACY

What is the appropriate privacy model for CBDC?

Safeguarding access to cash and committing to the direct convertibility of CBDC to cash would reduce the pressure on the Bank of England to navigate difficult privacy and security trade-offs, as cash would continue to provide the capacity for making anonymous transactions with central bank money. These two actions are the simplest and most effective way the Bank can protect payments privacy in the UK. Additionally, we recommend the Bank conducts further research into the technical, institutional and legislative challenges surrounding fully anonymous transactions with CBDC.

Positive Money's position is that CBDC should be implemented with the ***capacity*** for making transactions with a high level of privacy, or at the very minimum the capacity to be updated or extended to offer such functionality in the future. Even if this functionality is never provided to end users due to security concerns, it should remain an option at a technological level. ***It should not be ruled out due to technical considerations, as this would result in privacy concerns being dismissed by a technocratic decision.*** Instead, the decision of its availability should be discussed in Parliament and rest with the government.

The Bank of England should also seek to maximise public engagement with this question and ensure the decision-making process is as transparent and accountable as possible. We recommend the Bank takes into consideration the many types of problems and harms that constitute privacy violations[17], and that it makes every effort to avoid such negative outcomes being enabled by a flawed CBDC implementation.

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https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/bulletins/householddebtingreatbritain/april2016tomarch2018

[17] Solove, Daniel J., 'I've Got Nothing to Hide' and Other Misunderstandings of Privacy. San Diego Law Review, Vol. 44, p. 745, 2007; GWU Law School Public Law Research Paper No. 289. Available at SSRN: https://ssrn.com/abstract=998565

SECTION 6 - ESTABLISHING A PUBLIC PAYMENTS COMPANY

What would be needed to ensure that CBDC would be inclusive and accessible by all sectors of society in the UK?

The public-private partnership model put forward by the Bank in this discussion paper can be expected to spur innovation and reduce the barriers to entry for new payment providers, who could be specialised to meet the needs of groups who fall outside of existing financial sector profit models. They would therefore be able to provide services that meet the specific needs of those groups more efficiently. This would increase financial inclusion, and help make the payments market more competitive.

However, the Bank of England should not rely exclusively on the private sector to meet the needs of such financially excluded groups. Currently, cash sets a 'competition floor' for the payments market, above which private sector payment methods must compete. This guarantees a minimum standard of service, as excessive prices and poor customer service can deter potential customers who find cash better meets their needs. But if access to cash declines to critical levels, everyone who currently relies on cash would be forced to adopt digital payment methods in some form. A recent bulletin from the Bank of International Settlements posited that the accelerated shift away from cash "could open a divide in access to payments instruments, which could negatively impact unbanked and older consumers."[18] This sector of society could become a 'captive market', and may struggle to navigate the complexity of choosing between the various private payment providers, making them vulnerable to exploitation.

The public-private partnership model explored in the Bank's discussion paper would be a much more positive direction than a fully privatised system. However, ***it runs the risk of failing to make the payments system accessible to all sectors of society***. In order to safeguard fair and universal access to making payments, there must also be a way to transact using CBDC that does not rely on extracting value[19] from the user. For the millions of people who currently rely on cash, a fully privatised payments system would mean financial exclusion and exploitative standards of service. The impact on the private financial sector, while also a very important consideration, should be regarded as a secondary concern. The

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[18] BIS Bulletin No 3 - Covid-19, cash, and the future of payments. https://www.bis.org/publ/bisbull03.pdf

[19] This extracted value could be monetary, in the form of transaction fees or service subscription fees. Alternatively, it could be informational: for example, the aggregation of personal payments data for marketing purposes.

primary purpose for the Bank implementing CBDC should be providing universal access to risk-free savings and payments.

We propose that a public payments company be created to provide access to CBDC, alongside private sector services. This organisation would have a specific remit to serve the payment needs of financially excluded groups, such as those who currently rely on the UK's cash system. The Bank of England should coordinate with the Treasury to determine which groups in society are the most in need of additional support to make payments, and make every effort to prevent such groups being exploited or financially excluded by changes to our payments system.

The design process for such an institution should be guided from the 'bottom up' by engagement with stakeholder groups who represent the disadvantaged sectors of society. While Positive Money's view is the Treasury should set up and lead this project, advice and support from the Bank of England would be instrumental for its success. This inclusion of a publicly owned provider of digital cash accounts would safeguard fair and universal access to digital payments in the future.

KEY TAKEAWAYS

The Bank of England should launch a CBDC and consider publishing a roadmap that lays out a timeframe for research and implementation.

CBDC should take the form of 'Digital Cash'. This form of retail CBDC would be competitive as a medium of exchange, meaning private payment providers would be compelled to offer a fair standard of service. In this form, CBDC would provide unique benefits to improve UK payments.

There are multiple and increasing risks to financial stability from external sources that CBDC would help mitigate, and highly controllable CBDC would itself pose a minimal amount of risk. The Bank should draw from diverse perspectives beyond the financial sector to assess the net effect of CBDC on financial stability.

CBDC should not be regarded as a means for reducing interest rates beyond the zero lower bound, as access to cash must be protected. Relying on rising private debt to conduct effective monetary policy would itself pose financial stability risks.

The Bank should consider how CBDC could be a suitable means of transmission for helicopter money, which would be a safer way to boost aggregate demand, as it would not increase the net level of private debt.

The Bank of England should coordinate with the Treasury to establish a public payments company, with a remit to provide CBDC account services without extracting value from the users. This would make CBDC inclusive and accessible to all sectors of society.

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