

Positive Money response to ‘The digital pound: A new form of money for households and businesses?’

Positive Money welcomes the opportunity to respond to HM Treasury and the Bank of England’s consultation on the digital pound.

We are a not-for-profit 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 charitable trusts, foundations and small donations.

A number of points made in this submission are also echoed in an additional [joint statement](#) from civil society stakeholders and experts from academia.

Key points

1. We share the consultation paper’s assessment that a digital pound is likely to be necessary, alongside physical cash, to anchor the monetary system. We also believe the introduction of a digital pound would provide considerable benefits to the UK’s payments system.
2. We agree that private sector digital wallet providers should not hold end users’ funds directly on their balance sheets, however we have concerns about the reliance on private PSPs to provide access to the digital pound under the Bank of England’s platform model.
3. We agree that the Bank should not have access to users’ personal data, and should only be able to see anonymised transaction data and aggregated system-wide data for the running of the core ledger. Furthermore, we believe a bearer instrument version of the digital pound is necessary to address widespread privacy concerns surrounding digital payments.
4. We support a tiered approach if this would allow users to access a digital pound with more flexible identity requirements. In particular, we would support the introduction of a tier that would allow users to make small transactions without identification.
5. We support the use of the various privacy-enhancing technologies the Bank is considering. The digital pound should offer the same level of privacy as physical cash.
6. Offline peer-to-peer transactions should be considered a high priority, alongside in-store, online and person-to-person payments.
7. We believe limits on holdings are only appropriate if deemed necessary to prevent acute financial stability risks, though we contend there are more optimal ways of mitigating these risks without compromising key objectives for the digital pound, such as uniformity. If a deposit limit is deemed necessary, we would support a limit in the upper range, which should then be phased out following the transition period.
8. Acceptance of a digital pound should be as wide as possible to ensure uniformity in money and payments, and as such we would not support restrictions on corporates being able to hold digital pounds.

9. We support the proposal that non-UK residents should have access to the digital pound on the same basis as UK residents.
10. We have concerns that the proposed design for the digital pound may not meet its objectives, including maintaining uniformity and trust in money. However we believe there are ways in which these objectives, and other objectives such as increasing efficiency, choice and innovation in payments.
11. We propose that a free public option for accessing the digital pound, as well as a bearer instrument version, will help maximise financial inclusion.
12. The reliance on Payment Service Providers to act as intermediaries under the proposed 'platform' model could provide barriers to people with protected characteristics accessing a digital pound.

1. Do you have comments on how trends in payments may evolve and the opportunities and risks that they may entail?

The ability to convert privately-issued forms of money (i.e bank deposits) into risk-free publicly issued money (i.e cash) is vital for maintaining trust in the monetary system. With the decline of the cash network, and with many businesses refusing to accept cash payments, the public is losing access to public money, and the monetary system risks losing this vital anchor of trust.

With the emergence of new forms of private money, such as stablecoins, alongside bank deposits and e-money, we risk seeing an increasingly fragmented money and payments system. Convertibility into a risk-free asset like the digital pound is therefore crucial for ensuring uniformity in money and payments.

We therefore share the consultation paper's assessment that a digital pound is likely to be necessary, alongside physical cash, to anchor the monetary system.

As well as ensuring access to public money and anchoring the monetary system, a digital pound offers considerable opportunities for improving the payment system. Merchant service charges for payments on bank rails remain expensive, particularly for smaller businesses, with no sign of greater 'innovation' bringing down costs.¹ This is due to an overly concentrated payments market, as illustrated by the duopoly enjoyed by Visa and Mastercard. Moreover, as the Bank for International Settlements (BIS) warns, the entrance of big tech into the payments market may lead to entrenched market power and even higher fees, with large players able to use their access to user data to achieve dominant positions.² As the FCA has also warned, the entrance of big tech into financial services could mean poorer outcomes for consumers, as these firms have even fewer incentives to meet the needs of customers.³ BIS therefore suggests that a "vicious circle" of data silos, market power and anti-competitive practices could be avoided by introducing a CBDC, which would be conducive to a virtuous circle of greater access, lower costs and better services.

¹ [Seizing the Opportunities from Digital Finance - Speech by Andy Haldane - Bank of England](#)

² [III. CBDCs: an opportunity for the monetary system](#)

³ [DP22/5: The potential competition impacts of Big Tech entry and expansion in retail financial services | FCA](#)

As well as harming competition and innovation, new cryptoassets could take advantage of regulatory arbitrage to act as 'shadow money'. A digital pound can play a key role in ensuring uniformity between these different forms of money. Private digital currencies issued by non-banks may also present disintermediation risks for incumbent banks, but it is worth noting that greater disintermediation may occur with or without the introduction of new forms of money, as market-based finance is already playing an increasingly vital role in providing investment to the real economy, while banks have consistently failed to meet these needs, with only a small fraction of lending going towards non-financial firms.

A digital pound could increase the efficiency and reduce the costs of payments by allowing a more direct form of settlement, reducing the need for intermediaries. These benefits could be maximised with a truly peer-to-peer form of digital pound, such as a token-based e-cash model.

If cash continues to decline and the market for deposits remains overly concentrated, the UK government and the public will surrender increasingly large seigniorage revenue to commercial banks. The New Economics Foundation and Copenhagen Business School estimated in 2017 that if 30% of deposits were converted to a CBDC, the UK government would have saved £182bn in interest payments between 1998 and 2016 - equating to 1.8% of total government expenditure each year on average.⁴ This figure is likely much higher today, given recent interest rate increases.

Falling cash availability and acceptance also has significant implications for privacy, as the public may be unable to make payments free from surveillance by both state and private actors. A digital version of cash which replicates the functionality of physical notes and coins in allowing low value, low frequency transactions that do not collect consumer data is therefore important for privacy and civil liberties.

2. Do you have comments on our proposition for the roles and responsibilities of private sector digital wallets as set out in the platform model? Do you agree that private sector digital wallet providers should not hold end users' funds directly on their balance sheets?

We agree that private sector digital wallet providers should not hold end users' funds directly on their balance sheets, as this would mean users' ability to access their funds would be dependent on the solvency of intermediaries. However, we have concerns with the reliance of the Bank's platform model on private sector payment service providers (PSPs) to provide access to a digital pound.

As BIS explains, private PSPs often do not cater sufficiently to lower-income individuals, migrants and other vulnerable groups, due in part to market power and low expected margins.⁵ Such concerns have been echoed by Christine Lagarde who, when managing director of the IMF, remarked that "banks are not exactly rushing to serve poor and rural

⁴ [Making money from making money | New Economics Foundation](#)

⁵ [III. CBDCs: an opportunity for the monetary system](#)

populations.”⁶ Low-income groups who are less able to afford transaction or subscription fees are likely to be compelled to accept more invasive levels of private sector surveillance, as for-profit PSPs with ‘free’ data-driven profit models would be their only option for accessing the digital pound. Alongside private sector digital wallet providers, there should also be a public option for people who want to access a digital pound without handing over fees or their data for PSPs to monetise, as described further in our response to question 11.

3. Do you agree that the Bank should not have access to users’ personal data, but instead see anonymised transaction data and aggregated system-wide data for the running of the core ledger? What views do you have on a privacy-enhancing digital pound?

We agree that the Bank should not have access to users’ personal data, and should only be able to see anonymised transaction data and aggregated system-wide data for the running of the core ledger.

Widespread concerns over privacy threaten to undermine trust in a digital pound, which could prove fatal to its success as a monetary instrument. We therefore view the introduction of a privacy-enhancing digital pound as crucial for HM Treasury and the Bank of England’s objectives. We would favour an ‘e-cash’ model that replicates the key functions of physical cash in digital form, as a publicly issued bearer instrument that allows peer-to-peer settlement of small transactions with no fees and without collecting consumer data. There are a number of templates for such a system utilising different - often complementary - technologies, including secured hardware,⁷ public-key digital blind signatures,⁸ distributed ledger technology (DLT),⁹ and aggregated tokens.¹⁰ Such a system could offer cash-like privacy for payers making small transactions, while maintaining a record of income for payees to safeguard against economic crime risks. By providing income transparency, e-cash could in fact aid efforts to combat money laundering and tax evasion, while offering the general public greater privacy.

4. What are your views on the provision and utility of tiered access to the digital pound that is linked to user identity information?

We would support a tiered approach if this would allow users to access a digital pound with more flexible identity requirements. In particular, we would support the introduction of a tier that would allow users to make small transactions without providing any identity information. As with the e-cash proposal, this could take the form of a bearer instrument, allowing residents lacking proof of identity to still use a digital pound. The regulatory requirements for these low value, low frequency and offline transactions should be comparable with the requirements for physical cash.

⁶ [Winds of Change: The Case for New Digital Currency](#)

⁷ [The ECASH Act](#)

⁸ [How to issue a central bank digital currency](#)

⁹ [A Scalable Architecture for Electronic Payments](#)

¹⁰ <https://eduard.dejongfrz.nl/papers/latest-kingwillreturn.pdf>

5. What views do you have on the embedding of privacy-enhancing techniques to give users more control of the level of privacy that they can ascribe to their personal transactions data?

The Bank's proposed privacy-enhancing techniques are positive steps, and would set a higher bar for privacy when making digital payments than is currently offered by major players. The feature of temporary aliases for making payments explored in the Bank's technology paper would give people new and better options to protect their identities and personal data.

However, the Bank's proposed design would fall far short of the level of privacy offered by physical cash, and notable public concern has been expressed that a digital pound will not deliver on privacy.

We support the use of the various privacy-enhancing technologies the Bank considers in the consultations accompanying technology paper. If these are combined with a versatile alias service, offline payments via a bearer instrument form, and an appropriate regulatory framework, the digital pound could have substantial social benefits in terms of protecting fundamental privacy rights.

6. Do you have comments on our proposal that in-store, online and person-to-person payments should be highest priority payments in scope? Are any other payments in scope which need further work?

Offline peer-to-peer transactions should also be considered a high priority, and would be a key use case for a digital pound, especially if physical cash becomes a more marginal payment method. The Bank should allocate resources to researching a prototype version of a digital pound that supports offline transactions.

The Bank should conduct further analysis and experimentation to identify a viable approach for minimising the risk of double-spending for offline payments. However, the Bank should also review which regulatory requirements offline payments would be required to comply with within this research. Proposals such as the eCash 2.0 model¹¹ illustrate the wider range of approaches to high-privacy offline transactions that comply with regulatory requirements analogous to those of physical cash. Within the research and development of offline transaction prototypes, the issues of double-spend prevention, offline transactions, privacy and the regulatory environment should be assessed holistically, and not siloed as separate issues.

The design features that would enable robust offline transactions are likely to complement and overlap with features that enable high privacy transactions, such as supporting transactions taking place independently from the core ledger, and with minimal data collection. Developing a working prototype for offline transactions could therefore be an opportunity for the Bank to explore the implementation of privacy-enhancing technologies.

¹¹ [eCash 2.0](#)

7. What do you consider to be the appropriate level of limits on individual's holdings in transition? Do you agree with our proposed limits within the £10,000–£20,000 range? Do you have views on the benefits and risks of a lower limit, such as £5,000?

We believe limits on holdings are only appropriate if deemed necessary to prevent acute financial stability risks, namely banks being unable to meet their obligations to depositors in the event of a sudden 'run' to a digital pound. However, we note that research from the Bank of Canada - a country with a relatively similar banking structure to the UK - indicates that even under extreme scenarios banks would be able to cover large outflows to a CBDC.¹² Further research suggests that a CBDC would be unlikely to increase the risks of bank runs, and could in fact increase the resilience of the financial system.¹³

Moreover, the central bank can always provide funding via the discount window, provided that banks have sufficient suitable collateral.¹⁴ Bank deposit liabilities to depositors could simply be converted into discount window liabilities owed to the central bank.

Alternatively, rather than limits, a more optimal way of ensuring financial stability in the transition to a digital pound (and more generally) would be the introduction of reforms put forward by former Bank of England policymakers Sir Paul Tucker¹⁵ and Lord Mervyn King¹⁶ that would require banks to hold sufficient collateral in order to cover their short-term deposits. With such reforms in place, there should be no risk of sudden outflows to a digital pound threatening financial stability.

Deposit limits risk otherwise threatening the potential utility of a digital pound. Under the UK's £85,000 deposit protection limit, a third of UK deposits are uninsured, and thus particularly exposed to credit, market and liquidity risks. A digital pound could therefore offer a means for households and firms to safely hold money balances without imposing further costs on society via subsidies to commercial banks.

As the consultation paper recognises, "For the digital pound to play the role that cash plays in anchoring the monetary system, it needs to be usable and sufficiently adopted by households and businesses." As well as limiting utility, deposit limits may also therefore risk undermining a key objective for the digital pound - that of maintaining uniformity and trust in money. As Michael Kumhof and Clare Noone argue, insufficient caps would reduce the desirability of a CBDC, causing it not to trade at par with other forms of money.¹⁷ Such an imposition of scarcity without the ability to influence the value of a digital pound through the interest rate would have undesirable consequences regarding its parity with other monetary instruments.

Deposit limits may make more sense if the goal is to mitigate the risk of disintermediation, though this would amount to implicitly protecting the business model of commercial banks as

¹² [Resilience of bank liquidity ratios in the presence of a central bank digital currency - Bank of Canada](#)

¹³ [Central bank digital currencies: motives, economic implications and the research frontier](#)

¹⁴ For an illustration of how this could work in the transition to a CBDC see R. Grey, '[Banking in a Digital Fiat Currency Regime](#)'

¹⁵ [Former BoE deputy calls for radical overhaul of bank funding | Financial Times](#)

¹⁶ [We need a new approach to bank regulation | Financial Times](#)

¹⁷ [Central bank digital currencies — Design principles for financial stability](#)

firms that are able to use their central role in processing payments to subsidise their lending activities, with suboptimal consequences for the rest of society. The consultation paper states that the Bank of England “does not, however, seek to preserve the status quo structure of the financial system or to protect any business model within the commercial banking sector from the impact of technological innovation and competition.”¹⁸ It would therefore seem contradictory if the Bank is seeking to constrain the benefits of a digital pound to households and businesses in order to protect the banking system’s role in providing credit to the economy, through measures such as limits on holdings. As explored above, there are ways in which the central bank can mitigate the risks of banks losing access to cheap deposit funding and the impact this may have on the provision of credit to the economy. Furthermore, it should be noted that banks are at present failing to meet the investment needs of the real economy,¹⁹ and disintermediation may occur otherwise with the growth of market-based finance and private forms of digital money.

If a deposit limit is deemed necessary, we would support a limit in the upper range, which should then be phased out following the transition period. Lower deposit limits, such as £5,000, would have a greater risk of undermining uniformity, functionality and ultimately trust in a digital pound.

8. Considering our proposal for limits on individual holdings, what views do you have on how corporates’ use of digital pounds should be managed in transition? Should all corporates be able to hold digital pounds, or should some corporates be restricted?

A digital pound could be particularly useful for SMEs who would be able to use it to manage payroll without the risk of funds being lost with bank failures due to the £85,000 deposit protection limit. This is a compelling use case for a CBDC, as illustrated by the collapse of Silicon Valley Bank in the US, where many businesses faced losing significant funds due to their bank’s failure to manage credit risk and the inadequacy of the \$200,000 deposit insurance limit.²⁰ If deposit limits are deemed necessary, we would therefore support a higher limit for corporates’ use of digital pounds. Acceptance of a digital pound should be as wide as possible to ensure uniformity in money and payments, and as such we would not support restrictions on corporates being able to hold digital pounds.

9. Do you have comments on our proposal that non-UK residents should have access to the digital pound, on the same basis as UK residents?

We support the proposal that non-UK residents should have access to the digital pound on the same basis as UK residents. Disallowing non-UK residents from accessing the digital pound would require enforcement that could introduce inefficiencies, and may impede the usefulness of the digital pound for international payments, which has been identified as an important use-case for central bank digital currencies.

¹⁸ This also appears to be contradicted by one of the reasons given not to remunerate a digital pound - to “reduce impacts on the banking sector.”

¹⁹ Less than 10% of banks’ lending has been towards to non-financial firms over recent years, and there remains significant ‘Macmillan gaps’: [Thirty years of hurt, never stopped me dreaming - speech by Andy Haldane](#)

²⁰ <https://www.ft.com/content/c66e6980-2d64-407a-ad79-2d85c3e32e69>

The Bank should also seek to maximise the inclusivity and accessibility of the digital pound, and allowing non-UK residents access will further this objective. The prevention of non-UK residents from using the digital pound would risk worsening financial exclusion, and would be detrimental to the public's perception of the digital pound as a trusted service open to all.

10. Given our primary motivations, does our proposed design for the digital pound meet its objectives?

We have concerns that the proposed design for the digital pound may not meet its objectives. As discussed in our response to question 3, the motivation for maintaining confidence and trust in money may be threatened by the proposed account-based design, due to widespread concerns around privacy. As the consultation paper recognises, trust is of fundamental importance to the functioning of any monetary instrument. A privacy-enhancing bearer instrument ('e-cash') version of the digital pound is therefore crucial. As a P2P payment method that does not require intermediaries, e-cash would also serve the motivation to promote efficiency in payments.

The proposed account-based model may also hinder the motivation to sustain access to UK central bank money, if it is not fully accessible to the whole public. As previously discussed, private sector PIPs may not have a commercial incentive to ensure a digital pound is freely accessible to all users. Therefore we judge a free and inclusive option necessary for this, which could be provided by a public sector institution, as discussed further in our response to question 11. This would also serve the motivation of increasing choice and innovation by providing a competitive floor to encourage private PIPs to increase innovation and the quality of their services.

Likewise, as outlined in our response to question 7, we are concerned that limits may not only constrain the utility and public good benefits of a digital pound, but may also undermine objectives for maintaining uniformity and trust in money. Furthermore, if the functionality of a digital pound is deliberately impaired by limits as well as the absence of remuneration, there is a risk that a digital pound will not be sufficiently adopted by households and businesses to play the role that cash plays in anchoring the monetary system.

11. Which design choices should we consider in order to support financial inclusion?

We are concerned that the account-based digital pound design put forward may replicate existing barriers to financial inclusion. These include ID requirements and the reliance on private sector providers as intermediaries, who have little incentive to ensure their services are accessible to low income groups.

As discussed in our response to question 2, we are concerned that the platform model will reinforce the existing reliance on the private sector to facilitate access to financial services, which has resulted in sub-optimal outcomes for financial inclusion. To reiterate, as the Bank will be relying on private sector PIPs to provide frontend access to a digital pound, users may have to pay fees or surrender personal data to provide revenue for these services. PIPs may also be unlikely to provide face-to-face access to their services, given that even banks are rapidly closing branches across the UK, presenting further challenges to financial inclusion.

To prevent these issues exacerbating financial exclusion, there should therefore be a free public option for digital pound access, which could be funded by the seigniorage generated by issuing a digital pound. This would offer a basic digital pound ‘wallet’ that protects user data with no fees, serving as a benchmark for other PIPs to compete with, which would help foster a virtuous circle of competition and innovation, with better outcomes for consumers. If provided by a trusted public institution with a strong social mission, such as the Post Office, this would not only improve financial inclusion but could also increase trust in a digital pound. The Post Office would be particularly well positioned for this, given that, through banking hub schemes, it is playing an increasingly vital role in providing access to banking services as well as physical cash, and is one of the UK’s most trusted public institutions.²¹

We would also support the Bank of England providing free access to APIs to non-profit and civil society organisations to allow them to develop digital pound services tailored to the needs of the groups they serve.

Any account-based design should also be accompanied by a bearer instrument digital pound, referred to above as ‘e-cash’. This would ensure everyone can access a digital pound, including those who are currently unwilling or unable to use a bank account, and thanks to its P2P nature, will allow payments to be made with no operational cost and with enhanced privacy.

Certain e-cash designs, such as secured hardware or aggregated token solutions, would also enable offline payments. Offline functionality would enhance financial inclusion, ensuring people are able to make electronic payments without access to the internet, especially given that many parts of the UK still do not benefit from blanket reliable internet access. The uncertainty of the future, including increased energy insecurity as well as the prospect of cyberattacks threatening online payment systems also makes offline payments a particularly desirable function that would improve the system’s resilience.

Certain hardware designs, such as cards with e-ink screens displaying a user’s balance, could also enhance the digital pound’s accessibility for those who would otherwise have difficulty relying on smartphones apps.

To help maximise financial inclusion a secured hardware digital pound device should therefore be offered free of charge to all UK residents. As technologist Eduard de Jong has proposed, devices could be preloaded with an amount of spendable currency that exceeds the cost of manufacturing, enabling the costs to be covered by seigniorage.²²

As the European Central Bank has concluded, broad access for consumers can also be ensured by requiring banks and other payment service providers to make a digital euro available to their customers.²³ Introducing the same requirements for the provision of digital pound services would also help support financial inclusion. These requirements would be

²¹ [The Economic and Social Impact of the Post Office](#)

²² <https://eduard.dejongfrz.nl/papers/latest-kingwillreturn.pdf>

²³ [A digital euro: widely available and easy to use](#)

complemented by alias services that improve the digital pound's interoperability with existing systems.

12. The Bank and HM Treasury will have due regard to the public sector equality duty, including considering the impact of proposals for the design of the digital pound on those who share protected characteristics, as provided by the Equality Act 2010. Please indicate if you believe any of the proposals in this Consultation Paper are likely to impact persons who share such protected characteristics and, if so, please explain which groups of persons, what the impact on such groups might be and if you have any views on how impact could be mitigated.

The reliance on Payment Service Providers to act as intermediaries under the proposed 'platform' model could provide barriers to certain groups accessing a digital pound

Such groups may include those with protected characteristics, particularly in regards to age, disability, gender reassignment, sex and race.

We note that many of those with protected characteristics are currently poorly served by the financial system, and are more likely to face financial and digital exclusion. It is important that a digital pound is able to help overcome these barriers rather than reinforce them, though, as discussed in a recent civil society roundtable Positive Money hosted with HM Treasury, it remains unclear to what extent this can be achieved while continuing to rely on for-profit providers to act as intermediaries.

Some of these groups, such as older aged persons and those with disabilities, may find it particularly difficult to access a digital pound without assistance. It is therefore crucial that people are able to access digital pound services in-person. However many PIPs are unlikely to consider it profitable to offer such services - indeed banks are currently cutting their in-person services through branch closures across the country. Institutions driven by social purpose, such as the Post Office or civil society organisations, should therefore be empowered to provide those services to ensure everyone is able to freely access a digital pound. Digital pound hardware can also be designed to meet various accessibility requirements.

A requirement for digital pound transactions to be verified by identification (as in the 'platform' model) could also negatively impact those with protected characteristics. Providing temporary aliases for users that allow digital payments to be made without revealing their identity or personal details to a merchant (or other third party) could have positive social outcomes for groups with protected characteristics who are at greater risk of facing discrimination.