

21 June 2023

Dear Gwyneth and Sir Jon,

**The Payment Systems Regulator (PSR) welcomes your proposal on the potential introduction of a central bank digital currency for the UK ('the digital pound').**

As the regulator for payment systems in the UK, we have statutory objectives to promote effective competition and innovation, and ensure that payment systems are operated and developed in a way that considers and supports the interests of all the businesses and consumers that use them. We support the ongoing work the Bank of England and the Treasury are doing to explore the digital pound and the opportunities it presents. This is an ambitious project, and we look forward to working with the Bank and the Treasury to ensure that the design and implementation of the digital pound delivers in all users' best interests.

The new technology you propose offers the prospect of a new way of making payments in an ever more digital economy – backed by the security of knowing that payment users are using a digital ledger at the Bank of England. A digital pound could ensure that the payments ecosystem retains access to public money, even as cash usage declines, supporting the UK's financial stability in a rapidly evolving payments landscape. We note that there are also opportunities to address some of the risks we see emerging as cash is replaced by digital payments, notably in respect of facilitating offline transactions. The digital pound could help improve the resilience and functionality of payment systems, while increasing competitive pressure and promoting innovation, choice and efficiency.

As the digital pound project moves forward, the PSR is committed to supporting government and the Bank of England so that the programme enhances and complements the UK's payment systems, providing genuine choice across payment mechanisms, and balances the interests of different users.

There are choices ahead on how to best target different payment use cases, as the nature of the benefits and costs associated with realising different use cases are likely to vary. For example, the benefits from wholesale access to a digital pound – to unlock more efficient complex contracts and to support large international payments – are relatively clear. Meanwhile, realising the full benefits of a digital pound in the context of retail transactions will require a range of additional issues – notably relating to consumer protection – to be tackled.

We are working on a series of reforms – including with the Bank of England and the Treasury – that would unlock benefits through greater use of open data, better ways to initiate account-to-account payments, greater consumer protection and improved anti-fraud protection. Account-to account payments, for example, offer the opportunity of greater choice in how to pay and greater competition within systems and between systems. We have had constructive discussions with you on these topics to date and look forward to working with you to shape the development of the digital pound project, so that we build on these benefits.



There are several forthcoming changes to payment systems that will require firms to invest in technology or change their staffing, operations or processes. It is therefore important that we jointly seek to give industry clarity on emerging projects and their desired outcomes, to allow industry to plan accordingly while ensuring commercial sustainability. One element of this is ensuring that the digital pound is technically and strategically coherent with other aspects of the UK's approach to managing payment systems, working in step with existing and future initiatives and fitting comfortably within the UK payment landscape. The potential routes to achieve this will depend on design choices with respect to the functionality and characteristics of the digital pound. In what follows, we have set out some specific considerations to take forward in the next stage of development.

We recognise that the consultation and technology working papers that the Bank and the Treasury published are part of the preparatory work to decide whether to introduce the digital pound and that they outline emerging thinking on the technology underpinning the new digital currency.

We look forward to working closely with you to help produce a refined, technically viable digital currency that takes all users' needs into account.

Yours sincerely

Chris Hemsley  
Managing Director  
Payment Systems Regulator

## Annex: Remarks on the proposals in the consultation document

### **The digital pound could bring a range of benefits, but it is important that further consideration is given to associated design implications to ensure these are realised.**

We believe the digital pound presents a range of opportunities to deliver improved outcomes for users, depending on the way it is designed and the functionalities it offers when launched. For example, it could:

- be a response to imperfect competition in retail payments
- become an accessible form of payment or an asset of last resort if cash availability declines
- provide an alternative to systemic stablecoin systems that may threaten monetary stability

We note that each of the above benefits would have implications on the functionality and design considerations of the digital pound. For example, to promote effective competition and drive down prices in retail payments, the digital pound would need to offer a competitive alternative to cards – for instance, by offering a trusted and widely adopted proposition for businesses and consumers, while outcompeting the functionalities card schemes offer today.

For the digital pound to operate effectively as an ‘asset of last resort’, users would need to be able to transfer money into digital pounds quickly and easily in a range of scenarios, such as in the event of a financial crisis. Meanwhile, to deliver accessibility in response to declining cash use, the digital pound would need to replicate the advantages that cash brings – namely, that cash can be used offline, almost anywhere at any time. Likewise, the digital pound would need to have distinct competitive advantages to prevent the emergence of a systemic stablecoin.

We note that creating a system does not necessarily lead to adoption, competition, and innovation. The digital pound will exist alongside other systems in the payments landscape and will need to both promote effective competition and ensure it does so in a way that enhances the efficiency of the wider ecosystem. We would welcome further discussions with you to clarify the intended rationale and use case of the digital pound, with the benefits that this will deliver.

### **We have identified several key areas for further development in the design phase of the project, specifically: user protection, the assignment of responsibilities and liabilities, the commercial model, user adoption, and functionality.**

We agree with your observation that it is important to get the development of the digital pound right, and ensure sufficient consultation and testing goes into the design of the product. To realise the full potential of the digital pound across a wide set of uses, it will be important to develop an approach to consumer protection, fraud prevention and the use of open data, and for these frameworks to reflect and keep up to date with the uses to which the new digital currency is put. The recent history of UK payment systems illustrates the importance of continuous evolution and ensuring that a payment system’s protections and rules keep pace with its technical capability being deployed to a wider set of payments. Consequently, much of the PSR’s recent work has focused on addressing fraud and other consumer protection risks, as well as unlocking the potential benefits of account-to-account payments and open banking.

These reforms have all required regulatory intervention to secure improved outcomes, reflecting that several payment systems have been affected by coordination problems, misaligned incentives and subsequent risks to innovation and competition. This serves to highlight the need to consider and, where appropriate, introduce minimum standards of access, consumer protection and data availability into future workstreams of the digital pound project.

This need for regulatory design points to an underlying challenge with the development of any new payment system and of the regulatory framework that sits around it – namely, that it is easier to identify the appropriate approach to access, consumer protection, data and interoperability if there is a clear articulation of the payments use cases in advance. However, in most cases, the needs of consumers and businesses and the innovations brought forward over time may well be different from what was expected when the payment system was first developed. This is a challenge today in Faster Payments, and one to which we are alive with the expansion of open banking payments. To manage risks and their potential evolution over time, we are setting up governance arrangements that can amend rules and ensure systems are backed by strong, independent regulatory oversight.

Our main observations so far have been that all payments need certain elements, like customer protection, to ensure they deliver their intended benefits. However, these features become much easier to define once they are designed with a specific use case in mind.

Nonetheless, the approach to designing and implementing a digital pound falls into the category of enabling a system rather than building a proposition, which means that the ecosystem needs to use appropriate enablers to build the proposition itself. At this stage, it may be difficult to anticipate all the use cases for the digital pound, so its features cannot yet be appropriately designed and implemented. The PSR can add real value to the design of the digital pound: we have experience of designing payment systems and setting out Payment System Operator models that are flexible enough to allow rules to be changed once clear use cases emerge.

A further consideration when looking to maximise the potential benefits of the digital pound is interoperability. Interoperability supports adoption and use by maximising access potential for both payers and payees. As the project evolves, the Bank and the Treasury will need to consider how best to secure interoperability – be it between providers, with existing UK systems or with cross-border systems.

We set out our views on the nature of these requirements below.

## Key features of a digital payment system

We have identified five key areas that we have found to be essential to ensuring a digital payment system delivers good outcomes for its users and trust between participants. These are:

- **User protection:** A digital payment system should have clear and appropriate user protections.
- **Responsibilities and liabilities:** All the roles required in a digital payment system should be clear, with responsibilities assigned appropriately, and liability assigned appropriately to align incentives.
- **The commercial model:** Providers should have a commercially viable model, which also supports the right incentives to deliver in users' best interests.
- **User adoption:** To achieve widespread adoption, a digital payment system needs to meet the needs of both those who want to make payments and those who want to receive them.
- **Functionality:** The functionalities of a digital payment system should be appropriate for its intended use and may need to adapt over time.

### **User protection: a digital payment system should have clear and appropriate user protections.**

One of the key requirements of establishing a payment system is building trust across all participants. User protection is an important element of establishing trust, and is typically supported by appropriate, central rules and standards.

The use of a payment system comes with risks for its users, whether from theft or fraud, or from mistakes or unfair practices. While this is true of all payment systems, it becomes particularly important to address the issue of fraud as payment systems are used by wider sets of users: a payment system used by financial institutions and large corporations will need different minimum standards of protection than one used by individuals in their everyday life.

It is important both for the safety of users and for the attractiveness of a payment system that users are appropriately protected and are clear about the levels of protection they have.

Today, consumers likely see a distinction between digital and cash payments; indeed, there is a difference between the physicality of using tangible money to pay for goods and services, and the remoteness of an invisible transaction with an unknown salesperson. It is therefore imperative that payment systems have appropriate protections if they are to engender trust and to be used for unseen third-party provided goods and services. This presents an interesting choice for the development of the digital pound, depending on whether it seeks to replicate the (lower) level of protection afforded by cash transactions, or mirror digital payments protections. Either way, it is important that users understand how the product will be positioned.

It is equally important that those who wish to receive payments are also appropriately protected. For example, in retail transactions, certainty around payment collection and its timing enables merchants to transact with confidence, enabling them to send goods earlier and manage cashflows more efficiently.

As noted above, there are important lessons from the UK's experience in respect of Faster Payments and its lack of appropriate user protection. Authorised Push Payment (APP) scams have grown on Faster Payments, in part reflecting the lack of sufficient rules to deliver appropriate incentives on all parties to tackle fraud and to support prevention efforts through appropriate information sharing. In recent years, we have taken action to curb the rise in APP scams by introducing user protections (such as 'confirmation of payee') that make it harder for fraudsters to trick users, and have set out ambitious plans to improve customer protections in ways that will also improve the incentives on all payment firms to act to prevent fraud from happening in the first place.

To the extent that the digital pound is intended for widespread use by individuals and in retail transactions, it will be important to design these risks out of the system before the system is launched, thereby making the digital pound more robust to these risks.

***Recommendation:***

- It will be important to establish a set of intended uses for the digital pound, so that appropriate rules and minimum standards of behaviour for participants are designed and implemented ahead of launch. This is particularly important where the digital pound is deployed in a consumer and retail context.
- Governance arrangements will likely need to support ongoing modification of rules and be backed by clear regulatory oversight, given the inherent features of payment systems and the risks and issues that such systems typically create.

**Responsibilities and liabilities: all the roles required in a payment system should be clear, with responsibilities assigned appropriately, and liability assigned to drive good outcomes.**

To ensure you build trust between ecosystem participants, it is crucial to address roles and responsibilities early on. It is equally important to decide what role a regulator would play, as supervision alone may not be sufficient. Intervention at scheme level is required to make good conduct a condition of scheme participation, and we look forward to working with you to discuss the aspect of regulation further.

Digital payment systems involve the delivery of a diverse range of activities, from payment acceptance to authorisation, messaging, fee and rules-setting and outlining technical standards (for example, security and messaging standards, operational requirements and associated liabilities); similarly, roles and responsibilities will also be specific to the payment system to which they are attached.

The digital pound will require the roles and responsibilities of system participants to be defined in detail and clearly to all participants. It is especially important to define and agree which organisations will take on the roles of the system operator, platform participants and users, and what their responsibilities will be. In particular, the project should explain who will define technical standards, how ecosystem participants can influence technical standard setting, and who is performing key activities (such as KYC and AML). The system operator may oversee defining the technical standard (e.g., a set of core API functionalities), but additional rules may be needed to specify how ecosystem participants can participate in the standard-setting process, or how technical evolution is managed. For instance, it may be important to clarify which guarantees payment service providers can expect during a transition phase, how long legacy systems will be supported alongside new systems, or whether penalties will be imposed for delays.

It is also important that liabilities are appropriately matched to responsibilities, to ensure risk sits with the organisations best placed to manage it. This helps to provide the right incentives to improve outcomes for end users. Achieving this often requires developing detailed rules on roles, responsibilities and processes that may vary between different use cases. For example, rulebooks of card-based payment systems are typically hundreds of pages in length and detail highly specific use cases, such as pre-authorised payments for petrol at the pump (when the amount due is unknown beforehand and authorisation often needs to be granted offline); open loop payment systems for public transportation (where multiple ‘taps’ need to be tracked until a final fare can be computed); or payments for subscriptions (where the ongoing relationship changes the risk of fraud), among others. The digital pound should ensure that participation rules are appropriate to its use cases.

There are useful lessons from our experience in payment systems when it comes to considering responsibilities and liability. In our account-to-account work we have been looking at how an existing payment system can be applied to a new use case, which meant defining responsibilities for a new system. This has required us to first determine the relevant actors, followed by the capabilities of the relevant organisations and the appropriate allocation of responsibility (who owns the relevant rules, how disputes will be managed). Rules-setting is also a critical part of developing an effective payment system, and we have learned from our work on the account-to-account project that detailed specifications and a clear understanding of who owns the rulebook is needed to create the consistency that interoperability requires. It will be particularly important for the digital pound to ensure interoperability between the digital and non-digital and support the industry to align the digital pound project with the other technologies in which it is investing (for example, digital ID, smart contracts, privacy enhancing technologies (PETs) and zero-trust technologies, to name a few).

Based on our work, we have developed an understanding of how responsibility and liability should be structured and recommend that liability should sit with the people who can respond to incentives to reduce fraud – for example, payment interface providers (PIPs). APP scams are an example of what can occur if liabilities are not allocated in ways that prompt appropriate decision-making by participants. Originally, the liability for losses incurred by APP scams sat with customers, and we did not see sufficient action to address the underlying harm that this also caused. It was then allocated to a group of sending payment firms, which prompted action on prevention by these firms but meant that there are fewer incentives on the receiving banks and building societies to invest in preventative measures.

Furthermore, we consider that there are good reasons for needing to design and implement at least some of these minimum standards and rules centrally. This is a feature of the governance of the account-to-account systems, the oversight and access regime in the designated card schemes, and one of the contributory factors in driving forward open banking in the UK. This oversight and rules-setting function can be undertaken and/or implemented by payment system operators, regulators and/or through legislation.

***Recommendation:***

- The digital pound should ensure that participation rules are appropriate to its use cases.
- There is likely an important role for standards-setting and rules that establish minimum standards of behaviour in any payment system – for example, a system backed by a combination of the governance of the payment system operator, regulatory oversight and legislative backing.

**The commercial model: providers should have both a commercially viable model, and the right incentives to deliver in users’ best interests.**

A sustainable, commercially viable business model ensures firms can continue to invest in new products and innovate to benefit people and businesses. Furthermore, commercial models aligned with desirable user outcomes minimise the need for prescriptive regulatory intervention.

The digital pound envisages that new types of regulated private firms (PIPs) and external service interface providers (ESIPs) will provide services to participants in the digital pound ecosystem. As well as the cost of providing these services, it appears these providers will need to fund the cost of meeting regulatory requirements, which makes it important to ensure there are clear revenue streams to cover their costs. Furthermore, if the digital pound operates via a decentralised system of PIPs, it may have implications on data sharing and the interoperability of interfaces, which the PIPs would also need to consider, making appropriate incentives critical. The consultation paper already identifies several alternatives and, in considering options for the commercial model, it is important that participants’ incentives are aligned with users’ interests. In general, this means ensuring that a better service for all users or improvements in efficiency should translate into more revenue, a setup that will consequently promote competition between participants.

One of the revenue streams proposed is levying a transaction fee on merchants. Merchants already pay a transaction fee for card transactions. The PSR is currently reviewing some of these card fees and has recently directed changes to the market for card-acquiring services to improve competition. As you will be aware, there are also regulatory requirements that cap the level of these fees. As you explore potential revenue streams and the commercial model for the digital pound, it would be worth considering the strengths and weaknesses of existing commercial models and how the digital pound can compete with other forms of payment.

We recently announced – alongside the FCA – the Joint Regulatory Oversight Committee’s (JROC) open banking roadmap. One element of this work is to establish an appropriate commercial model for payments and data within the open banking frameworks. We are commencing work with a focus on Variable Recurring Payments, which will provide learnings that should inform the wider development of this open banking commercial model.

***Recommendation:***

- The correct design of the commercial model can support good outcomes and reduce the need for direct regulatory intervention.
- We are currently developing a commercial model for open banking and reviewing key elements of the commercial model and pricing within the cards market. There is an opportunity to share our learning from this work.



**User adoption: to achieve widespread adoption, digital pound payments will need to meet the needs of both those who want to make payments and those who want to receive them.**

To be successful, any payment system in a two-sided market needs to attract and meet the requirements of both those who want to make and those who want to receive payments.

Due to network effects, adoption by one group increases the value of the payment system to the other group: for example, the greater the number of consumers who carry contactless cards, the higher their adoption by merchants. Similarly, the higher the number of merchants accepting contactless cards, the more it made sense for consumers to carry and use contactless forms of payment.

New payment systems face the problem of incentivising adoption, particularly early adoption, until a critical mass of users on both sides is reached. This is more of an issue where there are larger numbers of users and that those users are different in nature. While a simplification, wholesale payment systems are likely to have fewer of these issues than those deployed for all consumers and in a retail context.

However, there are some tensions that prompt the need to make trade-offs between different users' interests – as a benefit for one user may come at a cost to different users. For example, fraud protection is important for many consumers, but can mean merchants incur additional costs (even if those merchants also benefit from a safe and trusted system overall). Furthermore, given the wide choice of payment systems available, and how well-established and feature-rich some of those are (e.g., cards), achieving and sustaining sufficient scale may prove complex.

In the context of a mass retail payment method, and the issues that need to be addressed, a good case study is the payments service Paym, which was a scheme by which payments could be made using a registered mobile number. While 5.8 million people registered to use the service, Pay.UK and a collection of UK banks and building societies decided to close the service to customers in March 2023, citing low adoption and declining use.<sup>1</sup> There is value in exploring the reasons Paym did not reach critical mass, the factors that contributed to its decline and what lessons the digital pound project can learn from the Paym experience. Potential root causes include different branding between some retail banks and the opt-in nature of the service which limited the initial reach (network) of the service.

As noted above, we are currently exploring many of these issues as part of our work on open banking. The JROC's report *The Future Development of Open Banking in the UK* highlights the range of views and competing considerations involved regarding adoption of open banking.<sup>2</sup> We would be happy to share further insights gained from our work supporting the adoption of account-to-account payments for retail transactions.

As you envisage that the digital pound will be adopted for retail payments, it will be important to consider how to best incentivise consumers' and merchants' adoption and what will be needed to achieve and sustain a sufficient scale of use.

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1 See <https://newseventsinsights.wearepay.uk/media-centre/press-releases/paym-mobile-payments-service-to-close-in-2023/> ('This collective decision reflects the rapid evolution in payments technology and services since Paym's launch in 2014. Payment volumes through Paym have diminished over the past three years as fewer people sign up to use the service.')

2 See *The Future Development of Open Banking in the UK: Final report for the Joint Regulatory Oversight Committee, February 2023*. <https://www.openbanking.org.uk/wp-content/uploads/SWG-Report-The-Future-Development-of-Open-Banking-in-the-UK-Feb-2023.pdf>.

**Recommendation:**

- It will be important to consider how to best incentivise consumers' and merchants' adoption, particularly if the digital pound is to be used for retail payments.

**Functionality: the functionalities of the digital pound should be appropriate for its intended use and may need to adapt over time.**

Different payment systems come with different functionalities, reflecting the original use cases they were designed to support. For example, batch payments offered by Bacs have proved successful for crediting salaries; the speed and convenience of card payments is valuable for retail payments; and the NPA will better support some types of recurring payments. It is important for the attractiveness of a payment system to offer functionalities that are appropriate for its use.

In particular, the functionalities of a payment system determine its accessibility to various individuals and population groups. Given the decline of cash use and the lack of alternative offline payment systems, the aspiration underpinning the project is that the digital pound may provide an additional option for some financially excluded groups.

As you have already recognised, with the digitisation of financial services, it has become clear that some financial exclusion is ultimately driven by digital exclusion. For this reason, it is important to consider whether offline capabilities should be among the functionalities offered by the digital pound. The decline in the use of cash is having the effect of reducing the proportion of transactions that can take place without a data connection. An offline digital pound capability could meet this need. This approach would also deliver beneficial resilience effects for the payment ecosystem as a whole.

More generally, there are current gaps in the services provided by payment firms that make the adoption of digital payments more difficult for some groups, notably those that are already at risk of financial exclusion. Consequently, the PSR has been exploring the barriers that stop people who rely on cash from using digital payments. The PSR Panel's Digital Payments Initiative report has identified the factors driving consumers' continued reliance on cash, including distrust of digital payments because of concerns about fraud, personal error or privacy, and a lack of access to digital and financial infrastructure. The Panel also found that small businesses continue to rely on cash for several reasons, including an inability to secure the funds from digital sales rapidly enough for cashflow purposes or being unable to secure digital payment services at prices they are willing to pay for the value of services offered.

Reflecting this, it is important to consider what factors drive exclusion, and how the digital pound's functionalities can potentially ameliorate those barriers to inclusion.

A further consideration in the context of functionality is the extent to which the payment system can adapt and change over time. We have seen the importance of this in the evolution of Faster Payments. For example, to introduce confirmation-of-payee into the system and increase the flow of information between parties to prevent fraud.

One of the other significant changes in payments capabilities has been implemented through open banking. This is introducing new ways of initiating payments and ways for customers to grant controlled access to the data in their payment accounts. This is opening valuable new services and has the prospect of supporting the transition to a future of 'open finance' and beyond. This openness of data should allow services that make it easier for individuals to shop around, understand and be advised on their finances, and to receive tailored support (including when individuals are vulnerable).

To the extent that the digital pound becomes a mainstream payment method for individuals and in retail contexts, it will be important to design into the framework an open data and open payments approach, to replicate and build on the benefits that open banking is seeking to deliver.

***Recommendation:***

- It is important to consider what factors drive exclusion, and the role that the digital pound might play in addressing these.
- There may be benefits to making the digital pound available offline, to improve its accessibility and to deliver wider resilience benefits to the payments ecosystem.
- To the extent that the digital pound is to be used for a wide range of payments by consumers, it will be important to design an open data and open payments approach into the framework, to replicate and build on the benefits that open banking is seeking to deliver.

The digital pound is a new payment system that is being introduced in an existing, complex ecosystem; as such, it will need to consider a wide range of factors, from the way it will promote both competition within systems and between systems while protecting users and giving industry the certainty to invest in its development, to its intended use cases and functionalities, its adoption strategy, and the way it is regulated. The recommendations made above stem from our findings in linked areas and aim to guide your thinking in the next phase of the project.