To: Bank of England

From: Electronic Money Association

Re: **EMA response to Bank of England CBDC Requests for Information**

Date: 2 September 2023

What are the use cases for offline payments and how would that influence design of the digital pound?

- What constitutes an offline payment and is it feasible to implement offline payments in CBDC?
- What risks would offline payment create and how can those be mitigated?
- How could offline payment functionality improve financial inclusion?
- What are other use cases for CBDC offline payments?
- As part of digital pound design, should offline payments functionality be developed as part of the core offering, developed as an overlay service, or not included?

(***Response limited to 700 words*).**

An offline payment is a transaction that can be conducted between a payer and payee in physical proximity of each other, where the authorisation and settlement of the transaction takes place in the local storage devices of both the payer and payee. Payment can complete without any need to connect with central system over internet or mobile networks.

Offline payments are feasible through the use of NFC technology to connect payer's and payee's storage devices. Use cases would typically be personal transactions with (i) friends and family, (ii) tradesmen, and (iii) other businesses operating 'in the field' where online connectivity may be patchy or non-existent, e.g. ice cream sellers. A technical distinction between individual and business users' digital pound accounts is crucial so that off-line functionality, limits and controls can be tailored to each user segment.

Whereas the risks associated with offline digital pound transactions and holdings are no different to that of physical cash, the digital pound provides increased opportunities for risk mitigation. The primary risks are seen as the (i) use of off-line digital pound transactions in money laundering, and (ii) harm caused to users following the loss or theft of local storage devices.

In mitigating money laundering risks, a business user's digital pound local storage device should be seen principally as a collection device, supplemented with in-built refund limits/controls to prevent misuse. Limits on a business user's off-line storage device would force business users to periodically 'come online' and effectively bank their digital pound takings. In contrast, an individual's digital pound storage device should operate within (or below) BoE set thresholds.

In mitigating harm from the loss of devices, users (individuals and business users) should be provided with options to configure/customise account security settings and/or reduce balance limits. Simultaneously, the ability to potentially tracked down and recover a lost

mobile phone (unlike a traditional wallet and the cash it may hold) may be seen as a benefit over cash.

Issues connected with financial exclusion include individuals having difficulty in (i) proving ID, (ii) proving addresses, and/or (iii) having access to or ability to use mobile phones/modern technology. Exclusion may result from age (particularly the elderly), poverty or homelessness. Consequently, for the digital pound to improve financial inclusion, consideration should be given to it supporting:

- Anonymous digital pound accounts/wallets (albeit with reduced 'individual user' limits);
- Cash based funding, not limited to ATMs / Bank Branches; and
- NFC enabled card-based storage devices.

Offline payment functionality should be developed as part of the core offering as a key feature, differentiating the digital pound from other payment methods.

What would merchants need from a digital pound design?

- What are the range of factors that would influence whether merchants accept digital pound payments alongside other payment methods?
- What are the options for enabling in-store acceptance of digital pounds (eg existing POS devices, QR codes) and what are their relative advantages or disadvantages?
- What are the requirements for enabling e-commerce acceptance of digital pounds?
- What account functionality would help merchants to manage any corporate limits on digital pound holdings?
- What issues might arise from digital pounds for retailers' day-to-day payments and cash treasury management, and how might those be addressed?
- What are the potential scenarios for retailers running their own PIP or ESIP services?

(**Response limited to 700 words).**

A merchant will accept new payment methods generally if they (i) provide access to new customers/markets , and/or (ii) offer customers extra convenience and increase speed at tills or during online checkout.

So far as the digital pound providing merchants with access to new markets, its impact and influence upon adoption would likely be limited to the online merchants and their increased potential reach to financially excluded members of society. Until such time there is data driven evidence to support this potential increased reach, there is not sufficient motivation for merchant adoption of the digital pound on these grounds.

So far as the digital pound's favourable impact upon the end-user experience, this would likely include the substitution of in-store cash transactions, reducing queuing times. Presuming that the digital pound will not totally replace cash, merchants' overheads of handling cash will remain. Again this does not provide motivation for adoption.

As there is not an overwhelming commercial business case for merchants to embrace the digital pound, the major factor influence upon merchants acceptance of the digital pound is intrinsically linked to:

(i) POS terminal/software suppliers and PIPs being able to provide merchants with solutions for the 'seamless' acceptance of the digital pound (i.e. alongside other payment methods); and

(ii) For the acceptance of digital pound transactions on a 'cost neutral Basis' when compared with other forms of payment acceptance.

Importantly, the merchant must not be compelled to find or contract with an alternative or additional payment partners to ultimately meet any obligations they may have regarding the mandated acceptance the digital pound (i.e. as legal tender).

The options for enabling in-store acceptance of digital pounds should be in-line with the types of services that the merchant's receives from their respective PIP/POS providers. In this regard:

- The support of contactless POS terminal payments is considered normal. Thus merchants would expect the acceptance of contactless digital pound payments whether performed via a digital pound app on the consumer's phone, and/or any digital pound enabled card they may have.
- To the extent that a merchant currently takes advantage of QR codes within their sales process is linked to their POS provider/ PIP service offerings. Where this is the case, the respective POS provider/PIP may also wish(at their discretion) to offer the merchant base with QR code based digital pound payments. So far as a POS provider/PIP does not offer QR code based payments to any of their existing customers, they should not be compelled to support or offer QR functionality for the acceptance of digital pound.

Key requirements for the acceptance of digital pound within an e-commerce environment include:

- The avoidance of drop-out during checkout processes as a result of customers not having sufficient digital pounds in their account. Ideally, the digital pound should support automated 'top-up' functionality during shopping.
- The merchant being able to rely upon user authentication (and issuer/PIP authorisation on any digital pound holding top-ups) such that the merchant is guaranteed payment, and only be commercially exposed to customer disputes/claims pertinent to the fulfilment of orders and the quality of merchandise sold.
- The support of returning customers, having the ability to store customers' digital pound account details.

Corporate limits on digital pound holdings should be designed such manner that they do not need management in online / partial online situations. In principle, sales takings should be captured by the merchant's PIP either real-time or periodically throughout the day and automatically redeemed to the merchant's (or their PIP's) designated bank account, without being impeded by holding limits. So far as the corporate may have consider the periodic capture of off-line transactions, this would be managed through operational policies.

Issues around day-to-day payments and treasury management are also likely to be operationally resolvable between the merchant and/or their PIP.

The initial launch of the digital pound should focus upon foreseeable issues between Payers and Payees. In this regard, one day-to-day merchant issue concerns refunding made to consumers that have the potential breaches in individuals' digital holding limits. How would this be accommodated in an off-line setting?

Larger merchants/platform providers may choose a PIP route in order to exercise greater control over the customer interface, product evolution or for business reasons.