Bank of England

Central Bank Digital Currency (CBDC)

An overview of BoE work to date

University of Edinburgh – 13 June 2022

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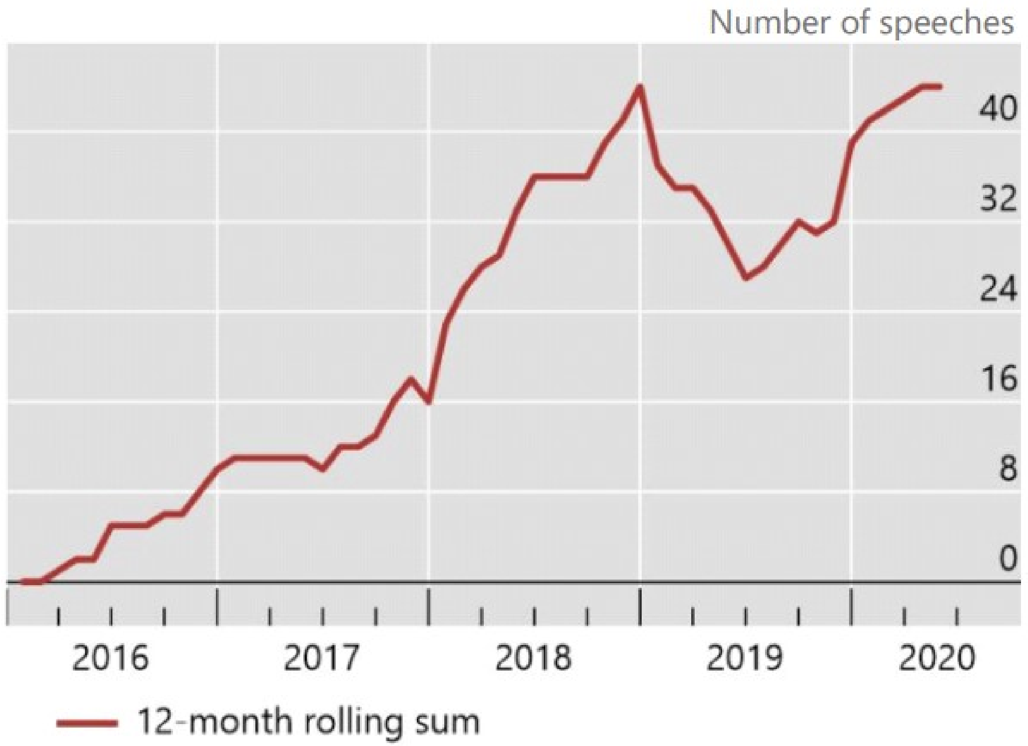
Go to www.menti.com and use the code 3878 1261

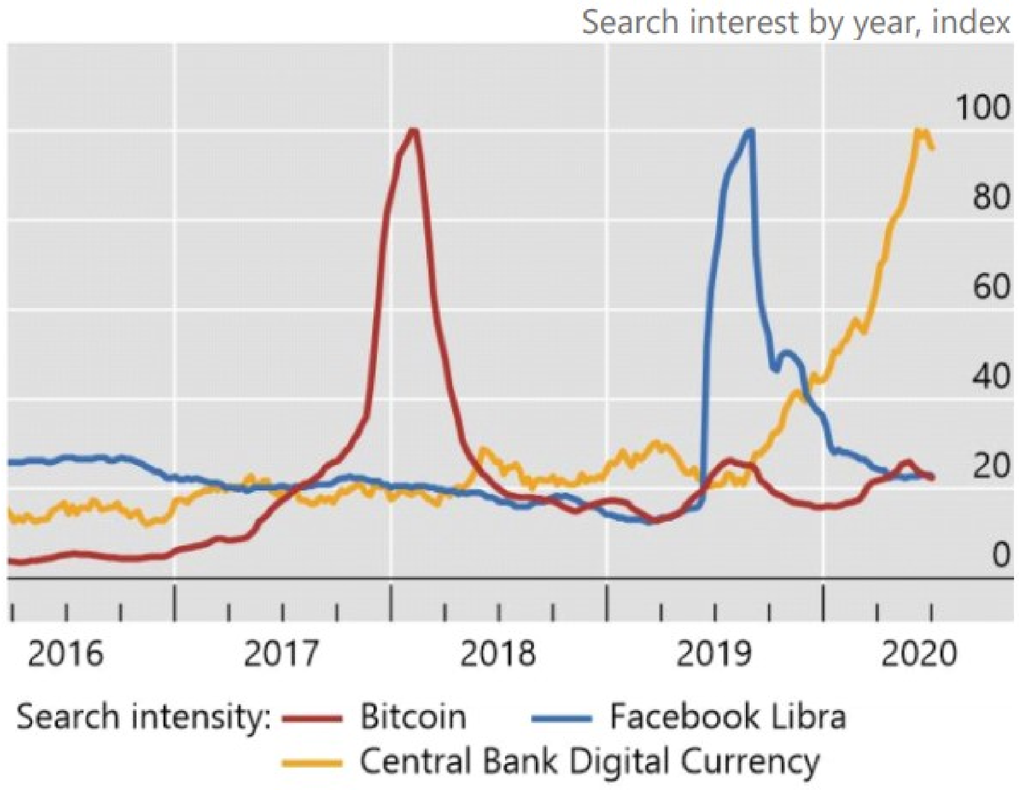
What do you know about Digital Currencies and CBDC?

Increasing exploration of CBDC globally

Speeches and reports on CBDC by central banks



Google searches



Source: BIS (2020).

- 86% of central banks are now engaging in some form of CBDC work (BIS (2021)).

What is CBDC?

If launched, CBDC would be a new form of money

A Central Bank Digital Currency (CBDC) would be a new electronic form of central bank money that could be used by households and businesses.

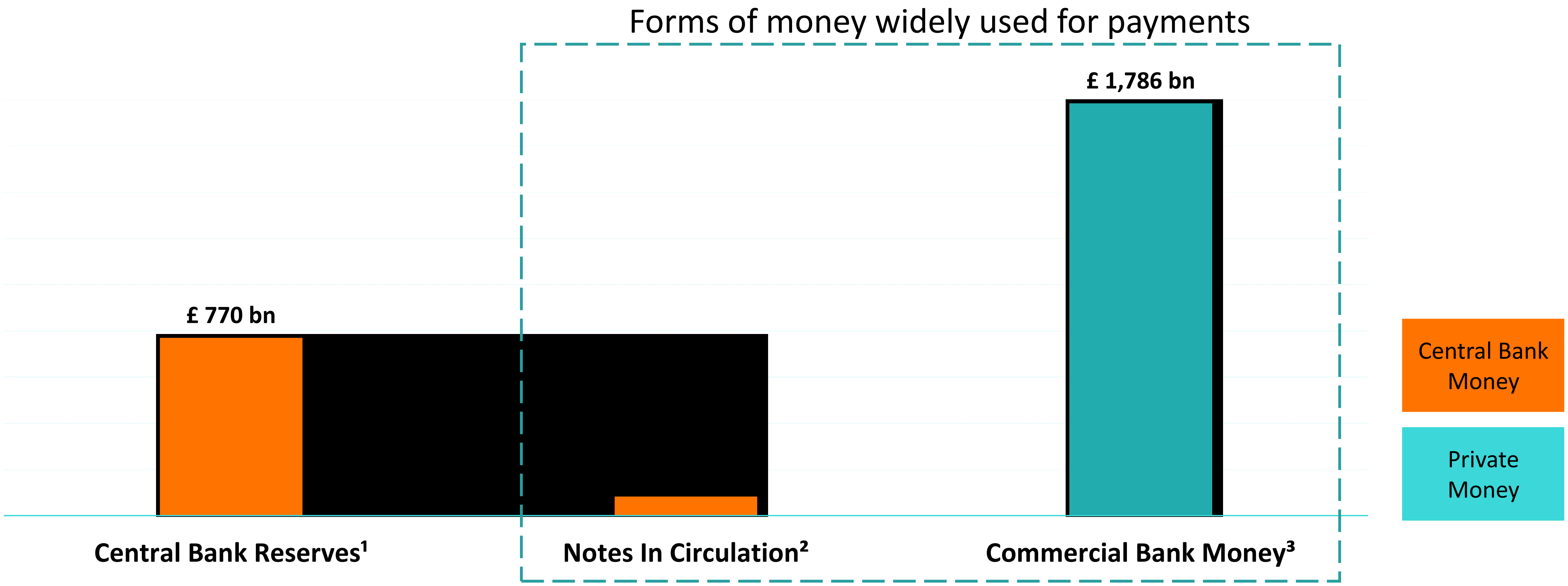
CBDC would be a **direct liability of the central bank.** As such it would be the safest form of money available.

CBDC would **not be a 'cryptoasset'** – although we may adopt innovations presented by the technology.

The Treasury and Bank remain committed to **retaining access to cash** – CBDC would sit alongside cash, rather than replace it. Treasury has consulted on legislative proposals to protect access to cash.

Why Central Bank Digital Currency?

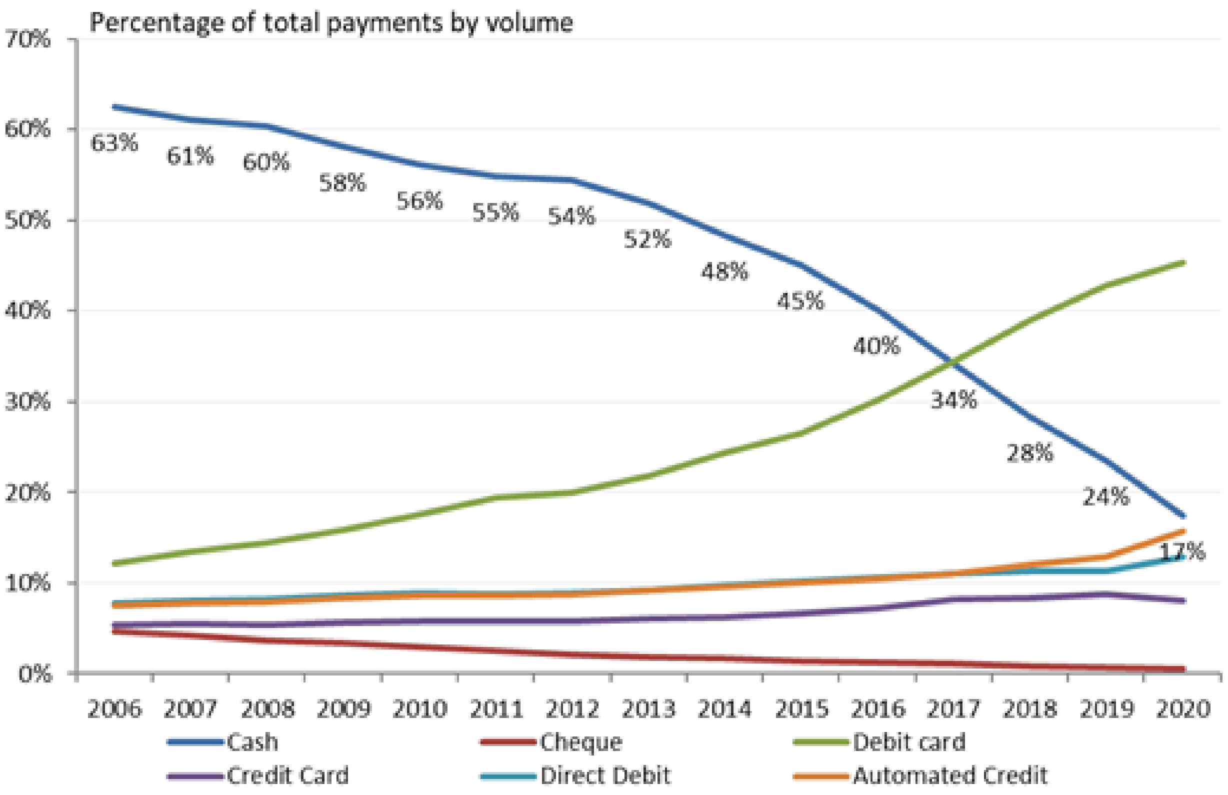
Money used for payments exists in both public and private form



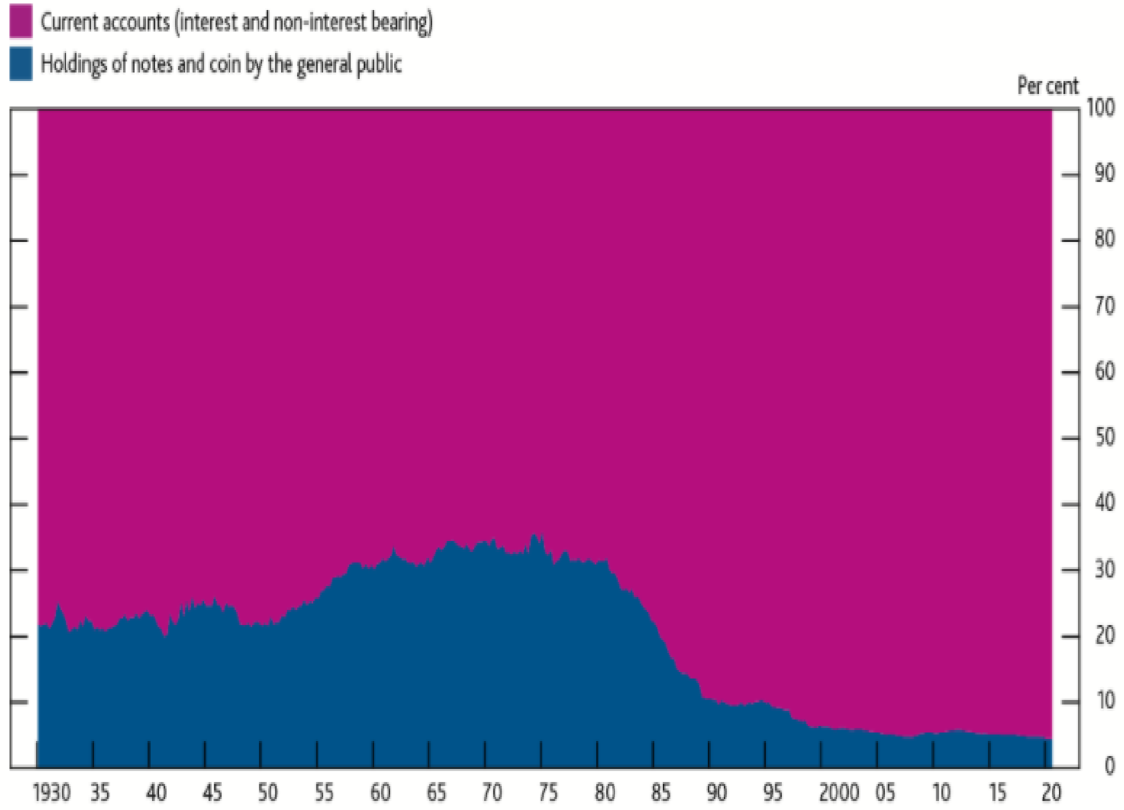
1. November 2020 data. *Weekly amounts outstanding of Central Bank sterling reserve balance liabilities not seasonally adjusted.*
2. November 2020 data. *Weekly amounts outstanding of Central Bank sterling notes in circulation total not seasonally adjusted. Includes Giants and Titans issued in line with the Scottish and Northern Irish banknote regime.*
3. November 2020 data. *Monthly amounts outstanding of UK resident monetary financial institutions' (excl. Central Bank) sterling sight deposits from private sector not seasonally adjusted .*

Electronic payments are growing rapidly, and use of cash declining

Electronic payments are growing fast



And money available to make payments is mainly private

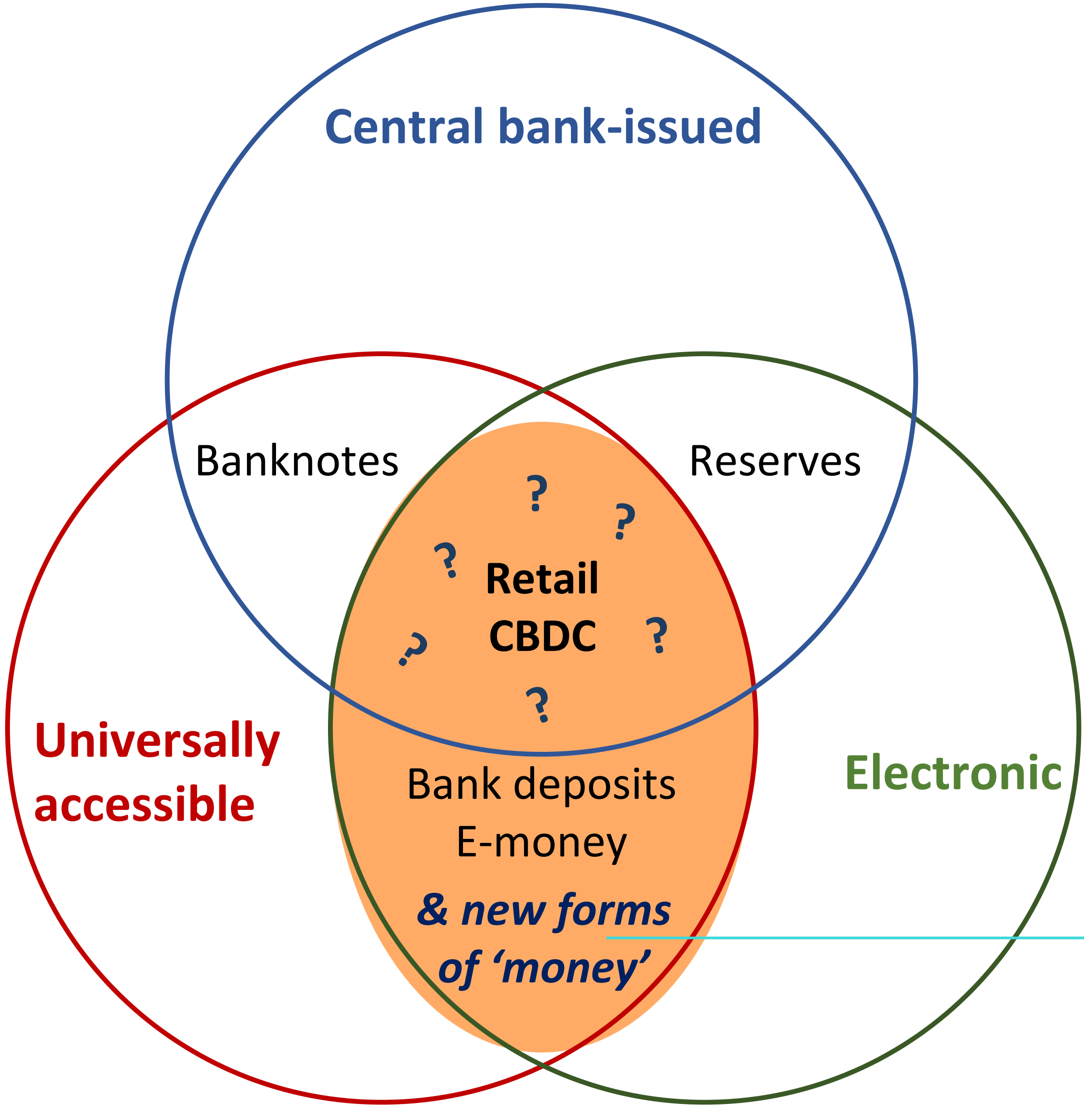


New forms of digital money are emerging

New forms of <u>private</u> digital money could have implications for:

- **Confidence** in, and security of money and payments.
- **Resilience** of critical payments infrastructure on which the real economy relies.
- **Cyber security and operational resilience** given prevalence of hacks and scams.
- **Competition**; given risk of dominant providers quickly emerging.
- **Privacy and data protection**; if private providers 'monetise' data in unfair ways.

The Treasury and Bank are consulting on how to manage the risks posed by new forms of digital money and ensure they can be used safely



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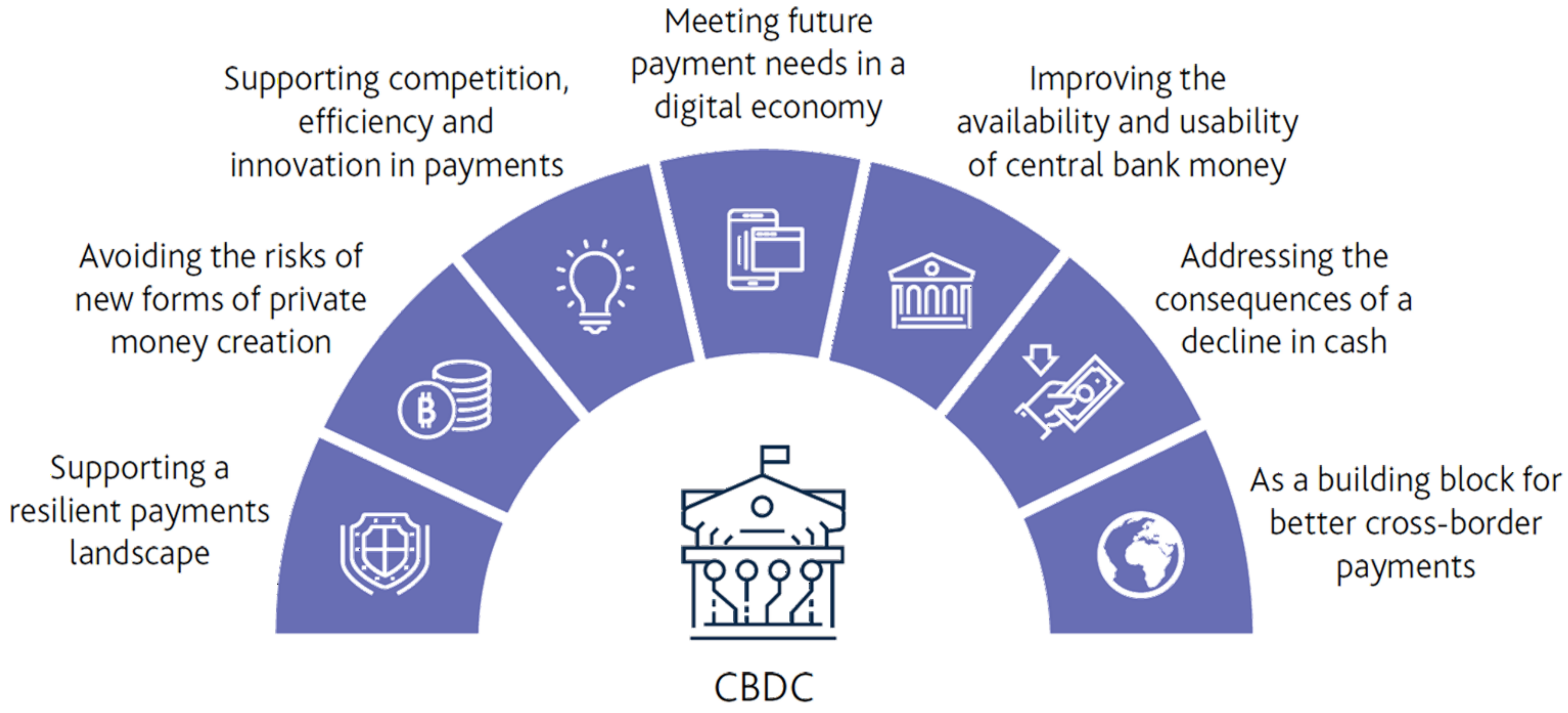
Do you think it will be an issue if cash is no longer accepted as a form of payment?

Potential benefits of CBDC

There are a broad range of potential benefits; although a number of them are not ‘unique’ to CBDC



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What do you think is the most compelling opportunity identified?

In response to these trends, there is a compelling case for exploring a CBDC

Access to central bank money in a digital form

The availability of, and convertibility into, a central bank asset underpins the concept of ‘money’ and ensures confidence in the currency whether in public or private form.

Guard against risks of private forms of money

Avoid risk of less resilient, and potentially non-substitutable money becoming systemic within UK economy.

Promote competition and enable innovation

CBDC could provide the right ‘open’ infrastructure to support private innovation, enable the digital economy and promote competition within payments. Would prevent ‘walled garden’, anticompetitive money with domination by one private issuer.

Establishing clarity on our public policy aims and key design choices is a priority

POLICY & DESIGN QUESTIONS

Financial Inclusion

- Who can access CBDC, and what accessibility support may be needed?
- Will offline payments functionality be necessary to ensure CBDC can be used like cash?
- What role for Digital ID?

Privacy

- Should there be scope for small-value anonymous payments?
- What are fair commercial uses of data (if any)?

Payments functionality

- What integration into existing payment architectures (e.g. NPA)
- Uses cases like micropayments, smart contracts, social security integration.

Competition

- Market structure and policy response to network effects and data advantages.
- Competitive / market structure implications of ancillary business models (e.g. advertising).

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A few design questions…

Potential impact of CBDC

CBDC could have significant economic implications. We need to understand these and be able to manage them.

- We are focused on retail payments ‘use cases’ so, at the very least, CBDC should ‘do no harm’ to the Bank’s ability to meet its statutory objectives around monetary and financial stability.

Key considerations:

- *Financial stability*: a shift of commercial bank deposits to CBDC could impact ‘steady state’ bank funding, profitability and broader credit conditions; in ‘stress’ bank runs may also occur more easily with a CBDC available.

- *Monetary policy*: CBDC should be designed to co-exist with cash, and to ensure that monetary policy choices can be effectively implemented.

While not our current objective, there may also be opportunities in the longer term from CBDC:

- CBDC could enhance the transmission of monetary policy by making it faster/fuller, protect monetary sovereignty (against, for example, stablecoins) or alleviate the ‘zero lower bound’.

An illustrative scenario – steady state

1. 20% of household and corporate deposits transfer to digital money.
2. Banks maintain lending and to restore liquidity positions buy HQLA & issue wholesale debt.
3. Credit conditions tighten (if not offset by monetary policy)
4. Some borrowers switch to non-banks.

Risk mitigation

Case for risk mitigation is strongest for transitional arrangements

- Uncertain CBDC demand and customer behaviour
- Rapid transition would mean rapid changes in market structure
- Firms may take time to fill any gaps left in the market (eg for lending)

Limits during a transition period may be an option

- Could help manage bank deposit and market disintermediation
- Could control the amount or speed of outflows of bank deposits
- Operational design implications and interaction with stablecoins

Potential forms of limits

Holdings

The amount of CBDC an individual could hold.

Limits the amount of deposits that can leave the banking system.

Could limit wholesale use.

Transactions

Limits on transactions into CBDC.

Could slow deposit outflows

Could limit wholesale use.

Access Eligibility

Restrictions of types of users able to hold CBDC.

Could limit wholesale use

Remuneration

Different remuneration rates vs. commercial bank deposits.

Could reduce the overall amount of deposits leaving the banking system

Could be less effective in stress

Are there potentially other measures?

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Do you think we should impose restrictions on a CBDC?

The Work of UK Authorities

Work so far

Discussion Paper in March 2020

- The paper highlighted the Bank’s initial thinking on CBDC, including economic implications, opportunities, design principles, and technology considerations.
- Respondents showed strong agreement that the Bank should, at the very least, be carefully studying CBDC, even if there was a range of views on whether one was ultimately likely needed or desirable

Discussion Paper in July 2021 on new forms of digital money

- The paper presented potential benefits and risks of new forms of digital money, including CBDC

The CBDC Taskforce is coordinating work to determine whether a CBDC is needed and what the optimal design might be

- **No decision** has been taken whether or not to introduce CBDC.
- **Considerable work is needed** to reach that point; based on strong collaboration between HMG, the Bank, and the UK authorities given the breadth and complexity of the issues.
- The joint HMT-Bank led **CBDC Taskforce** will coordinate work to assess the opportunities, risks and implications of CBDC, and recommend whether or not to proceed.
- Assessment of public policy implications of CBDC, and a thorough understanding of the optimal economic and functional design are priority **near term priorities.**

Next steps for a UK CBDC

Joint **Bank – HMT Consultation** in 2022 which will:

- Set out our assessment of the case for a UK CBDC, including the merits of further work to develop an operational and technology model.
- Evaluate the main issues, design features, benefits and implications for users and businesses.
- Inform a decision on whether the authorities are content to move into a multi-year 'development' phase.

Current work	2022	2023 onwards
Research and exploration	**Consultation** Followed by decision by UK authorities on whether to move into Development phase	**Development Phase**: technical specification of the proposed CBDC architecture. Possibly in-depth testing of the optimal design

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Do you think the Bank should issue a retail CBDC?

Thank you