



BANK OF ENGLAND

# Speech

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## Do We Need 'Public Money'?

Speech given by

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I want to talk today about whether we need ‘public money’. I should make clear that I am not talking here about public spending but rather about the form of money itself: by ‘public money’ I mean money issued by the state to its citizens for everyday use.

## **Money in the UK today**

This may seem a rather odd question.

In the UK, the Bank of England – a public institution<sup>1</sup> – has been issuing money to the public for over 300 years. Its banknotes, carrying the famous “I promise to pay the bearer” pledge are carried in millions of wallets and purses and used millions of times every day by the public to make transactions<sup>2</sup>.

These notes and coins are denominated in Pounds Sterling, the currency of the UK. It is the Bank of England, on behalf of the state, that is charged with ensuring the stable value of the currency by keeping inflation at its 2% target.

Public money for general use in the UK is only available in the form of physical cash. It is highly visible, trusted and, indeed, is probably the image that many people in this country have in their mind when they picture money.

However, the majority of the money held and used by people in the UK today is not physical ‘public money’, issued by the state, but digital<sup>3</sup> private money’ issued by commercial banks. Around 95% of the funds people hold that can be used to make payments are now held as bank deposits rather than cash. In everyday use, only 23% of payments pre pandemic were made using public money in the form of cash, down from close to 60% a decade earlier<sup>4</sup>.

This private money is not a claim on the state or backed with the resources of the state. It is not covered by that familiar Bank of England promise to ‘pay the bearer’.

It is not clear to me to what extent the general public understand this distinction between public and private money – or even that for most of the time they are using private money. I am not aware of any surveys or research that address this question.

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<sup>1</sup> For much of the Bank’s history we have been a quasi-public institution, under private ownership but tasked with the discharge of official functions.

<sup>2</sup> The Bank of England is responsible for issuing Banknotes in the UK. Coins are produced by the Royal Mint, by agreement with HM Treasury.

<sup>3</sup> This is sometimes also refer to as electronic money, but I will use the term digital money here – which avoids confusion with the narrow development of ‘e-money’ institutions.

<sup>4</sup> UK Finance – UK Payment Market Summary (2020)

I have, over the years sometimes asked the question of those I have met. Such an approach is statistically reprehensible of course and one certainly shouldn't base policy on it. But for what it is worth, the answers suggest that people are generally unaware of the distinction between private and public money.

And, outside periods of crisis, the type of money they use, what and who stands behind it, is not something that particularly interests them.

The fact that, unlike in some periods of history, we do not at present think much about these things and that people in the UK have a general confidence in the money they use regardless of its form and issuer is, I think, a good thing.

It is not an accident. It is due to the credibility of the institutional framework governing money in the UK that tethers private money to the public money issued by the state.

This framework has a number of important elements. An independent central bank ensures the stability of the value of the currency/unit of account. Commercial banks that issue money are regulated to ensure they are robust. They hold accounts at the Bank of England, settle transactions electronically between themselves in Bank of England public money and are able to borrow from the Bank to meet liquidity shortfalls including in times of stress. And a deposit guarantee scheme gives holders of commercial bank money the protection of a backstop should the bank fail.

And, crucially, this tethering is also due to the fact that people have the right to exchange their private money, claims on banks, into public money, claims on the state, whenever they wish - as they do every time they go the ATM or pay cash in a bank account, without restriction or loss of value.

We do not have to look that far into the past to see episodes when this confidence in the money used in the UK – public or private – has been shaken. The monetary stability framework is less than 25 years old and followed a period in which the value of all monies, public and private, denominated in sterling was unstable<sup>5</sup>.

The current regulatory framework for banks and deposit guarantee scheme originate in an even more recent experience. In the financial crisis only 10 years ago, the government was forced to bailout the banking system at enormous cost to avoid the millions of citizens losing the money they held in the form of claims on commercial banks – and the general loss of confidence in private money that would have ensued.

To be clear, I think the reforms we have made over the last 10 years have led to a much more robust and resilient commercial banking sector. The experience of the last 12 months has demonstrated the resilience of the banking system to an extreme economic shock.

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<sup>5</sup> The UK's experience of high and volatile inflation is well documented. In the ten years before the introduction of the current monetary stability framework, inflation was on average twice as large and twice as volatile as in the following period.

But these not so distant episodes underline that threats to confidence in money or particular forms of money, is not just something in the history books. Money is in the end a social convention that can be very fragile under stress.

## Future Trends

Money is not only a social convention, it is a very dynamic one. The forms it can take and the uses to which it can be put have varied materially through history and between societies. Change has often been driven by the interaction of technological innovation that has improved the functionality of money – for example, by making it more secure or more convenient to use.

We have been living through a period of such change for the last few decades.

On the supply side, commercial bank, digital money has become more available to the general public, cheaper and more widely used, especially for lower value transactions.

On the demand side, convenience, especially with regard to e-commerce, has fuelled the public appetite for digital money. As a result the use of public money in the form of physical cash has been declining.

These changes have been very marked in the UK where they have mainly taken the form of the issuance of credit and debit payment cards to the general public<sup>6</sup>, the development of a Faster Payments System and the emergence of e-money, a derivative of commercial bank money<sup>7</sup>. Digital forms of payment overtook cash in 2015 and now make up three quarters of all payments, with debit cards alone accounting for 42% of payments.

As the only digital money available to the public is private, commercial bank money, the shift from physical cash to digital payment over recent decades has meant a shift from public to private money.

The pandemic and consequent huge forced experiment in remote living, working and transacting has, at least temporarily, accelerated these trends. A recent Bank of England survey, for example, found that 70% of respondents were using less cash than prior to the pandemic. There has for obvious reasons been greater use of contactless payment<sup>8</sup> and internet transactions<sup>9</sup>.

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<sup>6</sup> Nearly all adults in the UK (97%, some 53 million people) now hold at least one debit card. The proportion of adults with at least one credit or charge card has increased slightly over the past few years with 68% of adults having at least one credit or charge card in 2019.

<sup>7</sup> E-money firms are authorised or registered to issue e-money and undertake payment services. They offer electronic money, with client funds held at a commercial bank (and therefore backed at the central bank). However, e-money firms are not subject to many of the same safeguards as retail deposits, most notably deposit insurance.

<sup>8</sup> In 2020 just under ninety percent of UK payments in the UK were contactless (Barclays Insights – [‘Covid and the rise of the contactless consumer’](#)).

<sup>9</sup> Online shopping accounted for 28% of UK retail spending in September 2020, compared with 19% a year earlier (Bank of England

We do not, of course, know how persistent these changes will be when we emerge from the pandemic. I think, however, that it is a relatively safe bet that the experience of the last 12 months will lead to further acceleration of the move from physical to electronic/digital money and with it a shift from public to private money.

Over recent years, the technological innovations that have made digital private money cheaper and more convenient for both e commerce and face to face transactions have been the result of technologies that if not quite 'old hat' are certainly now quite familiar<sup>10</sup>.

There are, however, on the near horizon newer technologies and innovations, such as tokenisation and distributed ledger, which may further transform the money we use.

'Stablecoins', a form of crypto-assets are probably the best known of these. Their proponents claim that these have the potential radically to reduce the costs of digital money and to increase its 'functionality', the 'things it can do', embedding money much more deeply into the digital world in ways we can only now imagine<sup>11</sup>.

The proponents of these newer forms of money are typically not banks but technology companies including the so called 'Big Tech' internet platforms. Their business models are very different to banks: many have no interest in providing credit but rather seek to integrate new forms of money into their other, data driven services.

This has attracted enormous attention, including from public authorities, like the Bank of England, who are now wrestling with the thorny question of what regulatory framework should apply to non-bank issuers of private money. (I do not propose to wrestle with that question today- the Bank of England will shortly be issuing a discussion paper on the public policy implications of non-commercial bank digital money<sup>12</sup>)

Such developments would lead to a further shift away from cash and public money. They may never happen of course. However, having watched the digital transformation of other parts of the economy one would not bet against the next wave of technology leading to further major transformation: we could now, in payments, be in a 'Blackberry' world about to see the introduction of the 'iPhone'.

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<sup>10</sup> For example developments such as the use of 3-D secure protocols, delivered through Access Control Servers (ACS), have enabled the rapid growth of safe online payments and the integration of Near Field Communications (NFC) has enabled contactless card payments and greater adoption of mobile payments.

<sup>11</sup> In the Bank of England's 2020 Discussion Paper on CBDC we highlighted emerging functionalities such as programmable money, smart contracts, device to device payments and micropayments. Amazon's '[Just Walk Out](#)' stores give a sense of what is already possible. Advances in payments technology appear likely to accelerate these developments and provide for greater sophistication in the type and complexity of transactions that can be conducted seamlessly.

<sup>12</sup> In the [December FSR](#) the Bank of England committed to publishing in due course a discussion paper on the potential effects from stablecoins and/or CBDCs on financial stability.

The Bank of England is committed to making physical cash, banknotes, available as long as there is demand for it and is working with other authorities to support continued access to cash. I do not think that demand for cash will entirely disappear any time soon. Many still rely on it for a number of reasons<sup>13</sup>.

But cash, and by extension public money, is becoming an ever smaller fraction of the money we use in the UK and increasingly unusable in a digital world.

We may not be there yet. But it looks probable in the UK that *if* we want to retain public money capable of general use and available to citizens, the state will need to issue public digital money that can meet the needs of modern day life.

### **Does it matter?**

The question – and it is not just a question for central banks -is: does it matter if the public cannot access public money they can use in their everyday lives?

The current mix of public and private money in the UK is the result of history rather than some informed policy decision and some might argue, generally available public money is becoming an anachronism. Given we have the credible public authority framework for private money I described earlier, why should the state need to be involved in the issue of money to the public in competition with the private sector? The state does not directly provide electricity or water to the public in the UK anymore? Why should it provide money?

These are important questions that should not be brushed aside. Any decision that the state should issue a new form of digital money to its citizens cannot rest simply on the fact that the role in society of public money is declining. It must rest on an assessment of the benefits of ensuring available and useable public money and the costs and risks of letting it disappear.

Such an assessment has not yet been done in the UK and no decision has been taken to introduce a public digital money – or to use its technical name, a Central Bank Digital Currency or CBDC.

Introduction of a CBDC would be a very major public project which would have material implications for the financial sector, many parts of the economy and for society more broadly.

The Bank of England, like many other central banks, has been exploring these issues in recent years. We published a discussion paper last year with an illustrative model of a general purpose public digital currency. We will shortly publish another discussion paper on some of the public policy issues generated by new forms of digital money.

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<sup>13</sup> These are set out in detail in the 2019 '[Access to Cash Review](#)', which draws on a survey of 2,000 consumers.

At this year's UK Fintech Week, the Chancellor announced the establishment of a Task Force, led by the Treasury and the Bank of England to ensure a strategic approach is adopted between the UK authorities, as we collectively explore the issues posed by CBDC<sup>14</sup>.

I do not want to, anticipate the outcome of this work. But on the basis of the work the Bank has done so far, I can perhaps set out some preliminary views on where some of the benefits might lie and where, conversely, there might be risks in allowing publicly available state money to disappear.

In doing so, I will look to the future as well as to the present and to the possible entrance of non-bank issuers of private money such as the 'Big Tech' platforms. Given the speed of technological development in payments and of the changes we are seeing in the way we transact, any assessment that is not forward looking is very likely to be overtaken by events.

### **Financial Stability**

First and foremost are the financial stability implications of the absence of public money for use by the general public. Ensuring confidence in money as a means of payment and store of value is fundamental to financial stability. Does the presence of public money in the hands of citizens play any part in this?

The answers here, I think, lie in two related areas. First, the role that generally available public money plays in ensuring both the perception of uniformity of money in the UK and the reality of the substitutability, of all of the monies used in the economy.

The fact that holders of any private money issued by a commercial bank have the right to convert it into public money –i.e. cash - on demand is in my view one key element in the framework that guarantees to users that one form of money in the UK, say claims issued by Bank A can be exchanged for claims on the state or claims on Bank B without any change in value<sup>15</sup>. From the user's point of view, it is all just the same 'money', pounds sterling.

The requirement on banks to be able to exchange, on demand, the money they issue through deposit accounts for Bank of England money also anchors the regulatory framework for banks.

The second area is the role that access to public money may play during times of stress when confidence in the issuers of private money comes under threat.

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<sup>14</sup> <https://www.bankofengland.co.uk/news/2021/april/bank-of-england-statement-on-central-bank-digital-currency>. The announcement also highlighted the formation of an engagement group for ensuring voices from across business and civil society are able to engage policy makers on these policy debates.

<sup>15</sup> Today financial institutions are required, by regulation, to ensure redemption at par in fiat, which has the effect of also anchoring their redemption against other similarly regulated private monies, given the common reference point.

This is a complex issue. On the one hand during such episodes, easy access to safer, public money may stimulate runs out of private money amplifying the stress. On the other hand, the knowledge that under stress depositors have the option to switch into state money may be important in preventing a more general loss of confidence in money.

Absent access to public money the general public is effectively locked into private money. Deposit protection, in such a world, only enables depositors to exchange the claims on one bank for claims on another. In a systemic stress, when the robustness of the banking system as a whole is under threat, the perception that there is no route out of private money, that there is no access to safe liquid assets backed by the state, could undermine confidence.

This perhaps hints at something more elusive and yet more fundamental about the role of public money in citizens' perception of money itself: that whatever its form or issuer, confidence in the concept money in society needs anchored by the perception of a liquid safe asset that will always be accepted.

In previous centuries the gold has played that role and its symbolism remains powerful to this day. In modern times, in the UK, I suspect the state, in the form of the Bank of England and its 'promise to pay' provides that anchor<sup>16</sup>. It is not at all certain whether the Bank of England could continue to provide that anchor, particularly in times of stress, if the public did not have access to the money it issues.

In thinking about these possible roles of generally available public money it is important to think beyond the status quo in which private money is issued only by tightly regulated commercial banks.

As I set out earlier, there is now the very real prospect of non-banks, including the large technology platforms or 'Big Techs', issuing new forms of digital money, such as 'stablecoins'<sup>17</sup> for general payment purposes. These are likely to have greater functionality and lower transaction costs than the current commercial bank digital money offering and could quickly attract a large number of users. The role of generally available public money in anchoring both uniformity and confidence is likely to be more important in a world in which there is greater diversity in the issuers and the forms of the money circulating in the economy.

One cannot of course prove that generally available public money plays the role in financial stability that I have sketched out above. I know of only one, relatively small, example of a modern economy in which the

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<sup>16</sup> The promise to pay is, like all promises, intimately tied to credibility. Users must trust in the ability and integrity of the issuing authority, such that they can have confidence in support for the value of the means of payment. Physical symbolism in establishing this commitment may be significant, that is to say users of money place value on role of possession of a physical object establishing the right to a claim.

<sup>17</sup> The Bank of England's Financial Policy Committee has [set a clear expectation](#) that where stablecoins are used in systemic payment chains in place of money, they must offer the equivalent protections to stable and reliable money currently used in traditional systemic payment chains, whether central bank money or private commercial bank money.

general public does not have access to state money<sup>18</sup> and I am not aware of many in the historical record.

It is certainly arguable that that some combination of regulation and backstopping of private money in its current and future forms will be sufficient to provide the necessary anchors both in normal times and in stress.

But there are clearly risks here to confidence in one of the fundamental underpinnings of the economy and society. And unlike other fundamentals such as electricity and water, money is a social convention that depends on confidence. These risks will need to be very carefully evaluated in any assessment of whether we should be prepared to let generally available, useable public money wither as the digital age progresses or whether the state should issue its own digital currency.

### **Other public policy objectives**

There are other areas in which there may be risks in allowing publicly available state money to disappear and benefits from a CBDC. These concern the wider benefits from a well-functioning money and payments ecosystem for economic activity.

This is an area in which the Bank has a particular interest but where responsibility is shared across a range of public authorities that will be involved in the work of the Task Force. Specifically I am thinking about promoting competition, innovation, inclusion and privacy.

Ensuring competition in the provision of payments services is important for the wider economy. Today, businesses pay substantial fees in order to accept payment from their customers whether directly to private companies<sup>19</sup> or indirectly through the costs of sorting, transporting and securely storing cash. Small business are particularly impacted in both cases. Customers do not see these fees of course, but like other merchant costs, all else equal, they increase the prices that customers pay.

Payments systems are however, by definition, susceptible to network effects. Consumers and retailers prefer to use a payment method when it is already widely used, and so customers gravitate towards large payment platforms. This dynamic makes it very difficult for new payments firms to enter the market, which can in turn insulate incumbents from competitive pressure.

Looking forward, the challenge of delivering competitive outcomes is likely to grow more complex. As the payments business becomes increasingly integrated into the digital economy, the use of data has the

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<sup>18</sup> In Hong Kong, banknotes are issued by three commercial banks (under license from the HKMA). A similar arrangement exists in Scotland and Northern Ireland.

<sup>19</sup> The Payment System Regulator has estimated the weighted average merchant service charge (the largest, but not only, fee item when accepting digital payments) across UK card transactions to be around 0.6%. This varies by size of business and is higher for smaller firms. For SMEs with lower turnover, the average MSC is three times larger, at around 1.9%.

potential to deepen the network effects in payments. For example, if, big tech platforms have a very different, data driven business model to banks. If they are able to better extract value from user data, they may be able to more heavily cross-subsidise their payments business.

Interoperability is key for fostering competition in payments systems. By interoperability I mean the ability of consumers to move funds across systems or providers with little friction and at no substantial cost.

New money and payment innovators, with powerful data advantages could have strong commercial incentives to set themselves up as so called 'walled gardens' – systems that are not interoperable with others and therefore lock in consumers.

Competition acts a spur to innovation. As I observed earlier we may still be in the 'Blackberry' phase of innovation in payments. The new technology and growth of digital payments is increasingly allowing for specialisation<sup>20</sup> and innovations that are giving new options to consumers over how they pay. Ensuring competition will be key to the conditions in which such innovation can flourish.

Competition and cost control can be ensured by regulation, by access to infrastructure and by common standards. Payment card fees, for example, are capped in the UK and the Payment System Regulator acts as the economic regulator of the main UK payment systems. Other regulation prescribes common standards for non-banks to access bank based deposit account information. The Bank of England has widened access to its central payments infrastructure to include non-bank payment firms.

However, public digital money could also have an important role in this respect. The option of paying in cash has in the past served to anchor the cost of face to face transactions. Looking ahead, as payment options proliferate, the option of using digital public money as an alternative to private money could play an important role in anchoring costs.

Equally important, digital public money and the infrastructure necessary to support it would help ensure the necessary interoperability and common standards between all major payment systems in the future economy.

The extent to which digital public money in the form of a central bank digital currency could play these roles would depend on its design - most particularly on its interaction with the private sector.

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<sup>20</sup> We usually refer to making a payment as one, single, uniform activity – but there are a wide range of types of payments which may lead to distinct technological solutions. Payments vary based on who is making them (e.g. business to business, person to person, government to person), their size (buying a house or chocolate bar), complexity (refunds, conditionality, bundling with other services e.g. buy now pay later).

In its discussion Paper last year, the Bank of England set out as an example a platform model of a central bank digital currency. This illustrated the role private firms might play in delivering interoperability, innovation and competitive outcomes as part of a future payments landscape.

In the model, digital public money would operate alongside private money - as cash does now. The central infrastructure in the model would be operated by the Bank of England. All customer facing services, however, would be provided by private sector firms, banks and non-banks alike, who would be able to plug into the Bank of England infrastructure and integrate digital public money into the services they offered.

There are also some wider social questions about the type of money we use that fall broadly into the category of 'values'. I will briefly highlight a few of these.

The first is inclusion. It is important for social as well as economic reasons that all have access to money in the form they need to make transactions. Physical cash provides a backstop. It requires very little of users - neither identification, nor ownership of a smart phone nor any particular understanding of technology. But it is increasingly a backstop rather than a fully functioning alternative.

Today, there are currently 1.2 million unbanked people in the UK, who by and large rely on cash and cannot access digital payments or can access them only at disproportionate cost.

The experience of the last 12 months has highlighted the risks of digital exclusion generally. As the economy become increasingly digitised, the social consequences of exclusion from digital money will become more severe. This is not simply due to the growing importance of internet transactions. We already see a small but growing number of examples in which cash is not accepted for face to face transactions.

As we have seen over many years with the banking system, future private money and payments providers may not have the commercial incentives to provide useable services for the unbanked and other parts of the population. Digital public money, appropriately designed, may therefore have an important role to play in ensuring inclusion.

A second area in this values category is privacy. This is a complex area. There is clearly a trade - off between the need for effective law enforcement to combat illicit activities on the one hand and citizens' right to privacy on the other. The balance will I am sure need to be struck in the same place for digital private and public money alike. It may however, be considerably easier to implement for public digital money.

There is, however, another important privacy concern – the use of data on individuals' transactions for commercial rather than law enforcement purposes. This is, and will I am sure, continue to be covered by regulation. But as most of us have probably experienced when being asked to give permission to use our data, there is often not an alternative option offering greater privacy available for the service we need. Given

the network effects around money and payments, it is not clear that absent public digital money such an alternative would exist.

And finally, and perhaps most simply, should citizens have the right to holding and using the safest form of money, public money, in their usual, everyday lives and in times of uncertainty? It is perhaps no co-incidence that the demand for Bank of England money, cash, has gone up during the current pandemic even as the use of it in daily transactions has gone down<sup>21</sup>.

## Conclusion

When seeking to deliver public goods, such as inclusion and privacy, and similarly for competition, one might look to regulation to achieve desired public policy objectives. And indeed, the same may be true for the public policy objective of financial stability.

But regulation alone is not always the silver bullet for complex, multidimensional public policy objectives. It can be expensive, slow to react and difficult to police. It can also create barriers to competition.

It may be that a consistent regulatory framework across a range of policy areas could mean that it would not matter much if the population at large lost access to useable public money. But it might also be that a well-designed and effective public money alternative in combination with regulation where necessary would provide a more efficient and a more robust answer.

These issues and their implications for the design of any digital public money England will be at the centre of the work of the Treasury -Bank of England task force. We will explore them also in the broader engagement group that has been established.

There are other important questions that I have not covered today about the public policy implications of any shift away from commercial bank money into any new forms of non-bank digital money whether public, like CBDC or private, like stable-coins. These will be explored in a Bank of England discussion paper we hope to release in the next few months.

My message today, however, is that even without the new, technology enabled forms of money that are on the near horizon we are seeing accelerating changes in the way we live and transact that will greatly reduce and perhaps eventually eliminate the role that public money plays in the economy today.

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<sup>21</sup> Despite the decline in the transactional use of cash throughout the pandemic, the value of notes in circulation (NIC) has shown strong growth, as is today nearly 20% higher than immediately before the pandemic. For context, the average growth rate of NIC over the preceding five years was 0.5%. For more detail, see <https://www.bankofengland.co.uk/quarterly-bulletin/2020/2020-q4/cash-in-the-time-of-covid>

New technologies and the entrance of new players are likely to reinforce these trends.

We should not let this happen by accident. Whatever the outcome, it should be based on a careful and thorough assessment of the implications of such a change and of the alternatives that may be available to us.

Thank you.