



BANK OF ENGLAND

# Speech

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## **Responding to leaps in payments: from unbundling to stablecoins**

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Good morning. I would like to thank the Westminster Business Forum for inviting me to speak at today's seminar on 'Payments policy and regulation - infrastructure, innovation and end-user priorities'.

I'd like to start today by telling two short (and seemingly unrelated) stories.

The first is the story of perhaps the first giant leap forward in payments – the introduction of paper money.

Paper money was invented in China as early as the tenth century. Merchants seeking to avoid carrying around heavy iron coins began issuing IOUs written on mulberry bark. The state eventually took over – outlawing private IOUs and banning counterfeit – and the first state-backed currency was born. When Marco Polo arrived in the mid thirteenth century, he was so amazed by this invention that he devoted an entire chapter of *The Marvels of the World* to Kublai Khan's tree bark money.

But, the first big leap forward in payments ultimately ended in a leap backwards. By the mid-fifteenth century, China had eliminated paper money entirely. The state had issued too much money and counterfeit was rife. Ultimately, mismanagement of the new invention resulted in what was perhaps the world's first hyperinflation. China didn't adopt paper money again for several hundred years. Although paper money eventually made a comeback, it took generations.

The second story I would like to tell is a bit more mundane: the story of my breakfast. On the way to this conference, I stopped to get a coffee and paid for it by tapping my phone against an iPad. Of the other people in line in the busy coffee shop, not a single one paid in cash – everyone was tapping cards or phones.

The story of my breakfast won't be a surprise to most of you – indeed card payments have become the norm in many parts of the UK. The proportion of UK payments made with cash has fallen from 60% in 2008 to 28% just ten years later. This of course has implications for financial inclusion, which I won't cover today as I don't have time to do the topic justice.

### **The future of payments regulation**

So, what do these stories have to do with payments regulation?

Well, the story of my breakfast is just one tangible example of the transformation underway in payments. Transformation that could very well end with another leap forward in payments.

But the story of the first paper money is a cautionary tale. Leaps in payments are not always forwards. And if mismanaged or poorly governed they can lead to a reversal or even a leap backwards.

Ensuring that innovation in payments this time around doesn't end in a leap backwards is important for two reasons.

The first is that we want innovation to be sustained. Innovation in payments could bring significant benefits for users. Innovation could meet unfulfilled customer needs, widen access to financial services, lower costs, and facilitate better integration of payments with other platforms. Innovation could also support financial stability by increasing diversity in payment methods. Diversity means that if there is a problem with one way to pay, there are ready alternatives, reducing the risks of disruption from any one payment method.

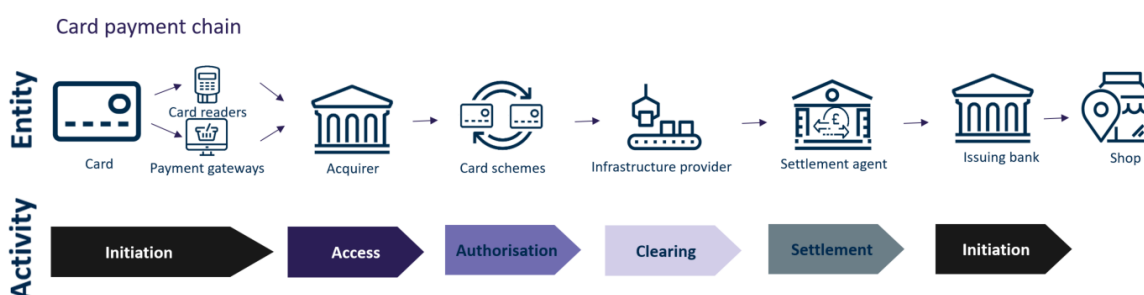
The second is that the ability of individuals and businesses to transact safely and smoothly is critical to financial stability. People and businesses need to be able to make and receive payments on time, with confidence, even in periods of economic uncertainty.

The Bank of England's Financial Policy Committee, the body charged with safeguarding financial stability in the United Kingdom, lists the provision of payment and settlement services as the first of the vital functions which the financial system as a whole performs in our economy. They define the very purpose of preserving financial stability as "avoiding serious interruptions in [these] vital functions".

### Responding to innovation already under way

While some of the current innovation in payments is very visible, there is also significant innovation happening beneath the surface. Increasingly, the process of electronic payments has been disintermediated or 'unbundled'.

#### Example of a card payment chain

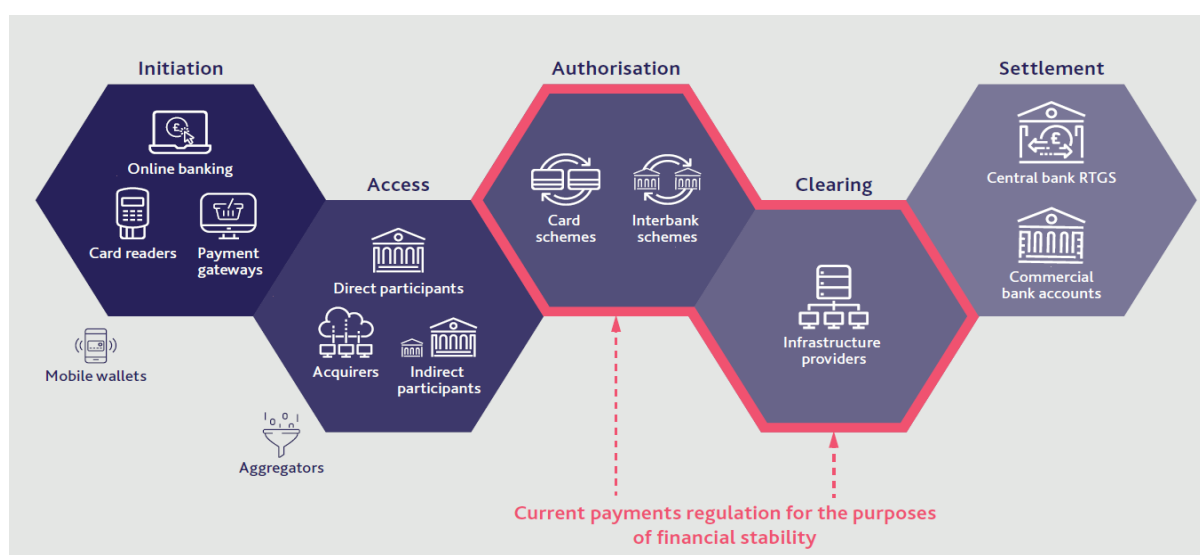


A typical 'payment chain' (the set of activities necessary for a payment to be made) may now start with new non-bank entities using new technologies at the point of initiation – for example, the digital wallet provider that let me use my phone to pay with my debit card this morning. New entrants may also be adding an entirely new service – increasing the number of activities and players and thus lengthening the chain. One

example is technology aggregators, who provide smaller banks with IT access to payment systems and clearing infrastructure.

The current regulatory framework was designed in a world in which banks and a small number of systemic payment systems made up the entire payments chain. Under the current framework, systemically important payment systems (the core infrastructures that undertake the activities of authorisation, clearing and settlement), and some of their critical providers, are regulated by the Bank of England for financial stability purposes. For example, the Bank of England is supervising the development of the New Payments Architecture to ensure the opportunity is taken to enhance resilience. Combined with the separate financial stability focused regulation of banks, who provided initiation and access, this used to capture the entire payment chain.

### Example of 'unbundling'



But today, the banks and payments systems covered by this regulation are only a subset of the entities involved in many payments chains. When I tapped my phone against an iPad to buy my coffee earlier, my payment may have involved as many as four different non-bank entities – in addition to my own bank, the retailer's bank, and the payment system (in this case, Visa).

It is possible that over time, one of these new entities will become so critical that disruption to it could take down the entire chain. And, if they could disrupt the entire chain, the risks these entities could pose would be comparable to the risks posed by the payments systems we currently regulate for financial stability.

To safeguard and future-proof our regulatory framework, we need to move away from a system in which how you are regulated depends on the *type* of entity you are, towards one in which what matters is what *risks* you

pose. In other words: regulation of payments should reflect the financial stability risk, rather than the legal form, of payments activities. This should cover the entire chain, end-to-end.

This may seem obvious: same risk, same regulation. It is hard to argue that regulation should not reflect risks. And a framework that focused on risks rather than legal form would help level the playing field – ensuring that regulation isn't unfairly applied to one type of firm but not another as a result of their legal structure or status. The principle of same risk, same regulation is technology neutral – and could provide clearer expectations to innovators for how they will be treated by regulators when entering the market.

But while same risk, same regulation may seem obvious, as payments chains increasingly continue to involve new entities, our regulatory framework may require some adjustment to meet this principle.

### **Responding to innovation around the corner**

Some of the most high profile potential changes in the way we pay haven't happened yet.

The new “global currency” proposed by Facebook and partners, Libra, generated headlines across the globe when it was announced last summer. Other proposed private ‘stablecoins’ continue to emerge. The language some of these proposals use to describe themselves is grand. Libra promises to “Reinvent money. Transform the global economy. So people everywhere can live better lives.”

In practice, stablecoin arrangements would use cryptoassets (known as coins or tokens) for transactions currently processed by retail or wholesale payments systems. Existing crypto assets – for example Bitcoin – have so far proven too volatile to become widely accepted as payment. Stablecoins propose to address this by using asset backing to establish and maintain a stable value.

It is conceivable that some stablecoins – particularly if integrated into existing online platforms or social media – could achieve widespread adoption very quickly. In India, Google Tez reported having 50m users 10 months after its launch in September 2017. In China, Alipay and WeChat Pay by some measures handled more than \$37trn in mobile payments in 2018. As such it will be important to adopt an appropriate regulatory framework for stablecoins in advance of their launch.

#### *If it quacks like a payment system...*

Stablecoins pose two unique challenges for regulators:

The first is that we need to decide how to regulate them. Proposed use cases for stablecoins vary. And some stablecoins may appear to do more than one currently regulated economic function.

But many stablecoin arrangements will facilitate the transfer of ‘money’ for buying goods and services – effectively substituting all or part of existing payments chains. While my ability to pay for coffee with my phone may feel innovative, it still ultimately relies on card payment - a payment method that has existed for well over half a century. Stablecoins could mean that in future, when I tap my phone at a coffee shop, I may be able to pay with a token that provides a new payment method entirely – and which would not rely on either my bank or my credit and debit cards.

If stablecoins are substitutes for existing payments chains, it follows that they could pose the same financial stability risks as existing payments chains. Failure to regulate them accordingly could leave a stablecoin-shaped hole in our payments regulation.

This is why the Financial Policy Committee of the Bank of England has judged that:

Payment chains that use stablecoins should be regulated to standards equivalent to those applied to traditional payment chains.

In other words: if you’re used for payments you should be regulated to the same standard as other entities conducting payments activities. It doesn’t matter what technology you are using. Same risk, same regulation.

### *Nothing new under the sun*

The second challenge for regulators is that stablecoins differ from existing payments systems in one fundamental way:

Regulation of existing payment chains largely focuses on the resilience of arrangements to transfer money – how money gets from point A to point B. However, the reliability of those chains also crucially depends on the stability of the money they transfer.

Existing payment systems transfer money that has been created by other entities — central banks or commercial banks. Stablecoins propose to *create* the digital tokens or ‘coins’ they transfer.

Existing payment systems effectively outsource this issue - they only transfer money that is subject to separate protections and regulations to help maintain stability and confidence. The value of central bank money, which gives holders a claim on the state, is protected by the Bank of England’s monetary stability mandate and inflation targeting regime, while the value of commercial bank money is protected by legal rights that ensure holders can redeem this money one-for-one in the currency they deposited. Robust prudential regulation and deposit insurance in turn ensure that commercial banks can make good on this in all but rare circumstances.

These protections are important as they underpin confidence in the system.

These protections mean that the coffee shop where I tapped my phone this morning does not need to worry that the value of my payment will change materially vis-à-vis the sterling-denominated price of the coffee by the time it reaches the shop's bank account. And, when the payment arrives in the coffee shop's account, the shop has a clear right to withdraw these funds, in sterling, and receive the same amount that was deposited.

They also mean that, as a payments regulator, I don't currently need to worry about large fluctuations in the money flowing through UK payments systems. I can instead rely on my colleagues in the Bank's monetary policy and prudential regulation areas to do their jobs.

Absent additional regulation, stablecoins may not offer these protections. Regulation of stablecoins will therefore need to be broader than the regulation of current payment chains.

At minimum, where stablecoins are used in systemic payment chains as money-like instruments they should meet standards of stability and protections of holders' rights equivalent to those expected of commercial bank money.

It is tempting to view questions about the stability of value of the 'money' flowing through payment systems as a new issue – but in fact it is one of the oldest issues in economics. Indeed fifteenth century China's leap backwards in payments was motivated by precisely this issue. Failure to properly ensure the stability of value led to the collapse and elimination of the innovation in payments.

## **Next Steps**

I started this talk by noting that we may be in the midst of a leap forwards in payments. This is good news. Innovation – including the innovation some of you in this room are pushing forward as part of the New Payments Architecture project, and the work that the Bank of England is pursuing on RTGS renewal - promises to deliver easier, faster, cheaper, and more stable payments.

But to ensure that this period of innovation does not end in a leap backwards we need to be sure that regulation keeps pace. Regulation needs to facilitate innovation by avoiding picking winners or losers. Instead we should focus on delivering same risk, same regulation. The protections regulation delivers for your payments should not depend on whether you are paying by cash, card, interbank, or stablecoin.

Fortunately, here in the UK we have an opportunity to ensure that regulation remains fit for purpose through this period of change. HM Treasury is currently leading a welcome review of the payments landscape. And there is related work underway in the cross-authority Cryptoassets Task Force that was launched by

HM Treasury in 2018, bringing together Bank, FCA and Treasury thinking. The Bank of England's Financial Policy Committee is supporting this work by providing insight into the financial stability implications of innovation in payments – in December, for the first time ever, its semi-annual Financial Stability Report included a chapter on payments.

As industry, you will have opportunities to engage in this work and I hope you will. I look forward to working with you – and to your questions.