Electronic payments are becoming the norm. A growing number of shop windows display ‘card only’ signs. And we can now pay for low-value goods with a simple tap of our card or even our phone, thanks to a range of mobile apps.

In the UK, cash still accounts for just over a third of all payments. But this is predicted to fall to a mere 16% by 2027, according to banking and finance association UK Finance.

The pace of change is faster still in some other countries. In Sweden, for example, cash has been virtually eliminated. Only 2% of economic transactions are now made in cash, according to the Swedish central bank, Riksbank.

“Money itself is changing,” International Monetary Fund chief Christine Lagarde told a recent fintech event in Singapore. “In 10, 20, 30 years, who will still be exchanging pieces of paper?” she asked.

IMF research, exploring the idea of digitalised money, has suggested that demand for cash is decreasing, alongside growing awareness of virtual currencies, such as bitcoin. Its report, Casting Light on Central Bank Digital Currencies, says: “Digitalisation is reshaping economic activity, shrinking the role of cash, and spurring new digital forms of money. Central banks have been pondering whether and how to adapt.”

Although electronic payments are on the rise, the financial system is still based on physical money, printed by central banks. Meanwhile, commercial banks and private payment systems like Visa and Mastercard enable us to make electronic payments.

Cryptocurrencies grew in popularity after the 2008 financial crash as the public lost trust in the banking system, says Mike Seiferling, director of research on cryptocurrency and government at IE Business School in Madrid and public finance lecturer at UCL. However, cryptocurrencies work more like an asset (see panel, overleaf) and cannot generally be used to purchase goods. Lack of regulation and market volatility have also proved concerns.

While governments try to figure out how to regulate virtual coins, central banks are looking into whether they should launch their own digital currencies.

Unlike cryptocurrencies, digital currencies issued by a central bank would have the same value as a cash currency – and could be spent on goods and services. Both would probably use some sort of digital ledger technology, such as blockchain.

Digital currency might soon become a reality. In her Singapore speech, Lagarde said that “we should consider the possibility” of central banks issuing digital currencies and supplying money.
A digital ledger, where you can see money flows in real time, would be a very fascinating thing for a government

Gary Nuttall, blockchain consultant

A digital ledger, where you can see money flows in real time, would be a very fascinating thing for a government. Claire Ingram Bogusz notes that Sweden is already “master of least cashible” and in many ways relies heavily on card transactions and private providers. Swed, a mobile payment system launched by six Swedish banks in cooperation with the central bank, is currently a popular digital payment system used in Sweden. A digital currency would remove this dependency on the private sector and allow for something cheaper, “homegrown” and state-controlled, she says. There are, however, questions about the technology required to support a digital currency. A Riksbank spokesperson told PF that “blockchain technology or some other form of distributed ledger technology was considered immature in the current situation” to use for the e-krona. A Riksbank report [bit.ly/2Pn3CxD] has concluded that distributed ledger technology is inefficient and unlikely to cope with the volume of transactions required or complete them at speed. The question of scalability “makes it very difficult to use the technology in the event of large payment volumes”, the report says. While the use of cash in Sweden has declined markedly, the central bank says there has still been “no decision made, either from the Riksbank or any other governmental body, to go cashless”, and investigations into the viability of the e-krona are ongoing.

Economically troubled Venezuela took the plunge and launched a digital currency last year – the petro. The government, which controls the currency, has dubbed it a cryptocurrency and it is not accepted as legal tender. Danièle Bianchi, a professor of financial economics, says the petro is “made out of thin air” and controls the currency, has dubbed it a cryptocurrency and it is not accepted as legal tender. Danièle Bianchi, a professor of financial economics, says the petro is “made out of thin air” and “is not work for other countries, she adds.

In the UK, the Bank of England is reportedly playing with the idea of using blockchain to underpin the British digital currency. The bank says on its website that it has no current plans to create a central bank-issued digital currency but wants to “better understand the implications”. Digital currencies have a number of downsides that should be considered. Anish Moghul, a mathematician focusing on blockchain and crypto-execonomics, says it might be difficult to convince a sceptical public that an open digital ledger recording all transactions is a good idea. Widespread lack of trust in government means such an innovation would be a “scary thing” for the general public. Another key issue is the reluctance or inability of some citizens – particularly older people – to adapt to digital society. Jasper Verwaal, audit innovator at Deloitte, explains that “no one” would understand a digital system. “In Sweden, where everything is already digitalised, that is easier to do,” he explains. But in other countries, there are issues around inclusiveness of those who are not digitally savvy, such as the elderly, he adds.

At the Stockholm School of Economics, Claire Ingram Bogusz agrees: “Sweden is in this quite nice position of being a very small society in terms of the number of people, is already very digitalised and, by international standards, quite rich.” This means that what works for Sweden for cash might not work for other countries, she adds.

Another issue is the potential disruptive effects that moving to a digital currency could have on the economy. Seiferling explains: “That’s a major concern, because you can’t just introduce something new that is fundamental to the economy and expect that everything will just keep going smoothly unless it’s incredibly well designed.” The main concern is disruption to commercial banking, which would have “implications for the entire economy”, depending on how integrated and involved the banks will be in the process. Once you push the button [and issue a digital currency] you have to make sure that everything is going to work, because you can’t take it back,” says Seiferling.

There will also be important implications for finance professionals, with the world of audit and accounting likely to change as cash is increasingly abandoned, Nuttall predicts. While an automatic ledger record of every transaction is “going to make auditing massively simpler”, accountants are going to have to understand what ledgers are and how they work, he says.

But digital currencies and ledgers will not make the role of the auditor redundant altogether, emphasises Nuttall. The auditor will always have to “check what’s recorded on the ledger with what’s happening in the real world”. Although no government has officially launched a digital currency as yet or announced plans to replace cash completely, there is agreement that this is the direction the world is headed in. Change is not going to happen overnight say the experts, but – as with all technological innovation – an awful lot is going on behind the scenes. A digital currency would remove this dependency on the private sector and allow for something cheaper, “homegrown” and state-controlled, she says. There are, however, questions about the technology required to support a digital currency. A Riksbank spokesperson told PF that “blockchain technology or some other form of distributed ledger technology was considered immature in the current situation” to use for the e-krona. A Riksbank report [bit.ly/2Pn3CxD] has concluded that distributed ledger technology is inefficient and unlikely to cope with the volume of transactions required or complete them at speed. The question of scalability “makes it very difficult to use the technology in the event of large payment volumes”, the report says. While the use of cash in Sweden has declined markedly, the central bank says there has still been “no decision made, either from the Riksbank or any other governmental body, to go cashless”, and investigations into the viability of the e-krona are ongoing.

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