

Digital currencies behind the veil

It is too early to know whether private digital currencies will develop on a large scale. One thing is sure, though: the world of currencies and payment transfers is about to change in a big way.

A column by Charles Wyplosz.

CHARLES WYPLOSZ

«The dream of a competition between private and public currencies is very old, going back to the 18th century when paper monies appeared.»



We owe it to Libra to have helped sharpen the debate around digital currencies. This particular project will probably not happen, or not as currently defined, but some other forms of digital currencies will emerge, possibly quite soon. Until recently, the discussion has been driven by technical aspects that most of us do not understand. A few simple notions of what is a currency can greatly help looking behind the veil.

We usually associate currency with paper money but, increasingly, we use other forms of money like credit cards, transfers via the internet or smartphones. These forms share three characteristics. First, the transactions all involve money in the bank. Second, this money is usually in domestic currency. Third, this is already digital; few people get paid in cash, so starting with how we

receive money to how we spend it, paper money rarely appears.

What is new about digital currencies, then? It is not that they are digital, but that they are not (maybe) in the bank and (maybe) not in domestic currency.

Libra, for example, would not be in dollars or francs, but its value would be tied to a basket of various leading currencies, and they would not be held in the bank. This may look very new, but it is not. In order to guarantee the value of the basket, the Libra organization will have to hold the corresponding amounts in national currencies and they may well end up holding them in banks. Utterly 20th century!

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Digital currencies issued by central banks

What if they don't? Suppose that the Libra organization holds lower amounts of traditional currencies, in the hope that their customers do not all ask for repayment of all that they put in Libras. Of course, in most likely situations, this will not happen. But just imagine that a mischievous rumor spreads: the Libra is in trouble. Then customers will scramble to get out the Libras and the slower ones will discover that they cannot be repaid. In the 19th century, this was called a bank run as customers wanted to redeem their deposits into paper money, and banks irremediably collapsed. Since then, banks are highly regulated to reduce the probability that runs happen, and yet they happened again and again in the 21st century, for example in Argentina and Greece. In order to protect customers, regulators will apply these rules to the Libra association, which is backed by its shareholders like Facebook, so Facebook would also to be regulated like a bank, which it will not want. This is why Libra is unlikely to happen.

An alternative to privately-issued digital currencies are digital currencies issued by central banks. This could be the case soon in China. The project is as follows. The central bank electronically issues money acquired by large internet players like Alibaba or Tencent, which offer accounts to their customers. Customers acquire such accounts by paying in old-fashioned money (cash or bank deposit). In turn, the internet players use this cash to obtain the digital currency issued by the central bank. To protect customers, the central bank imposes that any unit of digital currency held by customers be backed by an equivalent amount of money held by the internet players. In the end, therefore, the digital currency

will not be that different from your credit card or smartphone payment system and customers will still need to go to banks if they want loans.

The main difference is the plumbing, how payments are transferred, which is where technicalities show up. In the case of your credit card or smartphone, they all go through banks, which settle among themselves through a system run by the central bank. The key difference with digital currencies is that the payments occur along a distributed ledger. To simplify, it looks like a huge spreadsheet where all transactions are recorded. Then someone has to check that the payer has enough currency and order to transfer the desired amount to the payee. Who is that someone? Bitcoin innovated by using volunteers to do that job, paying them with... newly-created bitcoins, so that the service is free. Creating new bitcoins is possible – up to a limit, but that is another story – because their value is not guaranteed. In China, where the digital currency will be guaranteed, it is the central bank that will run the ledger. It is not clear how different this arrangement will be from what already exists in a country where most payments are made with smartphones.

Cutting transaction costs

Why so much hype, then? Part of the story has to do with the allure of the distributed ledger technology, perhaps because it is so complicated to understand. Another part of the story is that the proponents promise to do away with old myths. They announce that digital currencies, built across frontiers, will dislodge the US dollar from its dominance in international payments.

Furthermore, the idea that private currencies could soon replace national currencies seduces those who resent the monopoly power of central banks. In addition, distributed ledgers would permit anonymous transfers of funds, responding to the fear that «Big Brother» is on the rise, even though anonymity will serve illegal transactions.

The dream of a competition between private and public currencies is very old, going back to the 18th century when paper monies appeared. The lessons from that long history is that private currencies eventually collapse, because only the State has deep enough pockets – its taxing power – to be able provide a credible guarantee. Even so, many states fail when they allow for runaway inflation. Money is a very fragile think.

The real innovation is that the new technology promises to drastically cut the transaction costs of international transfers. Outside of Europe, these costs are very large indeed while transfers are slow, incredibly so in the age of internet.

The companies that carry out these transfers explain that they are subject to complex and sometimes incompatible rules. Yet, the threat of competition is already shaking established operators. SWIFT, which is said to effect half of all international transactions, has recently indicated that it has cut its cost by 60% and that 40% of its transactions take less than 5 minutes to be completed. Unless they reinvent their business models and drastically reduce their fees, expensive credit card companies may be on the way out.

It is too early to know whether private digital currencies will develop on a large scale and even whether other central banks will follow China and issue their own digital currencies. The new technology of distributed ledgers is still at the test stage. One thing is sure, though: the world of currencies and payment transfers is about to change in a big way, probably far different from what is currently being envisioned.