WORLD

Crypto mania: how central banks are responding to a new threat

Stefanie Linhardt | 3/04/2018 9:00 am

Cryptocurrencies have been making the headlines in recent months as their values soar and crash. But what threat to they pose to national and global financial systems? Stefanie Linhardt talks to central bankers about their response.

Bitcoin and other cryptocurrencies have turned the financial market on its head. Once a phenomenon only for the very tech savvy, cryptocurrencies or 'crypto assets', as many central bankers prefer to call them, are now pulling in an ever larger following across the globe.

But in the wake of the astronomical rise in Bitcoin prices and the subsequent fall in recent months, cryptocurrencies are being viewed with increasing scepticism and concern by authorities and financial institutions. So far, the main concern is the consumer, followed by reservations over potential anti-money laundering and counter-terrorist financing violations. But do crypto assets pose a risk to financial stability? And how should this relatively new technology be dealt with? Embrace it? Tolerate it? Regulate it? Ban it?

As governments and central banks across the globe take different approaches, the international community stepped up to discuss a regulatory response at the G20 summit of finance ministers and central bank governors in Argentina at the end of March.

But this is only half the story. In light of the rise of crypto tokens, central banks are increasingly having to consider the future of money and the possibility of themselves issuing some kind of digital currency – and some say the implications those might bring could be just as huge.

A currency battle

So far, few authorities have gone as far as to ban cryptocurrencies, though central banks have gone to the greatest lengths to educate and warn consumers of the risks these assets pose. Polish authorities, for example, have invested in an education campaign and have engaged a national YouTube celebrity to film a video showing the market risks of cryptocurrency usage.

Elsewhere, while warnings might be more conservative, the message remains similar. “Currency is a public good that has been entrusted to central banks and we are intending to defend it,” says Yves Mersch, executive board member at the European Central Bank (ECB), who adds that 'cryptocurrency' is a misnomer, as these assets are neither a working unit of account nor a store of value and only in limited cases a means of payment.

“The whole trick from the supplier side has been to call them currencies, but we don’t conceive them as currencies,” says Lars Rohde, governor of Danmarks Nationalbank, the Danish central bank. “We have more or less stated that investors and consumers should be on their guard because [if they engage with crypto assets] they are on their own [should things go wrong].”

The high volatility and low liquidity of crypto tokens is a thorn in the side of many regulators. A case in point: the price of Bitcoin rose by a staggering $1741.10 in one day to reach the highest close in its history (of $19,343.04) on December 16, according to data from Coindesk. The exchange rate has since fluctuated, with a low of $6914.26 on February 5 and a rise again to $8196.90 by March 14 – highlighting the significant losses investors could suffer if the market turns against them.

This is a risk Bitcoin shares with other crypto tokens such as Ethereum and Ripple’s XRP, with the risk perhaps heightening when it comes to some even lesser known and less-frequently traded ones. For those reasons, the general manager of the Bank for International Settlements (BIS), Agustín Carstens, called Bitcoin a “combination of a bubble, a Ponzi scheme and an environmental disaster” in a speech at Goethe University in February and noted that “the current fascination with cryptocurrencies seems to have more to do with a speculative mania than any use as a form of electronic payment, except for illegal activities”.

A risk to financial stability?

At first glance, most of the grievances with cryptocurrencies lie with authorities’ determination to protect consumers and with the complexities in ensuring the assets are not used to finance illegal activities and circumvent sanctions.

Sopnendu Mohanty, chief fintech officer at the Monetary Authority of Singapore (MAS) says: “First you look at whether it is affecting the money-laundering space; second, if it is a customer protection issue; and third, whether it is a financial stability issue. At this stage, we and our colleagues globally don’t see it becoming a financial stability question.” He adds that a potential increase in volumes of transactions could change this view in future.

At present, daily volumes traded at cryptocurrency exchanges are small – about $13bn in mid-March, according to coinmarketcap.com – compared with foreign exchange market volumes of about $5000bn, according to BIS data.

To date, most of the entanglement of crypto assets and the formal banking sector is not significant, according to central bankers. Some lenders, including major UK and US banking groups, have even gone as far as to ban customers from purchasing them through their credit cards.

Of the crypto-related services and innovations currently available, most rely not on traditional banks but on other financial providers. Yet a growth of such companies – including crypto-lending platforms such as Salt and Coinloan, which offer fiat currency loans secured by cryptocurrency deposits, a growing number of Bitcoin ATMs and financial instruments such as Bitcoin futures contracts – could be seen as disruptive.

The BIS's Mr Carstens is outspoken about this issue. "Authorities need to ensure commercial banks do not facilitate unscrupulous behaviours... If authorities do not act pre-emptively, cryptocurrencies could become more interconnected with the main financial system and become a threat to financial stability," he says.

Under suspicion

The worry is, what if crypto assets start to seriously encroach on the real economy? If more crypto-exchanges are created – something that the crypto industry would say is a given – if more outlets accept crypto tokens as a means of payment, and if more banks get involved with crypto assets or more derivatives are created and traded, authorities would regard this with more suspicion.

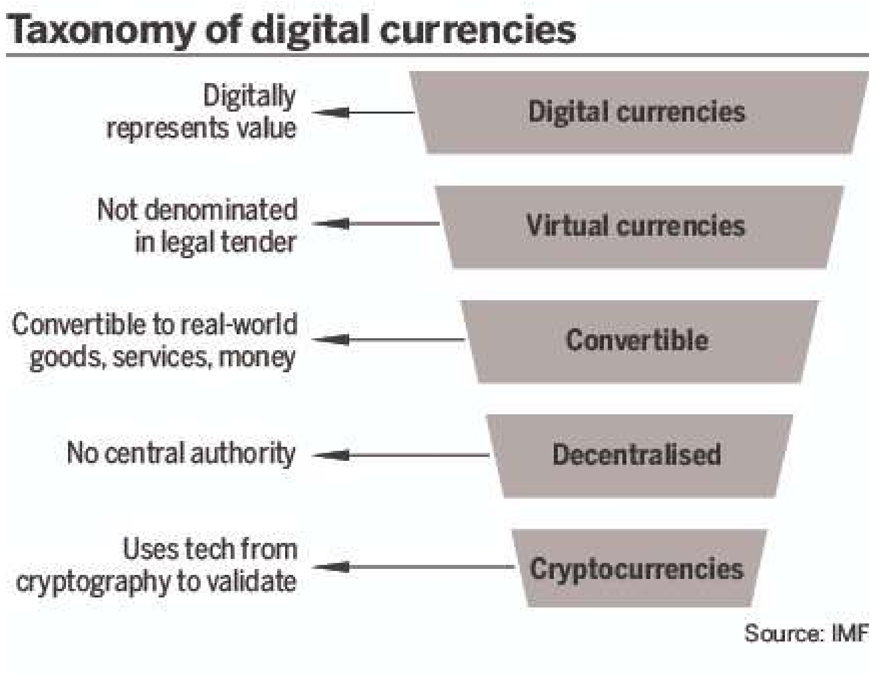
"Given the rapid increase in usage, we cannot really disregard that these assets could continue to increase in volume, which could result in more widespread implications for the financial system," says Cecilia Skingsley, deputy governor at Sweden's Riksbank. "But looking at it in February 2018, given that we can't see any strong signs that large banks are exposed to these assets, I don't see any systemic threats to financial stability."

But some entanglement is there: Fidor Bank, a German challenger bank, operates bitcoin.de, a cryptocurrency exchange where customers of the bank can take advantage of express trading.

In the UK, the country's second largest bank by assets, Barclays, has also taken a step towards embracing the crypto-community. In mid-March, US digital currency exchange Coinbase announced it had struck a relationship with Barclays that will simplify the process of withdrawals and deposits for UK customers of the Coinbase platform.

The announcement came less than two weeks after Mark Carney, chairman of the Financial Stability Board (FSB) and governor of the Bank of England, stated in a speech at the Scottish Economics Conference at Edinburgh University that "major UK financial institutions have minimal exposures to the crypto-asset ecosystem".

"Looking ahead, financial stability risks could arise if retail participation significantly increased or linkages with the formal financial sector grew without material improvements in market integrity, anti-money laundering standards and cyber defences," he then warned.



Regulation? What regulation?

In the same Edinburgh speech, Mr Carney called for regulation of the cryptocurrency industry. “The time has come to hold the crypto-asset ecosystem to the same standards as the rest of the financial system,” he said. “Being part of the financial system brings enormous privileges, but with them great responsibilities.”

The debate over how crypto assets should be regulated is increasing. From legislators such as the European Commission to central bankers and financial regulators to some of the crypto-community themselves, requests for regulation are numerous.

The meeting of the G20 finance ministers and central bank governors in Buenos Aires was tasked to look into potential regulatory responses to the growing phenomenon, where the FSB, the G20’s regulatory watchdog, was to report on private cryptocurrencies.

Benoît Cœuré, who chairs the BIS Committee on Payments and Market Infrastructures and is also an executive board member of the ECB, said in a conference call ahead of the meeting that he expected investor protection, anti-money laundering and terrorist financing safeguards to be “the priority” and that any discussion in the G20 would likely be “comparing experiences so far” and “discussing the pros and cons of regulation”.

A global approach

“Each public institution, according to its own mandate, should examine whether the legal toolbox at its disposal is sufficiently and appropriately capturing the emergence of this new virtuality,” says Mr Mersch at the ECB, appealing to authorities such as the Basel Committee for Banking Supervision, the International Organization of Securities Commissions and the Financial Action Task Force on Money Laundering. “Whether you call it currency, a security, a commodity, a financial asset, we don’t know yet [but] we need to come to grips [with it] in a standardised way, globally,” he adds.

Ms Skingsley echoes the need for a global approach, noting that any decision should be followed up with checks that the various countries’ legislation and supervision meet these potential new regulations.

“Part of the work on the global scale is also to agree a common language, what we mean when we talk about crypto assets, cryptocurrencies, digital currencies, etc,” she adds.

In the UK, seven crypto companies joined forces in CryptoUK in mid-February. The organisation is seeking to work with the government to set up regulation of the sector, or indeed to regulate itself, steps some say are undermining some of the original ideas behind cryptocurrencies – their unregulated and anonymous qualities. However, others state that such a move could help with future regulation, especially if more companies join CryptoUK.

Russia and China mull bans

Bank of Russia’s first deputy governor, Olga Skorobogatova, sees scope for transactions involving cryptocurrencies to create “new loopholes for unfair players and pose risks to the financial system’s stability”, which is why “co-operation within the EU as well as with other international organisations is important in order to develop common approaches to regulation and mitigate the related risks”.

However, Bank of Russia is also considering restricting the use of private cryptocurrencies in the country, according to Ms Skorobogatova, “because of the various risks they create for individuals or organisations and the financial system as a whole”.

Similarly, China – which used to be one of the most active markets for cryptocurrencies – recently banned exchanges, financial institutions and payment processors from handling crypto assets.

Still, some believe the crypto industry should not even be given any such platform. “Regulators, public sector entities and central banks should be very aware that if they do regulate [crypto assets], it is to some extent a recognition [that they exist] and could create the impression that they are a currency, which I don't think they are," says Mr Rohde at Danmarks Nationalbank.

Central banks strike back

But what if a central bank issues its own digital currency? Discussions of this possibility are gaining traction across the globe, fuelled both by central banks' own research efforts and media interest. But the lines are often blurred. There is talk of central bank digital currencies (CBDCs) or digital base money, both effectively names for a digital fiat currency introduced by a national bank. However, sometimes central bank cryptocurrencies are also being thrown into the mix – adding to the confusion.

The main difference between the two lies in cryptocurrencies' specific features: a cryptocurrency is a special kind of digital currency, one that is decentralised, uses cryptography technology to validate transactions and its denomination is usually not linked to any existing fiat currency. Meanwhile, a digital fiat currency is a digital replication of cash, denominated in legal tender.

So, what concept might actually be conceivable? And what makes a central bank digital currency a sensible idea?

In his spring statement, an update to the UK Treasury's annual budget, UK chancellor Philip Hammond announced a consultation into digital payments and the future of cash, indirectly calling into question the viability for one and two penny coins and £50 bank notes. This comes as digital payments have grown by 85% in the UK between 2006 and 2016 and cash usage is expected to fall to 21% by 2026, according to data compiled by trade body UK Finance.

The end of cash?

In Sweden, similar trends of increasing digital payments alongside a contracting availability of cash are the key reasons behind the research efforts into an 'e-krona'. According to a Riskbank e-krona project report, cash payments in Sweden's retail sector have fallen from close to 40% in 2010 to about 15% in 2016.

"The private sector is withdrawing the distribution network for cash and you see more and more shops accepting only card payments or certain mobile apps," says Ms Skingsley. "There is a material probability in Sweden that cash may not be generally available as a payment method in a few years from now. But not all people want to be dependent on the banking system and not all are allowed into the banking system."

The results of Riskbank's research will, by the end of 2019, either see the central bank reject plans for a CBDC, or develop and implement an e-krona in the next three to five years. But until then, many issues are yet to be determined: would an e-krona have the same features as a physical krona? How would eligibility be defined? Would the currency be register- or value-based?

A register-based model is what often attracts attention in research and commentary, as this could imply the public holding accounts directly with the central bank. This (while it could bring benefits such as allow for helicopter money and eliminate the lower limits on interest rates) is often criticised as causing a risk to financial stability, in that it could have implications on commercial banks' deposit bases, especially in times of crisis. The BIS also highlighted this in a report on CBDCs in March.

According to Ms Skingsley, an e-krona could both be based on an account, either managed by the central bank or the private sector, and on value in the form of a chargeable card, mobile application or digital wallet.

Ecuador was a pioneer when it introduced a digital central bank currency in 2015. The Dinero Electrónico was based on the US dollar – the only legal tender in Ecuador since 2000 – and allowed

Ecuadorians to exchange physical dollars to electronic money usable through their mobile phones without the need for a bank account. The pay-as-you-go system was operated by the central bank. However, a new law passed by Ecuadorian assembly in December 2017 ended the central bank operation of the system and passed it over to private banks as of the end of March 2018.

Other national digital currencies exist, such as the card-based e-Dinar in Tunisia, but in this case it is the Tunisian post service that is in charge of its operation, and not the central bank.

Still, in recent years, many national banks have undertaken research into the case for a central bank digital currency and several have been outspoken: mainly to say no to CBDCs, at least for now.

CURRENCY IS A PUBLIC GOOD THAT HAS BEEN ENTRUSTED TO CENTRAL BANKS AND WE ARE INTENDING TO DEFEND IT

Yves Mersch

A CBDC for everyone?

Mr Rohde believes the Danish central bank would not be able to add any functionality by issuing a CBDC. “On the contrary, there are some built-in risks related to the financial stability itself and we see a lot of problems in terms of money laundering and know your customer rules, as the central bank would have to obey the same rules as commercial banks,” he says.

According to the ECB’s Mr Mersch, if there ever was to be a digital euro, he believes at this stage it would have to be a direct digital representation of the existing bank notes, replicating all features – if intended or not. This would mean opting to keep a digital euro anonymous and not interest-bearing as well as keeping the link to the banking system.

But given the euro’s wide distribution and comparably high levels of cash payments within the common currency zone – one of the closest cafés to the ECB headquarters only accepts cash, a practice seen across several fashionable restaurants and cafés in Germany – the prospect of an e-euro may seem far-flung.

There has also been talk of one of the euro area’s members, Estonia, issuing its own digital token. The 'Estcoin' idea, based on an initial coin offering (ICO), which was floated in a blog post by the country’s e-residency platform, was shot down by the country’s central bank. “To put it bluntly, neither the government nor we, as a central bank, are considering introducing a cryptocurrency,” Eesti Pank’s governor, Ardo Hansson, said in an interview with German newspaper *Boersen-Zeitung* in mid-January.

A Filipino example

In the Philippines, the country’s ninth largest bank by assets, RCBC, is working with technology provider eCurrency to launch a private digital currency. The country’s central bank has adopted the general approach to “work closely” with financial institutions it supervises in their applications for fintech products, including “careful evaluation” of the proposed features, business model, detailed mechanics, security controls, and measures and risk management processes, according to Nestor Espenilla Jr, governor at the Bangko Sentral ng Pilipinas (BSP).

“Since this usually involves pioneering technology that is not yet proven in the Philippine market, the BSP approval involves a pilot implementation of the technology within controlled parameters for a period of six months,” he says. “Consequently, the BSP shall determine the appropriate supervisory approach to a financial institution's application, taking into account attainment of perceived benefits vis-à-vis attendant risks."

Once implemented, the RCBC digital currency will equate to the Philippine peso on a one-to-one conversion basis and could in future be used as a central bank digital currency, Jonathan Dharmapalan, chief executive and founder of platform provider eCurrency, suggested in an interview.

"If the BSP will consider the possibility of issuing its own CBDC in the future, serious studies on several issues, such as the definition of monetary aggregates and effective regulation of blockchain-enabled cryptocurrency payments, among others, must be undertaken," says Mr Espenilla.

An inter-bank currency?

Another point of consideration is a CBDC for wholesale payments only – but one that is not available to the general public. According to Mr Cœuré at the BIS, while this area still needs more work and experimentation, it "could help make settling trades of securities and foreign exchange more efficient in the future".

Mr Mohanty notes that the MAS has looked into a general public CBDC and while "the idea is compelling" there was no "clear empirical data" pointing to a need for such a solution.

"We also looked at tokenising the Singapore dollar for domestic payment but found that there is no convincing case to replace our domestic payment system," he adds. "But maybe there is an opportunity for our central bank in the context of cross-border transfers – this is part of our Project Ubin."

While the MAS is working on Project Ubin, Bank of Canada is experimenting with Project Jasper. Both projects are simulating real-time gross settlement systems on a distributed ledger platform – the technology underlying Bitcoin. But so far, the technology is not yet deemed mature enough to replace existing wholesale payment systems.

Additionally, not everything needs to be crypto-related, as the Single Euro Payments Area instant credit transfer scheme (SCT Inst) within the EU shows. It operates at much faster speeds than current crypto-technology (maximum 10 seconds per transaction) at a fraction of the cost, according to the ECB. But so far only about 25% of Europe's payment service providers have joined SCT Inst, which was launched in November 2017.

Meanwhile, Swiss lender UBS is working on its 'utility settlement coin', a private sector solution that seeks to use blockchain for clearing and settling financial transactions. For that, UBS has teamed up with Barclays, Credit Suisse, Canadian Imperial Bank of Commerce, HSBC, MUFG and State Street.

"Technological developments have raised questions about the feasibility and desirability of combining distributed ledger technology with the trust inherent in fiat currencies to create a central bank digital currency available to all," said Mr Carney said in a statement. "A more immediate priority is how to use these new technologies to meet the current demand for fully reliable, real-time payments."

A crypto-CBDC?

Yet, despite all the terminology confusion, the question of whether a crypto-CBDC is feasible remains. Venezuela issued its cryptocurrency Petro via an ICO – which is allegedly backed by the country's oil reserves – meaning that one state has ventured into unknown crypto territory. But the country's case is a special one, given the economy's troubles with hyperinflation and its history in defaulting on its debts.

"The Petro experiment certainly represents another milestone event in the ICO universe," says Daniele Bianchi, assistant professor of finance at Warwick Business School. "However, as of now at least, it looks more [like] an attempt to raise funds out of desperation than an actual attempt to introduce a digital currency backed by a hard commodity."

While Sweden's Riskbank is very advanced in considering a digital version of the Swedish krona, there appears to be no plan of going down the crypto route, according to deputy governor Ms Skingsley. "Central banks are in the business of providing the economy with money, something that works as a stable store of value, a unit of account and a working medium of exchange. I think we have a fairly competitive product," she says.

The ECB's Mr Mersch goes even further by pointing out that with a crypto-central bank currency based on consensus "acceptance [of a transfer or payment] would be done by probabilistic calculation, which does not concur with our legal definition of transfer of property. There must be 100% certainty that you agree the transfer, not probability that you have ownership."

So, will there ever be a central bank cryptocurrency? "It is a fair question," says Mr Mohanty at the MAS. "At an experimental level – yes, we will try. As a serious instrument, I think we are still very far away." The financial world will keep its eyes peeled.

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