



**BANKING
CIRCLE**

As crypto evolves,
how should banks
approach CBDCs
& stablecoins?



Once seen as the province of criminals and geeky basement-dwellers, crypto and web3 – an iteration of the world wide web based on blockchain – is now moving into the mainstream. According to 2022 research from blockchain data platform Chainalysis¹, cryptocurrency usage is growing faster than ever before, with total transaction volume reaching \$15.8 trillion in 2021, up 567% from 2020. There are now around 300 million people holding crypto² world-wide, with 75% of users saying they would like to use cryptocurrency to pay for goods and services.

Meanwhile, the ecosystem for web3 and cryptocurrency is widening: apart from Visa, Mastercard, PayPal and others now handling cryptocurrency, the number of acceptance locations and crypto-capable ATMs continues to grow apace, thanks in part to recent deals such as that struck between banking services provider Contis and hi.com to enable cryptocurrency use at 60 million merchants worldwide³.

To date, non-bank financial institutions (NBFIs) including crypto exchanges and specialist acquirers have embraced the move toward cryptocurrency more rapidly than banks. It's possible that crypto's growth to date has been hampered by an absence of clear cryptocurrency strategies from banks, as well as their inconsistent risk appetite.

“Banks should prepare to engage in the crypto revolution, or risk having to catch up.”

There's no doubt ongoing volatility and continuing use by the criminal fraternity make for significant risks when it comes to getting involved in web3 and crypto. However, recent positive moves by Central Banks in the development of Central Bank

Digital Currencies (CBDCs), plus new developments in regulation and risk management suggest we are moving to a new phase in crypto's evolution, and banks should prepare to engage or risk having to catch up later.

Crypto and web3's next phase

When it comes to powering the mainstream use of digital currencies, banks have an inherent advantage over NBFIs as they are directly engaged with the clearing and settlement system: the acceptance, transaction and settlement of cryptocurrency will grow fastest when banks play a full role. As a coherent regulatory environment emerges and CBDCs and cryptocurrencies linked to reserve currencies such as the US dollar grow in popularity, the time is right for banks to develop a coherent approach to web3 that helps them to stay ahead and build a competitive offering.

The developing regulatory environment for crypto gives banks reassurance when

By the end of 2021 there were 1.5 million cryptocurrency transactions every day



¹See Complyadvantage, 14 January 2022: "Cryptocurrency Transaction Volumes Grow 567% as Focus Turns to DeFi", <https://complyadvantage.com/insights/cryptocurrency-transaction-volumes-grow-567-as-focus-turns-to-defi/#:~:text=Highlights%20from%20a%20new%20report,from%20%247.8bn%20in%202020>.

²See Binance, 08 December 2021: "The World Goes Crypto": <https://www.binance.com/en/blog/markets/the-world-goes-crypto-top-5-countries-adopting-crypto-and-how-busd-helps-421499824684902531>

³See Contis.com, 24 February 2022: "Contis partners with hi to offer crypto and fiat debit card": <https://www.contis.com/blog/news/2022/02/24/hi-partners-with-contis/>

“Banks can add value and generate revenue by acting as a bridge between the fiat and crypto environments.”

it comes to trading and transactions. By the end of 2021, the US had passed some 21 pieces of legislation defining how cryptocurrencies should be treated in areas from taxation to investment and payments, while the Bank of Japan, Bank of England, Monetary Authority of Singapore and many other regulators are beginning to roll out legislation related to handling virtual assets including cryptocurrencies, from investment rules through to consumer protection.

In parallel with these moves to define cryptocurrency regulation, central banks including the ECB and those of individual nations such as Canada, Sweden, China, Brazil, the US and UK have been developing CBDCs. CBDCs promise many of the advantages of cryptocurrency, such as faster digital transactions with richer data, but also offer much lower

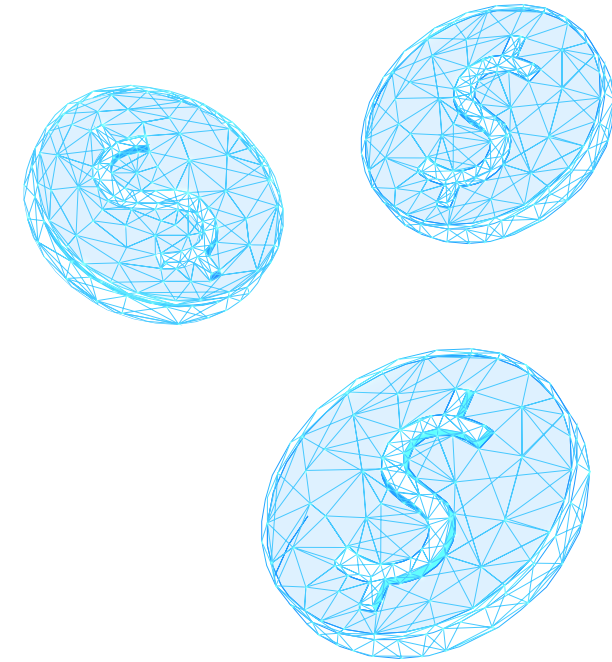
volatility since they are digital versions of national currencies backed by government commitment.

For its part, the web3 ecosystem has been working hard to beef up fraud and money laundering defences, with criminality as a proportion of overall transaction volumes reaching its lowest level to date in 2021, according to Chainalysis data. Recognising the benefit of reduced volatility in attracting wider consumer and merchant uptake, so-called “stablecoins” such as USD Coin (USDC) and Tether (USDT) have been launched. These are linked to the value of the US dollar and backed by a basket of cash and USD-denominated securities. Like CBDCs, stablecoins offer the possibility of very rapid settlement and lower volatility than classic cryptocurrencies.

However, as clearly demonstrated by the recent crash of algorithmic

stablecoin TerraUSD - and the knock-on effect that saw the value of Bitcoin, Ether and Tether plummet - not all stablecoins are as ‘stable’ as their name suggests. As an algorithmic stablecoin, Terra was not tethered to a fiat currency but instead used a complex mix of code and its sister-token, Luna, to stabilise the process. The crash revealed the importance of more robust regulation as well as the market need for bank-based stablecoins tethered to fiat currencies, to fill the gap and deliver cryptocurrencies that are reliably stable and offer lower risk access to crypto.

Other challenges also remain in the evolution of crypto and web3, not least the high cost of transacting on the Ethereum network. However, we may see costs per transaction reduce as new coding layers called rollups are introduced. Rollups settle transactions outside the main Ethereum network but post the transaction data back to the Ethereum network, while maintaining the same level of security as the Ethereum protocol. For instance, rollups



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such as Optimism and Arbitrum frequently provide fees between three and eight times lower than the Ethereum base layer itself, while ZK rollups, which have better data compression and can avoid including signatures, have fees between 40 and 100 times lower than base layer Ethereum.

What it means for banks

Stablecoins are already being used by crypto exchanges such as Binance, Coinbase and Kraken to reduce volatility when paying out from cryptocurrency into fiat-denominated accounts, and

Key Considerations



Stablecoins and CBDCs can offer faster settlement than fiat transactions on existing rails without the volatility risk of “pure” cryptocurrency.



The lower volatility of stablecoins compared to other cryptocurrencies means a reduced requirement to hold sufficient funds to cover overnight clearing and settlement, as well as other advantages.



The development of web 3.0 carries with it the risk of disintermediation for banks. Owners of digital estates such as Amazon and Meta may look to introduce stablecoins to facilitate payments inside the “metaverse.” These payments would run outside bank rails, meaning no fees and reduced customer engagement/loyalty for banks.



Banks can respond by acting as a bridge between fiat bank accounts and these and other forms of stablecoin, and between fiat currencies and “pure” cryptocurrency.

are accepted as legal tender by major payment networks such as Mastercard, Visa and PayPal. Given the consumer relationships and trust banks enjoy, we expect them to have a major role to play as stablecoins and CBDCs become more widely accepted and used. Banks have another advantage over NBFIs in that they have deep experience of working with governments to shape and implement consumer protection regulations while fostering innovation. For instance, it’s possible to hold cryptocurrency via an Electronic Money Institution (EMI), but as EMIs are not subject to the same regulatory scrutiny as banks, consumer trust and confidence may be lower.

To prepare for the widespread adoption of digital currencies, banks should be working with third parties as part of their ongoing digitalisation strategy. Banks should be looking to develop payment service infrastructures that can seamlessly intersect with crypto exchanges and wallets, including the development of “on ramps” and “off ramps” that enable customers to access

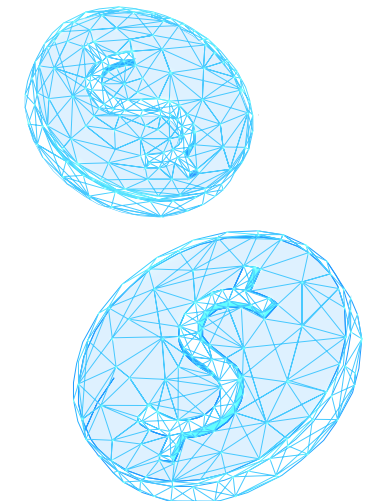
cryptocurrency funds held on exchanges from within a bank’s digital estate.

At present, consumers have to create an account with an exchange and hold separate “cold” (for storing cryptocurrency) and “hot” (for transacting) wallets, each with its own encryption key. Banks can add value for customers and generate revenue by acting as a bridge between the fiat and cryptocurrency environments. What’s more, banks enjoy far more consumer trust and protection than either EMIs or crypto exchanges – meaning that consumers are likely to feel more secure if a bank holds custody of their assets, rather than an exchange. If banks were to hold consumers’ cryptocurrencies, expert third parties could manage the technical and regulatory issues associated with creating a bridge between the bank’s digital estate and crypto exchanges to deliver a seamless, end-to-end experience for bank customers looking to use stablecoins and CBDCs.

Banks should prepare for the much wider propagation of

stablecoins such as USDT and USDC alongside CBDCs in the next 2-3 years. Although already in use, we expect stablecoins to outstrip the use of “pure” cryptocurrency as they are less volatile and supported by a defined regulatory regime. Likewise, we expect CBDCs to begin to replace pure fiat, especially for digital payments.

At Banking Circle, we are currently engaged in developing payment acceptance, processing and settlement solutions tailored to enable banks to get involved in stablecoins, including USDC, as part of wider acceptance and transaction settlement systems.





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