



From Stable Coins to CDBC's

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The path from disruption to adoption ...

We hope in this piece to map out the progression from stable coins to Central Bank Digital Currencies (CBDC). Stable coins were created as a product of necessity to ensure that the digital asset ecosystem continued to grow and evolve. This evolution we think likely leads to a product that becomes adopted globally by Governments and monetary authorities. Laying out this progression we will start with the reasons for the creation of stable coins, the various types and their attributes and then work through the rationale of centralised authorities to want to create their own stable coins.



Stable Coins

As with any disruptive technology its success is determined by the ability of its proponents to overcome the inevitable hurdles placed in front of it. One of the bigger challenges the digital asset ecosystem has had was access to readily usable capital. What needed to be created was an asset whose value was stable and easily coded into smart contracts. Existing digital assets could be used for this purpose, however the inherent volatility of their values negated their usability at scale.

What are Stable Coins?

They are digital representation of a USD that by virtue of this feature become programmable.

How are they created?

There are two main versions that have been adopted :

- Firstly, there is the version that is created by a trusted third party that holds an equivalent USD in a bank account backing each stable coin issued. One of the more prominent USD backed coin is USDC issued by Circle. Circle is a US domiciled company regulated and audited regularly who maintain the USD backing of USDC within the banking system.
- The other version is more complicated - Decentralised stable coins such as DAI -hosted and managed on Maker Dao and is a protocol that has been created to replicate a USD (ie remain stable) but uses Ethereum as the asset. The protocol creates a stable coin backed by Ether and adjusts automatically the number of ETH required based on the movement of the asset to keep the Stable Coin at a value of \$1. The amount of ETH must always be overcollateralised (minimum 150%) to maintain stable. This process means that the coin is completely decentralized. Accordingly its price stability is managed through a system of smart contracts. It does not rely on any banks, governments, or other centralized third party.

What are they useful for?

Being programmable, stable coins can be moved seamlessly between anyone with a digital wallet at fractions of the price and time required when moving USD inside the existing banking and finance framework. They have been used to facilitate trade of digital assets and increasingly have been used to facilitate global trade and payments between counterparts exchanging real assets or services.

Why were they created?

Any tradable asset whether programmable or not, that is performing an exchange function or acting as a unit of account is required to be predictable in its value. Transacting in digital assets, whose values are inherently volatile, means that there is a reduced certainty and hence friction in any transaction. Additionally, by being programmable stable coins can be moved on a blockchain-based, decentralized software platform such as Ethereum very easily, at minimal cost.

What is the use case in the “real” world?

Products only receive widespread adoption when they significantly upgrade the user experience or drive costs lower (read “increase margins”) for the institution offering the service. The use of stable coins certainly could meet the latter criteria, one day. Right now the cost per transaction remains too high to be scalable but we do know that there is one thing that technology does well and that is find solutions to problems. The biggest challenge on the most ubiquitous network, (Ethereum) is cost right now. That is being worked on via the latest scaling solution upgrades that are due to be released over the coming year. Interestingly Visa have launched a project that will allow users to settle stable coin transactions. It’s clearly just a proof of concept project however indicates that building those rails is deemed worthwhile by Visa. This move will remove hurdles for digital asset firms that previously had to switch between digital and sovereign currency to interact with Visa. It is just a first step but fungibility between sovereign currencies and digital currencies opens a whole new world of opportunities.

Why would a central bank want to create a Digital Currency?

Money is a tool. In a behavioral context it’s a fantastic mechanism by which we can ensure outcomes. It is a mechanism to encourage a functioning and productive society via rewards and penalties. There are various authorities involved in the creation or supply of money (the Treasury) and equally there are other entities that try and manage the cost of money (RBA). Then there is a suite of Governmental bodies that ensure that it is used for appropriate purposes (Federal and State Governments). Functioning governments must retain control of the monetary system if they are to remain relevant. While many in the digital space are Libertarians who think that this new egalitarian ecosystem will usher in new power structure, we are a little more circumspect. While the adoption of blockchain and DLT will usher in a far more effective and efficient economy it is unlikely to disrupt the current status or usher in the end of empires. It will require a response however from those in power to remain relevant.

Over the last 20 years what’s become clear is that the effectiveness of money as a tool to create desired outcomes has diminished. Supplying more money or liquidity to economies has resulted in asset price inflation and has created larger wealth divide between the haves and the have nots. What it hasn’t created is increased wages or higher paying jobs or at the risk of becoming philosophical a happier society. The solution to any crisis, be it the GFC or the COVID, was more money disbursed without a great deal of thought or direction and limited concern for the unintended consequences.

Why would a central bank want to create a Digital Currency?

What if there was a better way? And when I say better, I mean better for those in control of its creation. A future where money was disbursed directly to those who need it, tracked and traced and measured as to its effectiveness in achieving the underlying objective. This is in comparison to the existing system where its created and allocated perhaps those who don't need it or pumped into the banking system to be disbursed to those who can use it as leverage against existing assets to buy more assets. Indirectly that money may flow to jobs in the building industry through home building but its imprecise at best and comes with a raft of societal consequences.

We believe a better way is to issue money that is Government backed is a CBDC. Programmable and taxable, tamper resistant and traceable as it's on the blockchain. Managing the supply of money to match the demand and the data that is spun out from a digital currency allows a precise way of tracking and adjusting policy to economic conditions. Taking it to its dystopian end it is somewhat concerning how effective money potentially becomes a tool to modify behavior. This will be a challenge for society to manage the process and the transition, but to us it feels inevitable. What it certainly will do is usher in a period of dramatic growth in the decentralized finance space potential disrupting the need for stable coins backed by private companies unless they have features that a sovereign CBDC can't provide.

Most nations have started the process of investigating the merits and implications of creating a CBDC. The BIS (Bank International Settlements) has just completed a survey and study, they found that 60% of central banks are considering CBDCs and 14 per cent are carrying out pilot tests. "The Covid-19 pandemic has added new motivations to this journey," they wrote "While most [central banks] have no plans to issue CBDCs in the foreseeable future, central banks collectively representing a fifth of the world's population are likely to launch retail CBDCs in the next three years."

At the more granular level China have a pilot program running, Digital Currency Electronic Payments (DCEP), currently with a goal to have a digital currency functional by Q3 2022. Many perceive the DCEP program as a direct threat to status of the USD as the worlds trade and reserve currency. While the US appears to be lagging in their adoption of a CBDC, it is clear they are feverishly working in the background to respond. The fact that so many Central Banks are in the research and development phase displays that as a defensive ploy at least it merits the investment of time and resources.

The adoption of CBDCs, will in our view, be an inevitability and will act as a further wave to usher in the digitalization of money and finance.