Blockchain Assets
CRYPTOASSET MANAGERS • EST 2017

Photo above : Head of Bank of International Settlements - Agustin Carstens

Dear Investors,

In this newsletter I briefly cover the topics of Central Bank Digital Currencies (CBDCs) and Stable Coins. It is important to understand these complicated topics as they will be mentioned often in the mainstream press over the next few years and they are an important part of the crypto ecosystem.

But first - The Cryptomarkets Summary

Ouch! Is the one word sentence Jeff Bezos used in his 31 December 2000 letter to shareholders to describe the year-on-year collapse of Amazon's share price from USD 3.81 to USD 0.73 (over 80% down). He then went on to outline the Company's achievements and how it was positioned at that time for growth. Today Amazon is 27 years old, it's shares are trading at USD 106.22 and it's market cap is USD 1.172 trillion.

This last quarter for our Fund has been an 'ouch' period, we have experienced one of the worst ever crypto crashes and it looks like we are in another crypto winter. Our Fund unit

price is up 110% from inception five years ago, but painfully down 39% on a year-on-year basis. The pull back in the unit price this quarter is particularly unwelcome for investors who joined our fund over the past 12 months. The question on everyone's mind at times like this is how long will this crypto winter last and how will our assets perform once the thaw starts?

The 2018-20 crypto winter lasted around 30 months. My feeling is that this winter will be shorter, possibly much shorter. I say this because this time around we started with a greater level of adoption, a clearer regulatory environment and more advanced technology generally. In particular there is great optimism that the Ethereum up-grade - the Merge - which is scheduled for July/August will usher in a new period of growth for the Ethereum community and this will drive positive sentiment.

In terms of how our assets will perform when the thaw starts? We hold the very best assets in the cryptomarkets and expect them to perform very well when sentiment turns. There are some interesting comparisons between Amazon (27 years old - value USD 1.1 trillion) and Ethereum (7 years old - value USD 136 billion). Amazon has been called 'one of the most influential economic and cultural forces in the world'. It's an internet native business which has evolved itself from an on-line bookseller to a technology centred logistics powerhouse. We can think of Ethereum as blockchain native foundational infrastructure which will be used by companies (like Amazon), governments (perhaps for Central Bank Digital Currency settlements), small businesses and individuals to record and execute transactions. Everything from the change in ownership of a car to proving the provenance of diamonds to issuing education credentials can be recorded on a decentralised public blockchain, Ethereum has every chance of becoming the world's computer, the base layer upon which the world's systems and processes will be re-built over a period of decades. Ether, the native asset of Ethereum (which is used to pay for every transaction on the Ethereum blockchain) is the most direct way to have investment exposure to this evolving economy, it is like owning Amazon in 2000 only better because when you own Ether it's like owning a part of everything being built on top. Ether is the 'pick and shovel' of the blockchain economy.

I do not view the assets we hold as speculative in nature. A lot of people are foolish enough to try and trade these assets seeking a speculator's gain, this does not in itself make the assets speculative. There are credible valuations that have Ether valued at USD 10,000/coin (see here) and Bitcoin at USD 1,000,000/coin (see here). As the manager of the Fund I have done the research and made allocations based on the long term outlook for these assets. Nothing that has happened in the past few months has done anything to change my view of the potential for significant growth in the value of our assets. In fact quite the opposite. As various projects have failed and scams have emerged, the blockchain systems themselves have continued to operate as expected. There has been no need to bail out the system or to call for government help. Bitcoin and Ethereum are antifragile systems, they were built that way. It is inevitable that as the technology develops the adoption rates and use cases will continue to grow. But it is also inevitable that shonky projects and outright scams will come and go, each one causing harm to participants and denting the market, but this does not at all change our investment thesis and long term view of the technology.

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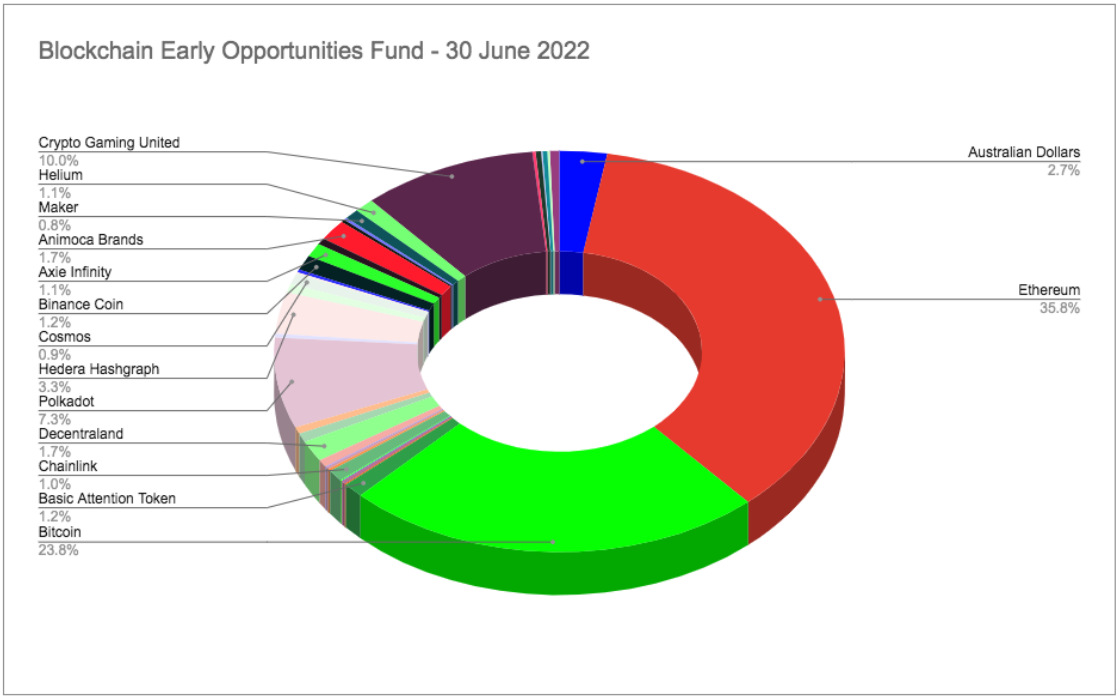
Fund Assets and Key Metrics

Metric	30 September 2017	31 December 2017	31 March 2018	30 June 2018
Unit Price	$0.93	$2.14	$1.18	$1.09
Return Since Inception	-7.00%	114.00%	18.00%	9.00%
Metric	**30 September 2018**	**31 December 2018**	**31 March 2019**	**30 June 2019**
Unit Price	$0.7480	$0.5178	$0.5507	$0.9501
Return Since Inception	-25.20%	-48.22%	-44.93%	-4.99%
Metric	**30 September 2019**	**31 December 2019**	**31 March 2020**	**30 June 2020**
Unit Price	$0.5270	$0.3937	$0.4408	$0.6034
Return Since Inception	-47.30%	-60.63%	-55.92%	-39.66%
Metric	**30 September 2020**	**31 December 2020**	**31 March 2021**	**30 June 2021**
Unit Price	$0.9449	$1.6575	$4.5682	$3.4543
Return Since Inception	-5.51%	65.75%	356.82%	245.43%
Metric	**30 September 2021**	**31 December 2021**	**31 March 2022**	**30 June 2022**
Unit Price	$4.9905	$5.7599	$5.3393	$2.1182
Return for the Quarter	44.47%	15.42%	-7.30%	-60.33%
Return for the past 12 months	428.15%	247.51%	16.88%	-38.68%
Return Since Inception	399.05%	475.99%	433.93%	111.82%
Assets Under Management	$33,015,753.35	$42,598,518.75	$39,984,807.74	$15,245,204.64



Central Bank Digital Currency (CBDC)

As the name suggests a CBDC is Government issued fiat currency in digital form.

There is a wholesale version where banks use a CBDCs for settlements between themselves and there is a retail version where individuals use CBDCs issued directly via a central bank account or through intermediary banks.

When mentioned in the press CBDCs are often put forward as government issued currency with all the benefits of blockchain technology. The inference being that with CBDCs the need for decentralised peer-to-peer cash systems, like Bitcoin, is reduced because CBDCs have all the transactional benefits of Bitcoin but better because it's issued by the government.

On the other hand CBDCs are controversial because many see them as potentially being used as surveillance money, or being politicised with dissenting citizens being 'closed off' from the monetary/payments system. More on this later.

The Bank For International Settlements (BIS)

The mission statement of the BIS is :

'Our mission is to support central banks' pursuit of monetary and financial stability through international cooperation, and to act as a bank for central banks.'

The idea of a 'Peer to Peer Electronic Cash System' not controlled by anyone is obviously an anathema to the BIS and indeed all central banks. One of their early reports, September 2017, sets out the background to Bitcoin and how a CBDC may be a good alternative.

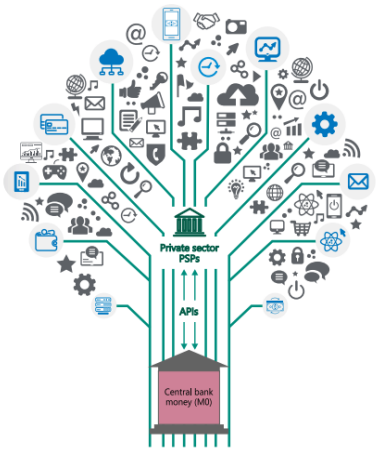
The BIS has for some time been actively encouraging the development of CBDCs. This November 2021 video address by the General Manager of the BIS, Agustin Carstens sets out very clearly the intention of CBDCs. In one word, it is control. Absolute control over who uses the money, what it can be used for, how much is issued and to whom it is issued. CBDCs will be surveillance currencies, Mr Carsten's makes this point very clear in this video from 2020.

Stop Press

Just as I was putting the finishing touches to this newsletter the BIS published two important documents.

The first is their Annual Economic Report 2022. This report contains a whole chapter on crypto and CBDCs. In short it sets out how all of the technology developed by crypto developers works and then sets forth why it should now all be controlled by central banks. The diagram below is a good summary of how they see the new monetary system developing.

A metaphor: central bank as tree trunk supporting a diverse ecosystem — Graph 7



API = application programming interface; PSP = payment service provider.
Source: BIS.

The second paper is titled 'Second consultation on the prudential treatment of cryptoasset exposures'. As the title suggests this document sets out proposed allocation limits for cryptoassets for central banks. Relative to bitcoin, for example the report proposes that a limit of 1% of reserve assets can be held in bitcoin (see news story here). I take this to be very positive news as it gives a green light to all central banks to hold bitcoin in their reserve treasuries. Ok, it is a small amount and perhaps it's a way to curtail greater adoption, but limits can change and as the level of knowledge and experience of working with bitcoin increases there is the possibility that limits can increase. Bitcoin adoption by central banks is a huge issue and this is a small but significant step on the path.

Interesting also that some of Vitalik Buterin's work is referenced by the BIS in their annual report. The work that is bitcoin and ethereum is so advanced that even the BIS itself will not be able to deny its merits and indeed they are attempting

to own it for themselves. It is clear to me that a group of computer scientists and mathematicians have a far better chance of solving some of the monetary issues we are facing than a group of bureaucratic executives.

...electric light did not come from the improvement of candles…'

2018 - The Financial Stability Board - Taking very little action relative to the USD 1.2 quadtrillion derivatives bomb and global debt but doing all they can to prevent the development of cryptocurrency and all the potential that it offers.

2018 - The core team leaders of the Ethereum project at a developers conference working on the development of a new financial infrastructure for the world.

The Reserve Bank of Australia - CBDC Project

The RBA has held it's CBDCs cards close to its chest, but we believe they have :

- undertaken an exploration CBDC project using Ethereum as the underlying technology;
- they are heavily involved with various payments committees at the BIS; and
- they are 'considering the creation of a central bank digital currency' for use in wholesale markets.

Deputy Governor (possibly a successor to Philip Lowe), Michele Bullock is very much involved with payments and CBDC initiatives so this will likely be an important project for her going forward. We watch with interest.

CBDCs and Monetary Policy

The BIS, as the 'Central Bankers Bank' is the closest thing we have to a globally coordinated monetary system. The 'system' manages a flexible monetary policy administered by independent central banks in each country. The flexible aspect is important to understand. Monetary economists, the Keynesian school of economics, hold the view that a centrally planned money supply can be used to flatten the business cycle, central banks can step in at times of crisis to 'save' the economy. They cite the great depression of the 1930's as an example where early intervention could have prevented the depths of depression. This

is a very attractive idea and these days monetary policy is being looked to as a panacea for all economic ills.

Of course, the other plank to economic policy for liberal democracies is Fiscal Policy, the Government investment/spending program. The trouble here is that Fiscal policy is banging up against debt ceilings and economic austerity measures which are a political death sentence. So pressure is continually being heaped on central bankers to pull rabbits out of hats, this is why 'The Fed went nuclear' and adopted 'unlimited QE' in March 2020. Although all central banks are now in Quantitative Tightening mode (for how long remains to be seen).

One step away from a nuclear monetary policy is Modern Monetary Theory (I set out here an excellent 45 min video explaining Keynsian v Austrian v MMT economics).

MMT is a disaster and the Keynesian flexible monetary supply system is a failing experiment. Of the 192 countries in the world running the experiment, perhaps only 8 or 10 have half-decent money.

Most countries have completely given up on even trying to manage their own monetary policy. More than 65 countries peg their currencies to the USD dollar while five U.S. territories and eleven foreign nations use the USD as their official currency (see here). These countries are incredibly poor and often kept afloat only because of USD loans from the IMF or World Bank.

A discussion about monetary systems is the elephant in the room when it comes to the BIS and CBDCs. There is no discussion at all about monetary systems. The talk on CBDCs is strictly limited to technology, the method of transfer and accessibility of the flexible fiat monetary system.

An alternative theory of economics is the so-called 'Austrian' school. Economists like Freidrich Hayek and Ludwig von Mises believe in sound money, free markets and that periods of depression are just a cycle in a healthy economy.

Bitcoin is sound money and fits better in an Austrian school of economics framework than a Keynesian one (see here for brief explanation). Bitcoin as an asset allows the

holder to opt out of the fiat money system. If you don't like MMT and have become sceptical of the virtues of Keynesian monetary policy, bitcoin is the off-ramp. In times of inflation, the benefits of the monetary structure of bitcoin will become clear. We are seeing this play out many economies (Sri Lanka, Turkey, Argentina, Venezuela and many others).

So if CBDCs are not about Monetary Policy what are they about

The People's Bank of China (PBoC) started reviewing CBDCs in 2014, they released their whitepaper on 16 July 2021 (here) and did their trial launch in February 2022. They are leading the world in the development of CBDCs and in the view of many they are leading the world in the wrong direction.

For the PBoC a Digital Yuan is considered surveillance money. Already China has a Social Credit System and they are amongst the most heavily surveilled citizenry in the world. The ability to have a financial system that can track every financial transaction and to exclude people from the financial system at the push of a button is highly attractive to totalitarian regimes.

CBDCs are diametrically opposed to cryptocurrencies like bitcoin. The very motive of CBDCs is to further centralise fiat issuance and capture the digital currency market away from crypto. Crypto has financial inclusion, privacy, decentralisation and freedom at its core whereas CBDCs have the centralisation of power and control at its core.

Alex Gladstein of the Human Rights Foundation has written extensively about the importance of privacy and its link to freedom. His essay, 'Financial Freedom and Privacy in the Post-Cash World' in the Cato Institute Journal, is an excellent summary of this complex but highly important issue (see here).

Stable Coins

As the name suggests, stable coins are designed to remain stable relative to a specific asset. A common example is a coin pegged to the value of the USD. There are two main types of stable coins.

Physically backed coins are backed with another asset. For example, the Perth Mint Gold Token (PMGT) is a stable coin as 1 PMGT token is backed by 1 ounce of Gold. A more common example is USDC which is a token backed with USD, each USDC token is backed by 1 USD.

A second type of stable coin are algorithmic stable coins. These coins are not backed by physical assets, instead they seek to maintain a peg to a specific asset using a complicated algorithm which adjusts the value of the coin depending on supply and demand and the price movement of the asset they are tracking.

Stable coins are attractive because they provide users with a quick and easy way to track the value of an asset but still stay 'crypto side'. For example, say an investor wants to swap out of bitcoin and put their value instead into USD, they can do this instantaneously by swapping bitcoin for USDC (the stable coin). Or if they prefer gold they could convert to PMGT at the push of a button. In the absence of stable coins they would have to sell their bitcoin for actual USD and send the funds to their bank, all of which takes time and cost. There is quite a lot of friction involved in moving between traditional and crypto markets.

As the value of crypto markets have grown from USD 10 billion in 2016 to over USD 1 trillion in 2022, the demand for stable coins has increased and today the total value of stable coins is over USD 150 billion and there are many dozens to choose from.

Our View and Use of Stable Coins

As a long term investor we seldom trade assets and therefore have no need to use stable coins, we do not hold any in the Fund.

On the positive side we view stable coins as a 'use case' on top of Ethereum as most of the stable coins are ERC-20 tokens, which means each time there is a transaction of a stable coin a fee is paid to Ethereum network operators. On the negative side, when there is a blow-up of any use case - including a stable coin - there is a hit to the crypto markets.

We have held in the Fund from time to time Decentralised Autonomous Organisation

(DAO) tokens which can act as governance structures for stable coins. For example, we held DigixDAO which was a governance token for gold backed stable coin Digix, we hold MakerDAO which is the governance token for an algorithmic stable coin DAI and we held a very minor amount in Luna (see below).

The blow-up of Terra Luna

The Terra Luna blow-up was one of the largest fiascos in crypto market history. It involved an algorithmic USD stable coin (UST) and a governance token known as LUNA.

Whilst the blow-up was anticipated by some it caught out many, including some very experienced and reputable names. If you would like to understand the details of the fiasco there is a great video explainer here.

Aside from Luna there are other questionable stable coins, the most concerning being the USD 'backed' (unaudited) Tether (USDT). This coin has been around for a long time and there is currently USD 67 billion tied up in USDT. Because of the lack of transparency and absence of a satisfactory audit, Tether has been a concern in the crypto industry for a long time. Our Fund has no exposure to Tether and as mentioned we do not need to use any stable coins. This said, the collapse of any large project in crypto obviously has a negative impact on valuations in the sector generally.

Although I am not a fan of many stable coins, there are some good ones and they are an important part of the evolution of the crypto markets. One such coin is USDC, this is a USD backed stable coin issued by a crypto native business called Circle. Circle is backed by Goldman Sachs and is one of the leading businesses seeking to build a bridge between the traditional financial system and the emerging blockchain based systems.

Regulation of Stable Coins and the Confluence of CBDCs

The collapse of Terra Luna has focused the minds of law makers and regulators who were already observing the evolution of stable coins, in particular fiat pegged stable coins. Add to this the research central banks are doing with CBDCs and

the stage is for the next chapter of crypto adoption.

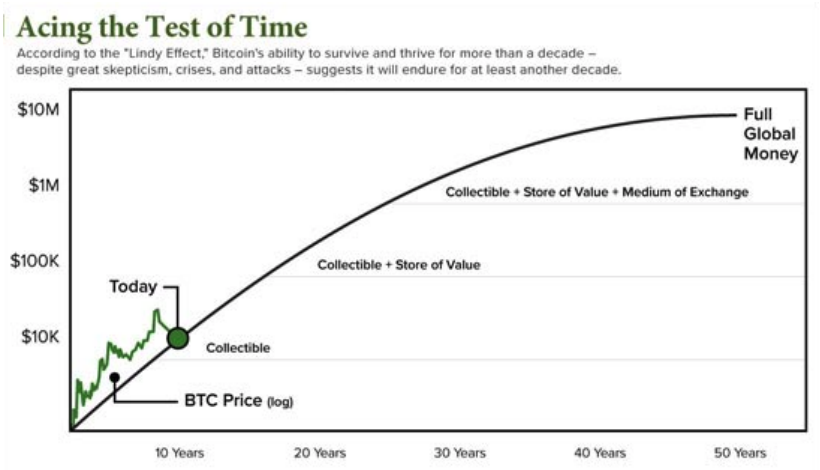
The US in particular seems to be awakening the fastest. At the Consensus 2022 conference we had 3 US Congress people speaking as well as the heads of a number of Federal agencies. None were speaking in terms of curtailing the adoption of crypto or banning anything. In fact quite the opposite, they were all speaking about how the US should seek to lead the way with the adoption of this technology. No doubt they want to do it in a way that preserves the position of the USD, but they are fully aware of the up-side potential of getting the policy settings right. We will watch with interest.

Concluding Comments

The bitcoin whitepaper, issued just 13 years ago released into the wild the possibility of an alternative monetary system. It is incredible to see what has thus far developed as a result of the computer science breakthrough outlined in that paper. Predicting what happens over the next decade with the development of CBDCs, monetary policy, the increased adoption of bitcoin specifically and crypto generally is a fool's errand.

All we can do is be aware that we are in a period of great change and that over the course of human history new technology has never not been adopted. Bitcoin is past the 'lindy effect', Ethereum and Hedera Hashgraph have a very good chance of being the dominant underlying software infrastructure for the future systems of humanity.

At times of great change there is great opportunity. Our Fund is well exposed to the very best assets which are bringing this



change and we are looking forward to seeing what happens next.

Finally, I have to share with you this brilliant summary of the Consensus 2022 conference (video here). The atmosphere at the conference was energised. There were over 20,000 people in attendance, it was like being at a football match. When I first attended Consensus in 2017 there were only 4,000 people and even that seemed like a lot at the time.

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As always, please do not hesitate to contact me on 04 5090 0151 or at ian@bca.fund if you have any questions.

Best Regards

Ian Love
Founder and CEO

To the extent that any of the information which we have supplied to you may be deemed to be "general advice" within the meaning of the Corporations Act, we draw your attention to:- (a) in preparing, supplying or conveying such advice, we did not take into account your investment objectives, financial situation or specific needs; and (b) (before acting on the advice) the need to consider, with or without the assistance of an authorised representative, the appropriateness of the advice having regard to your investment objectives, financial situation or specific needs and any relevant Information Memorandum.