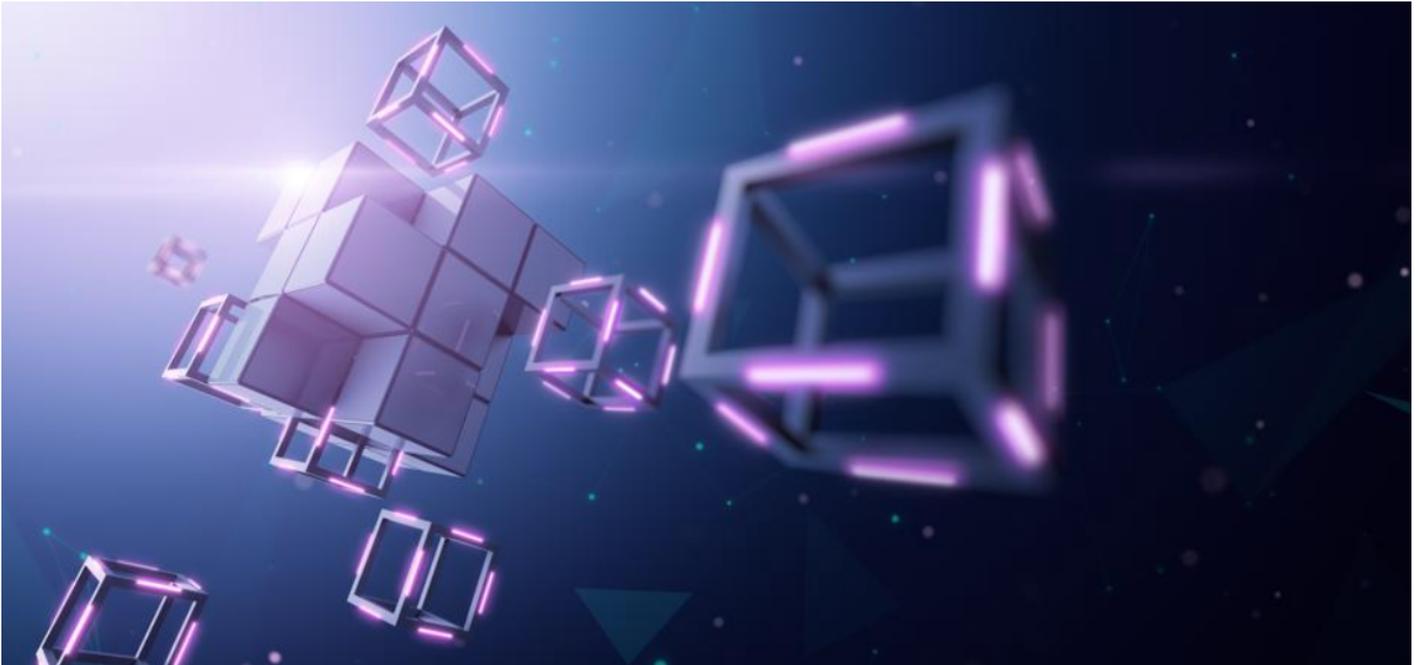




# Blockchain Assets

CRYPTOASSET MANAGERS • EST 2017



Dear Investors,

In this newsletter I cover Distributed Autonomous Organisations (DAO). What are they? How do they work? Do they have a future and do we have any in our Fund?

### *But first - The Cryptomarkets Summary*

The Fund finished the quarter at AUD 5.7599 up 15.42% for the quarter and 247.51% for the 12 months ended 31 December 2021. Although currently experiencing a pullback the outlook for crypto markets in 2022 is bullish. I say this because I have seen, this year, significant progress on regulations, adoption and scalability, these being the three main headwinds that have held back mainstream and institutional adoption.

On the regulatory front there are, of course, different approaches in different jurisdictions. However, no doubt, the US remains one of the most important. The crypto community was, therefore, very interested to watch, on 8 December 2021, the House Financial Services Committee hearings titled

*'Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States.'* Six of the top crypto CEOs participated in the hearing as well as a number of regulators and experts. The hearing explored how the government should oversee and improve regulation of the industry. For quite a few years it has been unclear how US Congress people will approach crypto; there have been fears ranging from the outright banning of Bitcoin to killing it through thousands of cuts of regulations. Judging by the type of questions and statements by Committee members I feel that we have turned a corner. While still not there the sentiment many took away from the hearing was one of optimism. Certainly the understanding of the technology and the issues has increased significantly and there does not appear to be a partisan approach developing. Thus far the discussions are apolitical and, more importantly, the law makers are aware of the geopolitical importance of not stifling innovation. There is a great summary/highlights video on the hearing [here](#).

Adoption. There are various indicators that inform us about the level of crypto adoption and there are different facets of adoption : retail, institutional and geographical (to name a few). Indicators such as transaction volumes, new wallet creations and block size are all up significantly. Retail adoption has been driven to a large extent by NFT initiative and play-to-earn gaming while institutional adoption is driven largely by the macro economic and regulatory environment. Geographic adoption has many nuances, everything from El Salvador adopting Bitcoin as legal tender to China banning Bitcoin mining to Australia approving ETFs (for Bitcoin and Ethereum expected in 2022). According to blockchain analysis company Chainalysis adoption jumped to over 880% in 2021; see their report [here](#).

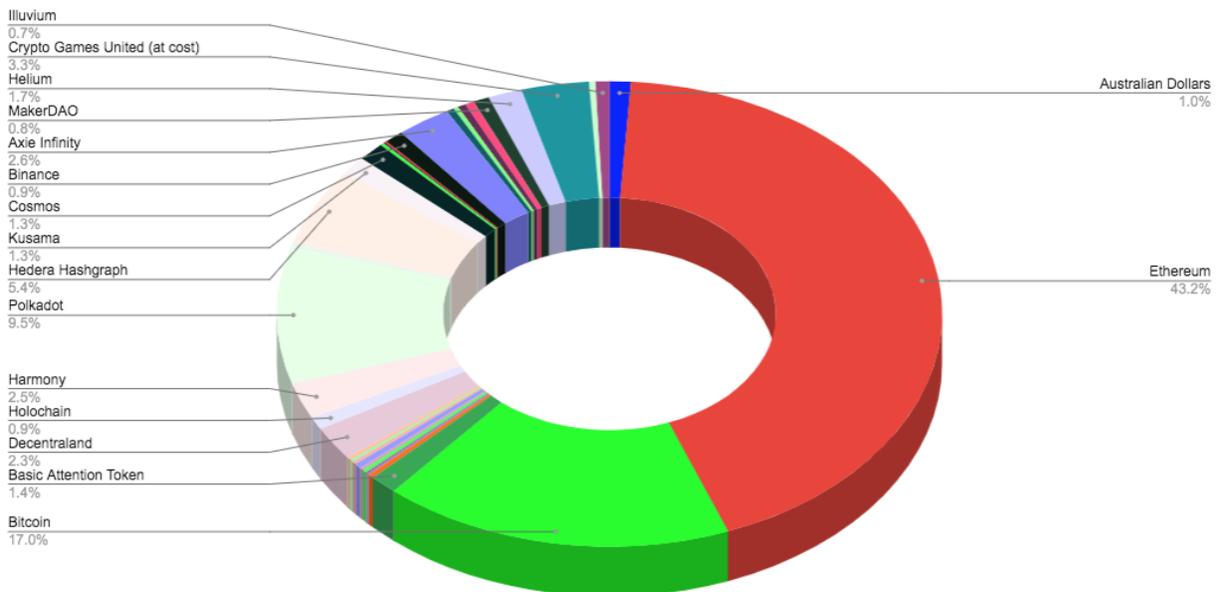
Scalability continues to be an impediment to mass adoption. Although there have been significant improvements many of the protocols are still in development mode. All eyes are on the Ethereum 2.0 upgrade scheduled for the first half of 2022. Although Ethereum 2.0 is not just about scalability, it is a major milestone on their development roadmap and should, if successful, result in more throughput and cheaper fees. On 2 January 2022 Vitalik Buterin published a tweet thread setting out a self-assessment of his comments and thoughts vs outcomes over the past decade. I summarized the tweet thread [here](#).

One standout on the scalability issue is Hedera who already have capacity for over 10,000 transactions per second and have done over 2bn transactions ([see dashboard here](#)). The Hedera price reflects this but, in my view, we have not seen the price come even close to its potential at this stage.

## 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		
Unit Price	\$4.9905	\$5.7599		
Return for the Quarter	44.47%	15.42%		
Return for the past 12 months	428.15%	247.51%		
Return Since Inception	399.05%	475.99%		
Assets Under Management	\$33,015,753.35	\$42,598,518.75		

Blockchain Early Opportunities Fund - 31 December 2021



## **What are Distributed Autonomous Organisations (DAOs)?**

DAOs are like corporations or organisations but they are decentralised and are autonomous. Well, that statement does not help much...if they are decentralised and without hierarchical structure how do they organise themselves, how can they be sued and how can the tokens they issue be of any value? By answering these questions, with some examples, I hope to explain why DAOs are going to be a big part of our future lives and the next big thing in Crypto.

Corporations have no physical form. They are an abstract notion brought into existence by the process of incorporation, which is itself an imagined process supported by laws that deem an entity into existence. DAOs are similar in that they are an abstract notion. They are brought to 'life' via publicly available computer code; they have no physical form other than the code which brings them into existence.

A key difference between a corporation and a DAO is that the former is run by the decisions of human beings on a real time basis, whereas the decisions of a DAO are automatically executed by code which has been programmed in advance of the event, that then gives rise to the

outcome (keep reading this will become clear later).

Another key difference is that corporations have centralised management who represent, and are, accountable to shareholders. The managers themselves cannot be sued (unless there are certain circumstances) but the corporation itself can be sued. DAO's have no managers as such; they have open source code which can be read by anyone but the people who write the code are decentralised, not accountable to anyone and, typically, not employed by the DAO. If something goes wrong with a DAO there is no specific entity or person behind it that can be sued although this is evolving.

### *Early DAOs*

One of the very first DAOs was known as 'The DAO' and it was a spectacular failure.

Launched in April 2016 The DAO raised USD 150m; it was the largest crowd sale in history. The purpose of The DAO was to allocate funds in a venture fund like manner to start-ups in the ethereum blockchain ecosystem. Unfortunately, shortly after it was launched, a bug in the software was discovered and USD 70m was hacked from the system. This hack, less than a year after the launch of Ethereum itself, was a major shock to the system and almost led to the

collapse of Ethereum. To this day some still believe that Ethereum is compromised because of the hack and its aftermath. I won't go into it here but read the book [Out of the Ether](#) if you are interested in this story.

Unperturbed by this setback the Ethereum community continued on its path and the next significant DAO was DigixDAO. DigixDAO was the governance token that was to govern the development of precious metal backed tokens, the first such one being Digix (a gold backed token). DigixDAO was a partial success but, in the end, was ahead of its time and holders of the DigixDAO token voted to return unused funds to token holders and dissolve the project. Our fund owned some DigixDAO and made some profit when the project was resolved.

Probably the earliest, long term successful DAO is MakerDAO (Maker). Maker is the Governance Token for an algorithmic stable coin called DAI. The value of DAI is pegged to the USD but it is not backed by the USD in the same way as other stable coins. Instead the software automatically adjusts supply/demand of the token so it tracks the value of the USD. More on this later in the newsletter.

#### *Funding Public Infrastructure and Goods through DAOs*

Vitalik has often written about how blockchain technology may solve the 'problem of the commons'. The 'problem of the commons'

refers to the situation where, for example, a group of neighbors agree to take down their back fences and share a large back yard instead of maintaining their own patch. The inevitable problem with this is that one or two people decide they do not want to pay for lawn mowing, but don't mind if someone else pays for the lawn to be kept. The inevitable outcome is the lawn does not get mowed and the common space (the commons) becomes overgrown and this is the tragedy. On a global scale climate change is a classic tragedy of the commons issue. Another example is ocean pollution. No one wants to pay for the protection and maintenance of these public goods but everyone wants to use them!

There are a number of initiatives seeking to solve the 'problem of the commons' issue, but the one that I feel has the most promise at this stage is [The Commons Stack](#), which is the brainchild of Ethereum Programmer and Researcher Griff Green. The Commons Stack is '...building commons-based microeconomies to sustain public goods through incentive alignment, continuous funding and community governance.'. Projects such as this give me hope for humanity. If interested there is a great presentation by Griff Green [here](#) and a great interview [here](#).

### *Single Purpose DAOs*

Some DAOs are very specific. One such example is the ConstitutionDAO.

In November 2021 it came to the attention of self proclaimed 'Critical Optimist, Software Engineer and Startup Nerd' [Jonah Erlich](#) that one of the original US Constitutional documents was coming up for auction at Sotheby's. The expected price being USD 15m - USD 20m. Johna had an idea that the freedom loving public should own the US Constitution and it should be available for all to see and enjoy; it should become a public good. He posted a tweet to that effect which led to a chain of events that resulted in the formation of [ConstitutionDAO](#) and the raising of USD 47m which enabled the DAO to bid at the auction on 18 November 2021.

In the end they were outbid by a hedge fund billionaire but the project was hugely successful for a number of reasons :

1. The funds were raised in less than a week and it was possibly the largest crowdfunding event in history;
2. It was global from the outset, the single currency used being Ether;

3. At least one esteemed museum (but anonymous) threw their lot in with the ConstitutionDAO as they did not have the funds on their own to bid at the required level;

4. A number of museums (and presumably art galleries etc) were in awe of the speed and amount of money raised using this method;

5. Once the bid level was reached and the project was unsuccessful, the funds were returned to donors; and

6. All of this happened with no trust account, no traditional audit, no fee for the origination team (30 people), no bank account, no fiat (ethereum only); and no third party intermediary.

Crowdfunding is not new. What ConstitutionDAO illustrated was the speed and ease with which it can be done and also the scale. Imagine what can now be done in terms of crowdfunding community projects. Museums and Art Galleries around the world will now be looking at ConstitutionDAO as an example of how they may fund their collections.

Coming back to the tragedy of the commons and potential funding solutions for environmental protection issues. It would be possible to create a perpetual DAO for funding, for example, the management of the Swan River. The creation of a DAO is simple, [this site](#)

does it all in one place. The more challenging part is thinking through the economics of the DAO. This will require an analysis of who are the stakeholders, the users, the polluters and how a payment/reward system can be built into the tokenomics of the DAO. Good tokenomics creates a user pays model which generates profit to pay for the improved maintenance (in this case) of the river. Again this type of user pays model is not a novel concept but the technology we have now makes such concepts easy to implement and administer and it brings the community closer to the solution. DAO token holders will hold the tokens they believe in, not just because they are financially rewarding. NFTs could also be a part of the ecosystem with individuals being able to essentially own a digital image linked to real world fauna and flora.

We have all these developments to look forward to and I, for one, simply cannot wait to see what comes next.

## **What DAOs do we own in our Fund**

### *Axie Infinity*

One aspect of DAO tokens is that they are used to help govern the direction of the project they represent. One good example here is the Axie Infinity token which is a DAO token (as well as a Utility token). The revenue (breeding fees + sales commission) from the Axie Infinity project

accrue to a contract held on the Ronan Ethereum Sidechain, the address is [ronin:a99cacd1427f493a95b585a5c7989a08c86a616b](https://ronan.avax.network/address/ronin:a99cacd1427f493a95b585a5c7989a08c86a616b) At present the value of the tokens held in this contract is USD 2.4 billion. How will these funds be allocated? Well, that will be up to the Axie Infinity token holders because, as holders, they can submit a proposal for comments and voting by the Axie Infinity community. This is very similar to the shareholder relationship in a corporation.

### *Nexus Mutual*

Nexus Mutual is the Lloyds of London on a blockchain with tokens linking the 'members' with the different types of risk. The value proposition in owning a NXM token is the same as that of being a member of Lloyds of London. As a token holder you are essentially directly insuring against risk.

At present the only type of risk insured by Nexus Mutual are risks found in the smart contract DeFi space, such as a smart contract being hacked. However, the intention of the Nexus Mutual project is to provide all manner of risk insurance. Nexus Mutual can be thought of as a DAO because of its decentralised funding model and autonomous contract execution mechanisms. For a detailed review of Nexus Mutual refer to [this video](#).

### *DxDAO*

The best way to think of DxDAO is that it combines the functions of corporate share registers with ASIC incorporation and filing records. It provides these services to DAOs in an automated and distributed manner using smart contracts.

Clients of DxDAO pay fees for using these services and those fees accrue in the treasury account of DxDAO, which is controlled by DxDAO token holders.

### *DeepDAO*

Deep DAO is a data analytics site for decentralized, autonomous organizations. DeepDAO presents extensive analytics and information gathering. The [main dashboard](#) product enumerates and ranks DAOs using several key metrics such as membership and assets under management.

There are over 2000 DAOs in operation but this is a tiny fraction of what is to come. Just as there are countless corporations and organisations (some good, some not so good) there are going to be many hundreds of thousands of DAOs. The DeepDAO project aims to be the Coinmarketcap ([which recently sold for USAD 400m to Binance](#)) of the DAO ecosystem.

One of the Founders, [Daniel Bar](#), is well known to me. Prior to immersing himself in Blockchain technology Daniel was involved in research and engineering roles in areas such as Quantum Computing, Nanoelectronics and Biosensors.

### *MakerDAO*

Founded in 2014 Maker is one of the earliest projects built on Ethereum and it is still one of the most successful.

The service it provides is fairly simple and unremarkable. It lends money against collateral, the ratio being 60%. The profit from lending accrues to holders of the MakerDAO token. Owning MakerDAO is like owning shares in a bank.

The novel aspect of the project is that the collateral is held in a smart contract and the loan is issued in USD stable coin called DAI. No humans are involved with the execution or administration of the transaction; there are no application forms, no repayment schedules, no auditors, no credit checks and no processing time. People who wish to take out a loan simply put in their Bitcoin or Ethereum or other cryptoasset into the system, the system works out the maximum loan amount based on the value of the collateral and makes the loan available in DAI which can then be converted to fiat and used for whatever purpose the borrower decides. If the value of collateral falls

below the required ratio the smart contract sells to cover the shortfall plus fees. Currently the MakeDAO protocol has USD 18.2 billion held in collateral.

### *Yearn Finance*

There are now many projects in the crypto world that produce yield. Mainly they are lending based protocols where owners of cryptoasset can lock their assets up in a protocol and earn interest based yield. One of the practices that has developed in DeFi is called 'yield farming'. As the name suggests the practice involves choosing a project that produces yield and allocating cryptoassets to that project ([see here for a fuller explanation](#)). In the TradFi this type of activity involves allocating fiat to projects that produce yield in the form of dividends (equities) or interest (bonds). The allocators are fund managers and financial advisors.

The Yearn Finance project is the automatic financial planner or fund manager of the yield farming space, or in the words of others 'Yearn Finance is a money robot that executes investment strategies across decentralized finance (DeFi) platforms with the aim of generating the highest returns with the lowest risk. The strategies deployed include providing assets for lending, earning project tokens with yield farming, providing liquidity or a combination of these and other investment

strategies across a wide range of DeFi lending protocols. The Yearn protocol allows you to easily take part in complex investing strategies by providing tokens to the platform. Its expanding suite of products is intended to simplify investing in DeFi and is gaining traction with investors.'

### *Ethereum Name Service*

The Ethereum Name Service (.eth) is to Web 3 (crypto) what the Domain Name Service (internet) is to Web 2.0 (.com). But it is more than just DNS. DNS typically just provides a link to a website service and email. A ENS provides a link to a digital wallet and to anything built in the Web 3.0 environment.

ENS is a DAO; it's a not for profit public good and its aim is to become 'The naming system for every digital resource in the world'. It is, however, not a replacement for DNS. At present so called 'top level' DNS names (and the 'right of the dot' words like .com .org and .fund) are issued and controlled by The Internet Corporation for Assigned Names and Numbers ([ICANN](#)). The ENS team have worked with ICANN, not only to secure .eth, but also to integrate existing ICANN 'right of the dot' words into ENS. This means that all DNS names such as CarInsurance.com can be linked to the ENS system so that the name is still .com but it can now be attached to a digital wallet and Web 3.0. For example, I have

ianlove.eth as a native .eth link, but I could also have bca.fund linked to a wallet/Web 3.0 via ENS. There is a very good interview with the main developer of ENS [here](#).

Our Fund does not, at this stage, own any ENS tokens.

## DAO Regulations

The Australian Government announced recently that they will be amending the Corporations Act 2001 to recognise DAOs as a form of incorporation. I have not yet seen any firm proposals on this but it will be interesting to see the proposals in due course.

## Other News

### *Crypto Games United*

We continue to hold CGU tokens at cost in our fund. We monitor this closely and will switch to a market based valuation once we feel that the daily volume of the tokens supports a market based valuation. The project is progressing well.

### *New Office and Team Member*

We moved into our office at 17/40 St Quentins Avenue, Claremont WA 6009 on 1 November. Drop-in visitors are welcome. For those in Perth the entrance is off St Quentins Ave; just walk up

the stairs to the courtyard and we are off to the right at courtyard level.

More important than the office we have a new team member. Michael Finn joins us as Senior Software Engineer. Michael's qualifications include a Bachelor of Science and Software Engineering from the University of Western Australia, where he is currently enrolled as a part-time PhD student. Prior to joining Blockchain Assets Michael worked for an autonomous vehicle company (Stealth Technologies) as a Research Engineer, primarily focusing on autonomous terrestrial and aerial robotics, while also partnering with UWA's AHRI to develop technology for agricultural applications. He has also spent time working in Melbourne as a developer for IAG's Digital division.

At Blockchain Assets Michael has responsibilities across the entire operations of Blockchain Assets Pty Ltd and the Blockchain Early Opportunities Fund including automation of processes, project research and analysis, portfolio management, cyber security and client engagement.

### *Perth Heat Baseball and Bitcoin*

On 16 September 2021 Perth Baseball team 'Perth Heat' became the first baseball club in the world to adopt '[The Bitcoin Standard](#)'. Even though baseball is not a huge game in Australia,

the announcement by Perth Heat made news headlines throughout the world (see Guardian article [here](#))

Shortly after the announcement Michael and I went out to meet the Perth Heat CEO and their Chief Bitcoin Officer (CBO) to find out why they did this, how they went about it and how they see it helping with the profile of their game and, their team in particular. One of the things they mentioned was they have been inundated with calls and queries from all over the world and, indeed Australia, by people like us wanting to know the answers to these questions.



*2022 Outlook*

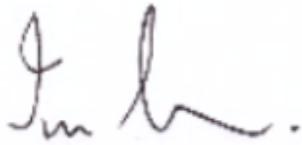
1. The Commonwealth Bank will roll out Bitcoin and Ethereum purchase capabilities within their banking application.

2. The First Bitcoin and Ethereum ETF's in Australia will be launched.
3. Jack Dorsey's Square, now called Block, will roll out products to on-board billions of people to Bitcoin.
4. We will see the New York Stock Exchange (and Bakkt crypto exchange) beginning the migration to crypto securities.
5. Some Latin American countries will adopt Bitcoin as legal tender. Turkey may also.
6. Ethereum 2.0 - Proof of Stake rollout in first half of 2022 will be successful. Ether flips Bitcoin as the most valuable asset on Coinmarketcap.
7. Play-to-Earn gaming will on-board hundreds of millions of users to crypto.
8. Sport franchise adoption of NFT and tokenization economics will grow significantly and will also on-board millions of users to crypto.
9. Distributed Autonomous Organisations (DAO's) will be the word of 2022 in the same way that NFT's was the word for 2021.
10. By 31 December 2022 Bitcoin will be over USD 100,000 and Ethereum will be over USD 10,000.

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As always, please do not hesitate to contact me on 04 5090 0151 or at [ian@bca.fund](mailto: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.*