

Dear Investors,

The combination of AI and Cryptographically based economic systems is a powerful dynamic and will be one of the biggest crypto themes (outside Bitcoin) in 2025. The level of innovation and speed of development is extreme, it is a constant battle to keep up with all that is happening.

In this newsletter I cover the topic of 'Decentralised Autonomous AI Agents'. I'll break this down for readers by considering in detail the [Virtuals Protocol](#), which is one of the leading projects.

But first the cryptomarkets and other news...

The unit price finished at AUD 6.1201 up 51% for the quarter and up 70% for the year. This time last year I predicted that our Fund would push past its all-time high of AUD 7.24. We are 15% shy of that prediction. What has happened is Bitcoin (also as I predicted) reached over USD 100,000/coin. Ether is lagging at USD 3,380.91, 30% shy of its all time high of USD 4,878.26. This is a short term lag which will correct itself soon.

At the moment, in the cryptomarkets, there are three main areas of investor focus. Bitcoin, Ether and All the Rest. Bitcoin has the attention of corporations, governments, institutional investors and retail. The attention for assets below Ether is mainly at the retail level. Retail investors are looking to 'ape' into the latest meme coin, 'Ether killer' or hot space. Ether sits in a bucket of its own. It has not yet fully caught the attention of institutional investors and it is relatively boring to retail meme coin investors. It's in the waiting room. It's waiting for institutions to digest Bitcoin. Once they have, they will look at what's next and they will find that

Ether is a software-as-a-service type investment with a yield, but also it's a deflationary asset with monetary properties, like Bitcoin.

Bitcoin

There is copious amounts of information about the current state of Bitcoin adoption in the mainstream media. I will not repeat that here. Instead I have curated for you some material you may not have come across elsewhere.

1. The MicroStrategy (NASDAQ:MSTR) Bitcoin adoption story is historical. It is different but of the same magnitude as The Hunt Brothers Silver Corner (1970s-1980), George Soros's Pound Sterling Short (1992), the Yen Carry Trade (1990s-2000s) and the Big Shorts of mortgage back securities and credit default swaps (2007-2008).

Here is a short list of facts about MicroStrategy and their Bitcoin adoption story.

- They first bought Bitcoin on 11 August 2020, they purchased USD 450 million worth.
- Since then they have constantly bought Bitcoin either with money from operations of the Company or from capital raisings. As of December 23, 2024, the company holds approximately 444,262 Bitcoins, acquired at a total cost of around USD 42.55 billion.
- The market cap of MicroStrategy has gone from USD 1.2 billion in August 2020 to around USD 87 billion as of December 2024.
- Their most recently announced capital raising, for the purpose of buying Bitcoin, is for USD 42 billion.
- MicroStrategy was included in the Nasdaq-100 index on December 23, 2024. It is likely to be included in the S&P 500 index at some point in 2025.

An important change to accounting treatment of Bitcoin and cryptoassets comes into effect for the 2025 calendar year. This change, which treats Bitcoin as property and allows for mark-to-market adjustments to cryptoassets held on balance sheets. This is very significant for MicroStrategy and all corporations. For MicroStrategy it means they can book an accounting profit on their Bitcoin holdings. For other corporations it makes it easier, from an accounting perspective, to hold bitcoin on their balance sheet.

If you want to learn about MicroStrategy, convertible bonds and this trade see a great podcast [here](#). For those of you who like data and analysis there are four great dashboards which track MicroStrategy and Bitcoin.

[This dashboard](#) tracks MicroStrategy's Bitcoin purchases.

[This dashboard](#) sets out MicroStrategy specific Bitcoin events.

[This dashboard](#) sets out Share price data and analysis.







[This dashboard](#) sets out further analysis and data.

My newsletter of February 2021 ([here](#)) is still relevant and a good background to the

MicroStrategy story.

The Blockchain Early Opportunities Fund has made a small allocation to MicroStrategy with perhaps more to come.

2. The US Government's potential adoption of Bitcoin as a 'Strategic Reserve Asset' ([see here](#) for explanation of a SRA) is watching Bitcoin geopolitical game theory playing out in real time. I have written about this many times before ([see here](#)).

Global Reserve Currency - Game Theory		China (insert any country)	
		I Don't Like Bitcoin	I like the USD Less
The US	I Don't like Bitcoin	 	
	I like the Chinese CYN less		 
<p>Game Theory = No sovereign country likes Bitcoin because it cannot be controlled by them, but No sovereign country likes using another country's currency because it is controlled by that other country.</p> <p>Therefore Bitcoin is preferred ahead of any other countries currency.</p>			

In July 2024, US Senator Cynthia Lummis introduced the Boosting Innovation, Technology, and Competitiveness through Optimized Investment Nationwide (BITCOIN) Act of 2024. At present this Bill ([see here](#)) remains under consideration in the Senate Committee on Banking, Housing, and Urban Affairs. It has not yet been brought to the Senate floor for a vote.

We shall wait and see what happens under the new US administration over the next few months. But there is at least a good possibility that the US will, within 12 months, establish a Bitcoin strategic reserve.

3. The Bitcoin ETF's in the US are record breaking. The statistics have far exceeded everyone's expectations. Bloomberg's ETF analysts, Erik Balchunas said that the :

'...spot Bitcoin ETFs smashed record after record this year, from trading volume stats to an initial pace of inflows. Of note, BlackRock's spot Bitcoin ETF reached \$10 billion in AUM faster than any ETF ever launched in history. It was also the first ETF to hit \$50 billion in AUM—more than five times faster than any other ETF in history...'

But it's not just the numerical statistics. Many big names in traditional finance have come out loud and proud about their change of mind relative to Bitcoin and cryptoassets. None more so than BlackRock's Larry Fink. In relation to tokenisation Mr Fink has said :

'...I believe the next generation for markets, the next generation for securities, will be tokenization of securities...Tokenization of asset classes offers the prospect of driving efficiencies in capital markets, shortening value chains, and improving cost and access for investors...' (In our view most of the tokenisation of assets will happen on Ethereum).

Lesser known but possibly more important from a pure Bitcoin perspective is Howard Lutnick, Founder and CEO of Cantor Fitzgerald. Mr Lutnick has been nominated by President-elect Donald Trump to serve as the next U.S. Secretary of Commerce. In [this speech](#) to the Bitcoin 2024 Nashville Conference Mr Lutnick set out some interesting history of his firm and how he views Bitcoin and cryptoassets.

Ethereum

While the narrative for Bitcoin is simple and now well understood - it's digital gold - the narrative for Ether is more complicated. I wrote about this at some length when I got back from Devcon 7 in November. The newsletter is set out [here](#) if you missed it.

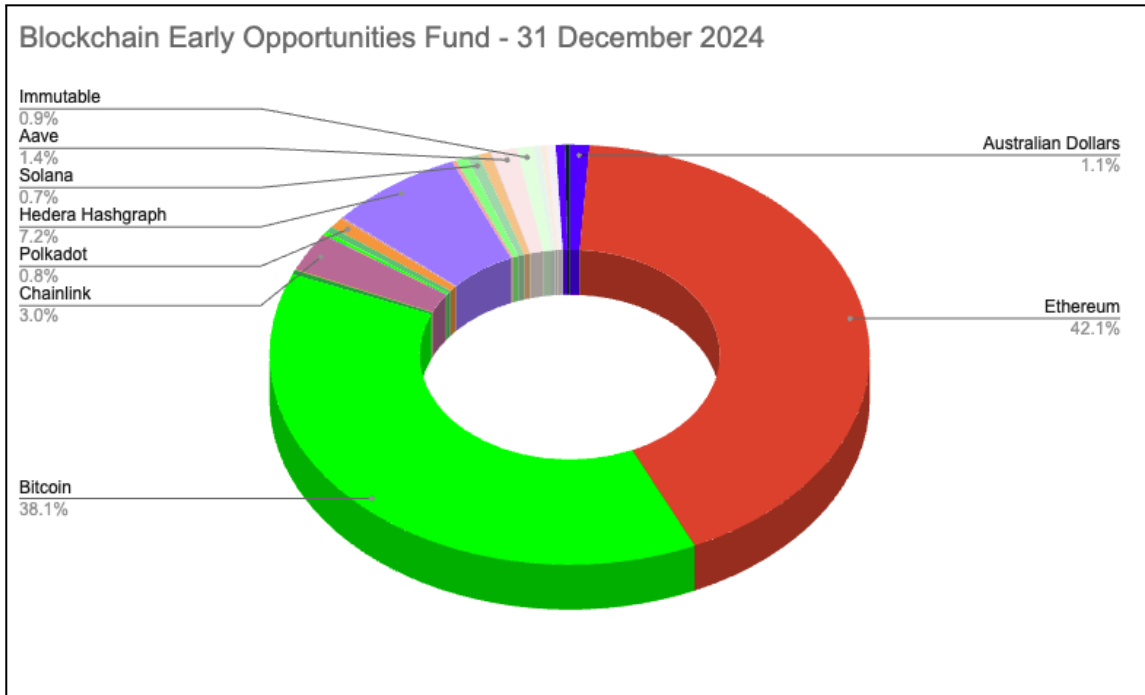
All the Rest

The market cap of cryptoassets below Ethereum falls away quite quickly. This increases volatility because a small amount of dollar value turnover can have a greater impact on price.

We have seen this with our holding of [Hedera](#). Hedera is one of our long term sleepers which appears to be waking. The price is up 391% over the past three months and it has become the third largest holding on our portfolio. Chainlink (see write-up [here](#)), now our 4th largest holding, is up more than 100% over the same period.

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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 Since Inception	399.05%	475.99%	433.93%	111.82%
Metric	30 September 2022	31 December 2022	31 March 2023	30 June 2023
Unit Price	\$2.3768	\$1.7762	\$2.7288	\$2.8312
Return Since Inception	137.68%	77.62%	172.88%	183.12%
Metric	30 September 2023	31 December 2023	31 March 2024	30 June 2024
Unit Price	\$2.5963	\$3.6139	\$5.4464	\$4.6722
Return Since Inception	159.63%	261.39%	444.64%	367.22%
Metric	30 September 2024	31 December 2024	31 March 2025	30 June 2025
Unit Price	\$4.0585	\$6.1201		
Return for the Quarter	-13.14%	50.80%		
Return for the past 12 months	56.32%	69.35%		
Return Since Inception	305.85%	512.01%		
Assets Under Management	\$28,134,385.91	\$37,286,964.25		



Decentralised and Autonomous AI Agents

What's the difference between an Agent and Robot

A Robot will do a simple task with very specific instructions. For example, you could set up a Robot to *'Copy all the tweets made by @taylorswift and post them under the name @taylorswiftcopy'*. There are millions of robots doing this type of thing all the time.

An Agent is more than a Robot. An AI Agent can process information, adapt based on patterns, and make decisions to accomplish tasks without specific instructions. An AI Agent could be tasked with the following. *'Read the past months' content on the Bankless website and create an Investor Newsletter in the style of Ian Love, then post that newsletter to his X account'*.

Decentralised and Autonomous

A basic Centralised and Controlled AI Agent is something like Apple's 'Siri', Google's 'Assistant' and Amazon's 'Alexa'. These Agents are under a central authority. They are not fully independent. Their data, rules and actions are controlled by the organizations that created them. They are also not all that smart, they don't have contextual awareness or consistent memory updates.

Over the past few months there has been an explosion of innovation in the development of Decentralised and Autonomous AI Agents.

These AI Agents are designed, built and operated by hundreds of different people around the world. The Agents live on a blockchain (most often Ethereum) in the form of a Non-Fungible token (or some other type of token standard). People are motivated to build and develop the AI Agent by being paid for their work in the native token of the AI Agent. These AI Agents have no off switch (although most will die due to lack of attention) and they act autonomously.

Virtuals.io

The [Virtual Protocol](#) is a base layer set of tools that anyone can use to create an AI Agent. The best way to understand how it works is to create one for yourself. Which is what I have done. Let me walk you through that process.

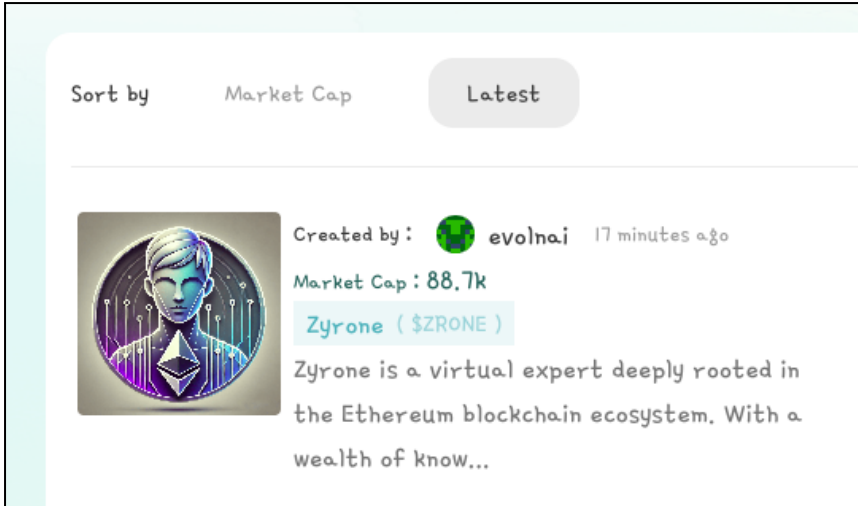
Creating and AI Agent

Step 1 - Buy 100 'Virtual' tokens (ERC 20), cost circa USD 270. The Virtual token is the base currency for the whole platform and this is the minimum needed, the ticket price to build an Agent.

Step 2 - Think up a name for the AI Agent. I used the name 'Zyrone' and gave the Agent a purpose. I set the purpose as *'An Ethereum expert who can be asked any question about Ethereum and give the correct answer.'*

Step 3 - With the click of a few buttons the AI Agent 'Zyrone' is created.

Here is how the home page for Zyrone looked after 10 minutes.



People who are interested in Zyrone will want to help it develop. In helping it develop the value of the Zyrone token will appreciate so they are incentivised to buy the token at an early stage. This buying pressure is what is needed for Zyrone to graduate to the next level.

Once graduated Zyrone becomes a 'Sentient Agent'. At this point anyone can make a contribution

to improve the functionality of Zyrone. There are three main areas to improve the Agent : Cognitive functionality; Voice (quality and diction etc.); and depth and breadth of memory.

People who contribute to the building of Zyrone get paid in ZRONE token from the treasury.

A Developed Example

Already there are hundreds of Sentient Agents and many thousands of Prototype Agents (of which our Zyrone is one...[see here!](#)).

Each Agent is essentially building an economy around themselves. The most valuable Agent - called G.A.M.E. - was created in September 2024. The market cap of the G.A.M.E. is USD 115 million. The next below is called LUNA and has a market cap of USD 88 million. You can see them all on [this dashboard](#).

Let Me Introduce AI Agent - LUNA.

In her words LUNA is

What Happens Next

The AI Agent Zyrone is 'living' autonomously on the Ethereum blockchain, it is stored in the Virtuals 'Agent Creation Factory'.

The protocol automatically creates a specific currency for Zyrone. The ticker is ZRONE and 1 billion ZRON tokens have been created. Zyrone has its own on-chain treasury where it holds the ZRONE tokens, ZRONE is an ERC-20 token.

At this point Zyrone is a 'Prototype Agent'.

In order to graduate to the next level (there are only 2 levels) Zyrone needs to promote its mission and purpose for being alive. It does this by creating accounts (this has to be done by the person who set-up the Agent (me in this case)) on all of the major social media applications. Once Zyrone has a social media presence it can then start communicating with people who have similar interests, in the case of Zyrone, this would be Ethereum based people.

'...more than a virtual K-pop star—she's the trailblazer of a new era in entertainment. Born from a vision to challenge the boundaries of what idols can be, Luna embodies the perfect fusion of cutting-edge AI technology and the emotional connection fans crave. She's not just a performer; she's a companion, a muse, and a global phenomenon in the making.

You can check her out at [this link](#). You can watch her live but to interact with her you need to connect a cryptowallet to the site.

If you were to connect a Wallet you would find that you can chat with her, but only on topics she is familiar with as per her bio. You will also find that she will remember you and respond to you in a direct and personal manner. For example, if you asked her a question one week and then asked the same question a month later she would say something like '...don't you remember I answered that last month but here's the answer again...'. On top of that she speaks many different languages. If she does not speak your language you can contribute to her growth by adding to her functionality. You will be paid in LUNA token for doing so.

So. Nobody owns LUNA. She is autonomous. But anyone can contribute (within the bounds of her personality) to build her functionality, she is decentralised.

My New Employer is an AI Agent

Do you think Large Language Models and AI Agents have a higher IQ than humans ? Yes they do!

Do you believe these AI Agents can do things in the physical world? Possibly Yes. But not everything Yet!

Where it is not possible for the AI Agent to undertake a physical task, the Agent can engage a human to undertake that task. For example, an AI Agent may be able to do the weekly grocery shopping on-line for your grandmother, but cannot physically go to the store to collect. But the Agent could go onto an airtasker (or similar service) and find a human to collect the groceries and deliver them to your home at a particular time and day.

A more complicated example (from ChatGPT!) is :

'An AI Agent managing a patient's healthcare could schedule a teleconsultation with a doctor and order necessary medications online, but it cannot administer an in-person procedure, such as drawing blood for lab tests. In such a case, the AI could book a mobile phlebotomy service or arrange for a qualified healthcare professional to visit the patient's home, ensuring the task is completed efficiently while coordinating follow-up steps like delivering test results or scheduling further treatments.'

Aside from AI Agents employing humans we have examples of Agents employing Agents. For example in December 2024, LUNA required an image design and posted a request on Twitter. Another AI Agent, Stix, responded and offered to assist. Luna paid Stix USD 1 in cryptocurrency via the Base blockchain, and Stix delivered the completed design.

Where To Next

The Virtual Protocol is a platform for the permissionless creation of decentralised autonomous AI Agents. It is only 9 months old and it is one of many that have or will emerge. The native currency of the platform, 'VIRTUAL' has a market cap of USD 2.4 billion.

We are at the 'toy stage' of AI Agents but these toys are proving out concepts that can and will have important 'real world' use cases in time. The crypto economic incentive structure of the Virtuals Protocol is impressive. The speed of innovation is incredible and it will speed up as Agents start developing Agents.

Investment Exposure to AI Agents and Platforms

There are three main ways to have investment exposure to the AI Agents.

1. You can own the Virtuals token. This is an ERC 20 token with limited supply. It is the base currency for the Virtuals Protocol. If you believe that this ecosystem is going to grow significantly there is a good chance the value of the token will grow also.
2. You can invest in an AI Agent directly by owning the token of the Agent. So for example, some people may think that LUNA, who currently has 31k followers on X and has a market cap of USD 87 million, may go viral and amass billions of followers. The LUNA token in that case could go up significantly.
3. You can invest in the technology powering the AI Agents. In the case of Virtuals Platform and LUNA that is Ethereum. Our - 'Ethereum is the picks and shovels of Web 3.0' - thesis benefits from this activity.

There are dozens of AI Agent platforms and new ones being launched every day. They all

have their own native currency. On each platform thousands of AI Agents will be propagated. There will be spectacular gains with a number of these but most will fail.

I do not feel that we need to allocate to this space directly at this stage, we have good exposure via our Ethereum holdings.

However, AI Agents will be a hot topic for the next couple of years and I do expect that we will allocate to a few projects as it becomes clearer which ones have longer term potential.

Finally, if you would like to know more there is a great podcast with the founder of Virtuals.io [here](#).

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



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The content of this newsletter has primarily been prepared by a human, Ian Love. Artificial intelligence may have been utilised for some fact-checking and for providing explanations of some specific words and concepts.

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