



Investment Thesis

Introduction

We are more than a decade into the crypto asset revolution that was started with Bitcoin in 2009. The underlying breakthrough in crypto is the creation of trust-minimised systems where human and institutional intermediaries are replaced with open source software. It is clear that the technology driving this revolution has found a market fit in three major categories:

- as a censorship resistant Store of Value,
- in Non-Fungible Tokens, and
- in Decentralised Finance.

Typically, crypto systems exhibit the following traits that make them distinctly different from earlier technologies:

1. **Permissionless** – Accessible to anyone. In the same way that the Internet made the world's information accessible to everyone, open blockchains will make financial infrastructure available to everyone with a smartphone and an Internet connection. Just as the Internet broke down the barrier for publishing information, anyone will be able to participate by interacting with open blockchains.
2. **Trustless** – Not dependent on a third-party, but on auditable software. Just like the information on Wikipedia is not dependent on one third-party actor, but a network of contributors, the financial infrastructure of the future will not be dependent on a single centralised actor like a bank, state, or financial institution.
3. **Censorship Resistant** – Financial freedom. In the future our financial system will be hard to censor as Decentralised Finance is peer-to-peer, borderless in nature and not tethered to geographical jurisdictions.
4. **Composable** – Composability in crypto are programs and protocols that anyone can code, interact with, and deploy publicly. The key to innovation amongst crypto assets is smart contracts and the open-source software that drives them. The idea that anyone in a network can take existing programs and adapt or build on top of them unlocks entirely new use cases have not existed online or in the traditional world. Composability will remain one of the drivers of innovation in crypto as this asset class matures.



This Investment Thesis sets out how Apollo Crypto thinks about investing in crypto assets that seek to take advantage of these properties and capture enormous value for investors.

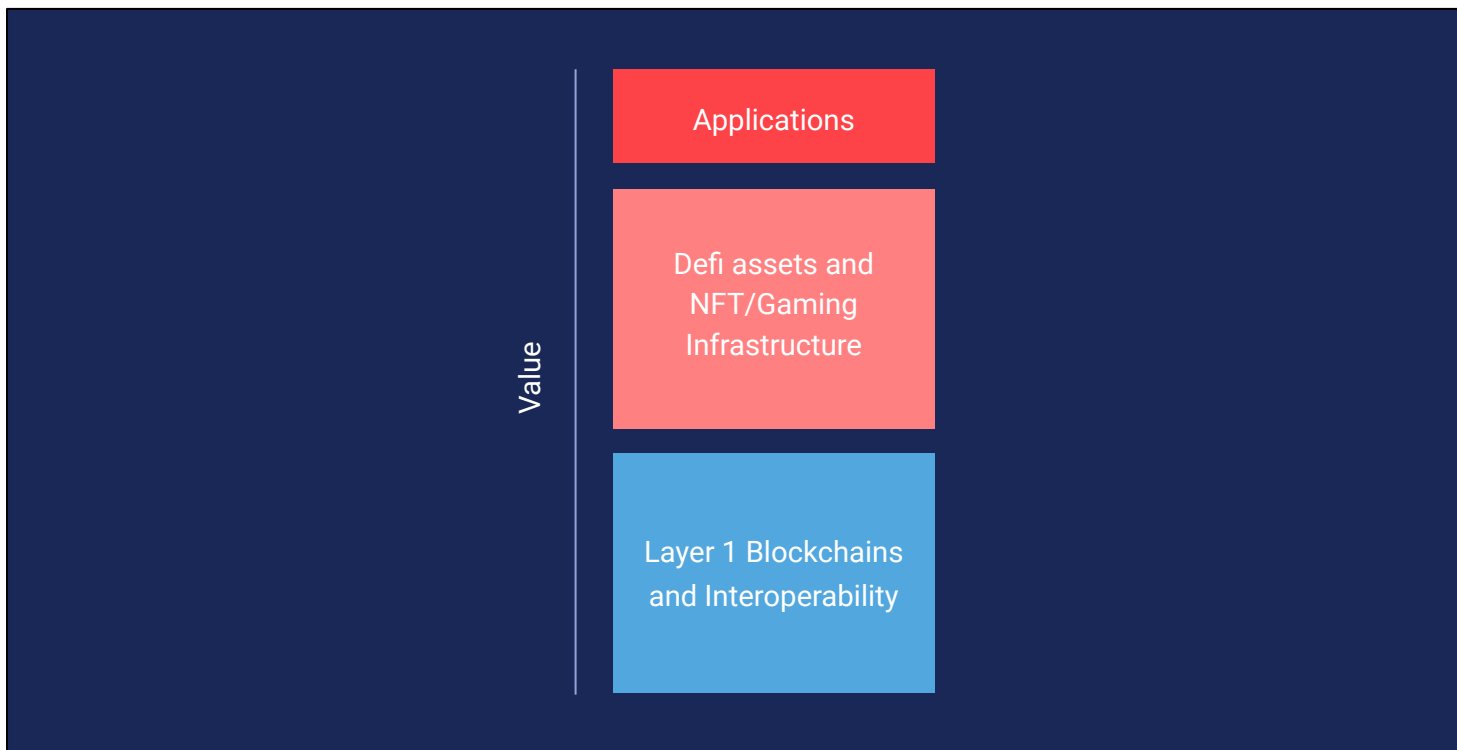
Apollo Crypto manages four funds. The Investment Thesis highlights how we think about making investments in crypto projects with long-term potential. In this regard, the Investment Thesis is more relevant for the Apollo Crypto Fund and the Apollo Crypto Frontier Fund.

This is the third iteration of our investment thesis. While there are consistent themes throughout this and previous iterations, crypto assets continue to evolve at a rapid pace. We believe active management is key to staying on top of these developments.

As ever, we remain alert and continue to invest in crypto assets with an open-mind, excited about what the future may bring.



Crypto Asset Infrastructure & Applications



Before we discuss each of the verticals of the Apollo Crypto Investment Thesis, it is worthwhile explaining how we think about crypto asset infrastructure and applications.

A number of key blockchains like Bitcoin and Ethereum have been compared to protocols that power the internet. These protocols serve as key back-end architecture for the day to day operations of the internet and its applications.

For example, SMTP, or Simple Mail Transfer Protocol is the standard internet communication protocol for email. Mail servers such as Gmail, Outlook and iCloud all use SMTP to send and receive email messages. SMTP sets out the rules for sending and receiving emails, and mail servers need to comply with these rules to work effectively. SMTP's origins date back to 1971 and was built by the early architects of the internet.

Bitcoin can be described as the internet protocol for the transfer of value. The Bitcoin network and software sets out the rules for transferring Bitcoin, the crypto asset, across the Bitcoin network to a recipient. The Bitcoin crypto asset is valuable and value can easily be transferred. If a network participant attempts to transfer Bitcoin without complying with the rules, the transfer will not be processed. Of course, other blockchains have and will continue to appear that propose different rules. It will be up to market participants to decide which blockchains have the most attractive rules, network and ideology, and ultimately which network will accrue the most value.



A key difference between SMTP and Bitcoin is investability. We cannot invest in SMTP. We can invest in Bitcoin, by buying and holding the crypto asset. Imagine if SMTP had a crypto asset attached to the protocol. Users would need to own “SMTP coin” to be able to use the network. Users might need to pay tiny amounts of SMTP coin for each email sent. Early investors might have recognised the potential of email and predicted increased use of email and therefore increased demand for SMTP coin.

The analogy to Bitcoin is very similar, and simple. By investing in Bitcoin, an investor predicts that more and more people will use Bitcoin leading to an increase in price. A distinction is made here on what “using” Bitcoin actually means. Below we discuss how “using” Bitcoin can simply mean holding onto it as an independent store of value.¹

Bitcoin is a “Layer 1” blockchain, a fundamental blockchain that sets out rules as discussed above. Ethereum is also a Layer 1 blockchain, focussed on smart contracts. There are many more Layer 1 blockchains, each with different rules and seeking to fulfil different purposes.

It is a huge amount of work to create a viable Layer 1 blockchain. By introducing the concept of smart contracts, the Ethereum network allows participants to build applications on a fully functioning blockchain. Participants no longer need to create a blockchain - they can simply build on top of one, as long as they comply with that blockchain’s rules.

Applications in crypto are like mail servers to SMTP. Mail servers, like Gmail and Outlook, are applications built on top of SMTP. Entrepreneurs are free to build new mail servers offering users new functionality that compete with incumbents like Gmail. But new mail servers will still need to use SMTP, there is only one protocol. Investors, should they be able to invest in SMTP, will be comfortable knowing that any further activity at the application layer will lead to more demand and activity at the protocol layer.

Crypto assets and projects function in a similar manner, with a key difference - while there is only one SMTP, there is a free market to construct alternative blockchains. It is our job at Apollo Crypto to find and invest in the blockchains and the applications that will accrue the most value.

¹ It is critical to note here that blockchains are open-source, meaning the rules are clear. Blockchains are also decentralised, so the rules cannot easily be changed. Developers develop with safety, knowing the clearly set out rules aren’t going to change on the whim of an executive. There have been endless cases of developers and business owners creating applications on networks like Facebook, Google and Apple, only for rules to suddenly be changed, with often critical consequences for their businesses.



Store of Value

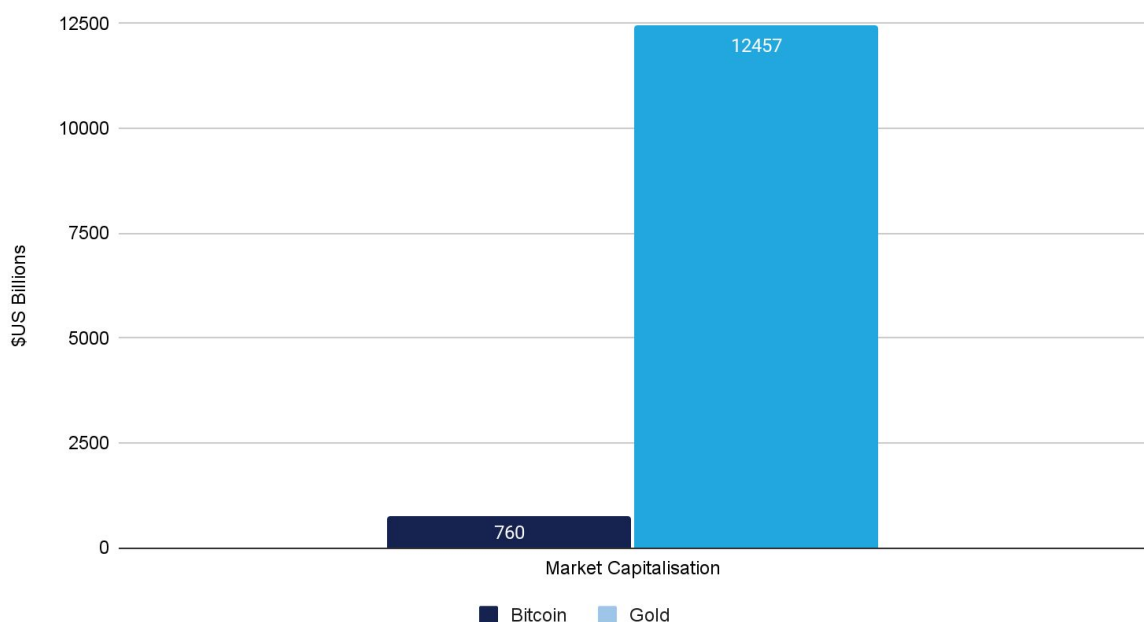
Store of value assets retain purchasing power by being durable, accessible, and tradable in the future. In modern times tangible mediums such as money, currency, commodities and real estate have been good stores of value. However, blockchain technology has enabled a paradigm shift in wealth preservation through Bitcoin.

Bitcoin was born initially as a 'decentralised peer to peer currency' in the wake of the global financial crisis in 2008. Its design as programmable money ensured a fully decentralised, digital medium of exchange with a finite money supply that could not be inflated or corrupted and also opened up new avenues for innovation that are not possible with a physical commodity such as gold.

Bitcoin's label of 'peer-to-peer decentralised currency' quickly transitioned to a 'store of value' or 'Digital Gold' as the market began to appreciate its unique properties of scarcity, censorship resistance, security, resilience and longevity as an asset. Bitcoin is unrivalled by any other crypto assets within the 'Store of Value' category as it is the original, largest and most decentralised crypto asset on the market.

Core to Apollo Crypto's investment thesis is Bitcoin's store of value properties which will withstand the test of time. We believe that corporations and nation states across the globe will become more accustomed to Bitcoin's characteristics as a digital 'Store of Value' and will add this asset into their treasuries and reserves, legitimising it as a global reserve asset. Similar to the assets listed in the diagram below. With a modest outlook on the future market capitalisation of Bitcoin, reaching above half of Gold's would see a ten times multiple in price appreciation in this single crypto asset alone.

Market Capitalisation of Bitcoin VS Gold



Key drivers of our outlook on Bitcoin's future as a global reserve asset are:

Macroeconomic Environment: We believe a macroeconomic environment similar to the Great Inflation period of the 1970s is an increasing possibility. Central banks are starting to hike interest rates to combat rising inflation, as the world saw in the 70s and early 80s. This period saw the value of traditional investments such as bonds, real estate, and infrastructure erode approximately two thirds on a nominal basis. As inflation runs rampant in modern day global markets, investors might see increased value in Bitcoin as a scarce and inflation resistant asset.

Continued Adoption: Bitcoin as a long term store of value is increasingly being accepted by individuals, companies, financial institutions, local governments, and nation-states. Today, 7.4%² of Bitcoin is stored in ETFs, countries and companies combined. The introduction of Bitcoin ETF futures products available across several markets and the additional 12 Bitcoin ETF filings waiting for SEC approval, some of which are for funds that directly own Bitcoin are demonstrating the strong market sentiment of Bitcoin and its place in a well balanced portfolio.

Remittance Industry: Remittances are a \$589 billion-dollar a year industry³ and a major source of wealth for low to middle income countries. Bitcoin is beginning to facilitate remittances by removing intermediaries and reducing the costs of overseas payments. We encourage readers to compare sending Bitcoin overseas to their experience sending foreign exchange. Bitcoin is faster, cheaper and more secure. Many companies have begun developing software to facilitate Bitcoin remittances without requiring their users to have to understand crypto assets.

² <https://www.buybitcoinworldwide.com/treasuries>

³ <https://www.worldbank.org/en/news/press-release/2021/11/17/remittance-flows-register-robust-7-3-percent-growth-in-2021>



A Multi-Chain Future

It is not possible for a single blockchain to facilitate the mass adoption of crypto assets and this means that the future will be Multi-chain. This has two key impacts on the portfolio; a diverse portfolio of Layer 1 blockchain assets is optimal and projects that enable cross-chain functions will accrue value. The key drivers underpinning the movement towards a multi-chain future include:

Scalability Issues - Transactions fees on the leading smart contract blockchain, Ethereum, have increased dramatically and have priced out the average user. Despite this, the Ethereum ecosystem continues to dominate due to it being the most decentralised and secure smart contract platform.

Chain Specialisation - We believe different chains will become specialised for different use cases. For example, Bitcoin serves as a 'Store of Value' that is not designed to be actively transacted (on the main chain), while Solana is an experimental DeFi hub where retail users are not priced-out due to gas fees like they are on Ethereum. These two chains serve different functions to the broader market, but both play an important part in facilitating mass adoption of crypto assets.

Technological Advancement - The rapid pace of development in the crypto asset industry means that blockchains can now interact and communicate with each other in a more secure, trustless, and efficient fashion. This inter-blockchain communication enables new avenues for synergy, composability, and value creation between different blockchains.

This belief in a multi-chain future has two main impacts on the allocations within the Apollo Crypto portfolios. The first is that we believe a diversified portfolio of leading smart contract platforms is optimal for capturing value across the entire crypto ecosystem.

The second is to allocate capital to the application protocols that are enabling cross-chain communication and bridging. These bridging protocols are able to capture fees and provide cash flows to liquidity providers and token holders.



Non-Fungible Tokens (NFT's)

Non-Fungible Tokens are bringing blockchain technology to the crypto-agnostic masses. NFTs are digital assets that represent a wide range of unique intangible items such as social media Profile Pics (PFPs), virtual land, digital art, and in-game items, among others. The token represented by each NFT makes them unique, easily verifiable, and digitally scarce. We believe that NFTs will continue to trend towards mainstream adoption and bring crypto assets to the masses in a way that DeFi would struggle to achieve on its own.

Non-Fungible Tokens have mainstream appeal due to their usability and familiarity. NFTs feel familiar because many people have opened up a pack of sporting cards, made an in-game purchase (or seen kids make them), collected something desirable, or appreciated an amazing work of art. NFTs bring these experiences into our digitally native society by making them verifiably scarce, unique, and owned by an individual.

We believe that value can be captured by investing in the marketplaces and blockchains on which NFTs are traded and held on. While investing directly in NFTs has reaped lucrative rewards for traders and speculators throughout 2021 and early 2022, we view direct investment by Apollo Crypto into specific NFTs as highly speculative and risky.



Trevor Jones is one of the most innovative and top-selling artists in the crypto art medium. He primarily creates paintings and animates them afterwards.

The Bitcoin Bull is an iconic NFT and takes inspiration from real world master Pablo Picasso, crypto symbolism, and the cubist genre. The 1/1 NFT was originally purchased for US\$55,555 and is currently listed for over US\$55 million on Nifty Gateway.

Trevor Jones, along with artists like Beeple and Pak, helped launch NFTs into the popular zeitgeist of collectors in 2020.

The Bitcoin Bull, 1/1 NFT by Trevor Jones

Gaming

Blockchain gaming represents a new era in the gaming industry, integrating the concepts of blockchain technology into the gaming world. Blockchain based games provide an unparalleled advantage to users by allowing them to have complete ownership of in-game assets as well as implementing exciting new token based incentives for play. With more than US\$70 billion being spent on in game assets in 2023 it is a sizeable market available for capture.

Throughout recent years we have seen major brands join the race to become a part of the blockchain gaming trend in various forms as the wider gaming industry continues to grow rapidly. Whether it be [Ubisoft's 'Quartz' platform](#) or [Immutable partnering with media giant Disney](#), it is clear that business leaders are positioning themselves to take advantage of the opportunities blockchain gaming presents. Aptly put by EA, blockchain gaming is ["the future of the gaming industry"](#).

There are many ways to invest in blockchain gaming both directly and indirectly, at Apollo we take an indirect approach to investing in blockchain gaming by focusing on the infrastructure supporting this new ecosystem. An example of Gaming infrastructure is the Layer 1 or Layer 2 blockchain assets that are utilised in these games.



Non-Fungible Tokens (NFT's)

Decentralised Finance represents the first time in human history that we are witnessing open and permissionless innovation in finance on a global scale. We believe that DeFi is in the early stages of automating the financial sector by providing an alternative to traditional intermediaries, an alternative driven by open source software, permissionless usage and censorship resistance. By using smart contracts and blockchain technology, developers are pioneering a more efficient, fair, open, decentralised, and trustless financial system.

Exposure to DeFi can be achieved by investing in both base Layer 1 blockchains and the DeFi assets related to specific financial applications. Within DeFi, certain financial primitives have gained significant traction and product-market fit. These include:

- **Lending & Borrowing Platforms** – Allow users to earn an interest rate on assets & borrow against these assets e.g. Aave;
- **Decentralised Exchanges** – Blockchain-based peer-to-peer trading where users retain custody of crypto assets e.g. Uniswap;
- **Derivatives** – On-chain financial contracts that allow users to gain long or short exposure on a wide variety of assets e.g. Perpetual Protocol;
- **Yield & Aggregator Protocols** – These protocols implement highly technical, algorithmic, and autonomous strategies to earn depositors high returns e.g. Yearn Finance;
- **Synthetic Assets** – Blockchain assets that can trustlessly replicate non-blockchain assets such as equities e.g. Synthetix.

We invest in high-quality DeFi assets within these relatively mature sectors of DeFi with a medium to long-term investment horizon. Both qualitative and quantitative information is used in the investment process and our investments range from early-stage venture capital to open market purchases of established projects.

Other financial primitives being explored in DeFi:

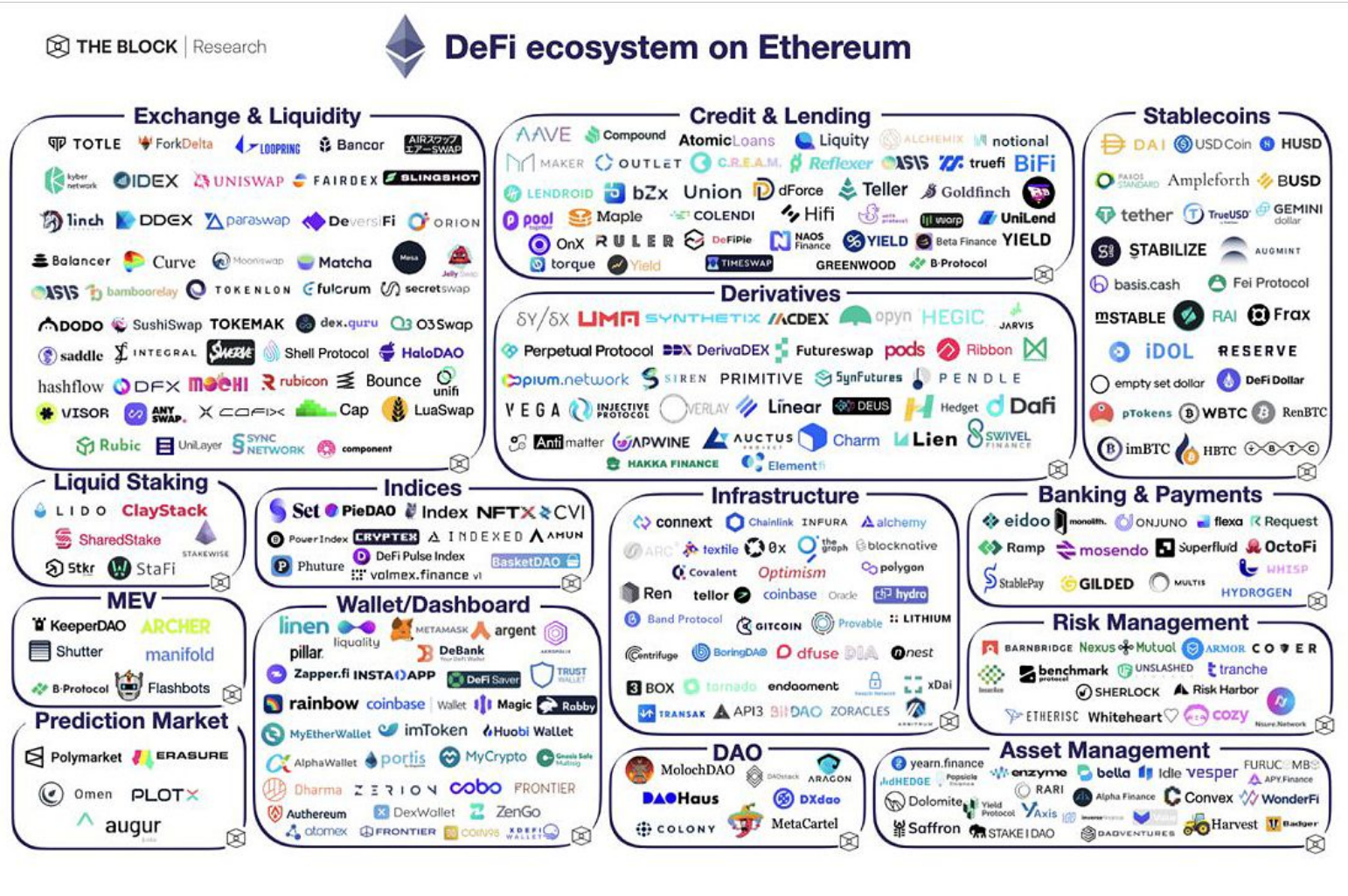
- **Fixed-Rate Lending & Interest Rate Derivative Protocols** – These protocols aim to bring certainty to the previously variable interests rate seen across DeFi;
- **Insurance** – Users contribute assets to a capital pool that is used to underwrite cover that protects policyholders against smart contract risk;
- **Forex** – Allows user to trade and use foreign currency for hedging or speculation;
- **On-Chain Asset Management** – Enables users to allocate capital to the best crypto asset managers in a permissionless and non-custodial fashion;
- **Under-Collateralised Lending** – Blockchain based lending where liquidity is sourced publicly and allocated by trusted pool delegates to crypto native institutions.



Within DeFi there are significant opportunities to generate yield on your crypto assets by providing liquidity and locking your assets in different ways. Our market neutral portfolios solely aim to capture these returns and our long exposure portfolios also implement these strategies in order to optimise returns.

For more information on generating yield within crypto, please see our paper [Yield in Crypto Report](#).

The Ethereum ecosystem has US\$120.68 billion total value locked (TVL) on chain making it the largest DeFi ecosystem in crypto. Below is a visualisation of the DeFi ecosystem on Ethereum.



How We Value Crypto Assets

The way we approach valuing crypto assets changes depending on the type of crypto asset. For example, Layer 1 crypto assets, DeFi asset, NFT/Gaming Infrastructure assets all warrant different valuation models due to their nature and how they fit into their given ecosystems.

Both qualitative and quantitative information is used to assess a given crypto assets valuation. This information can be used to compare crypto assets within the same sector. For example, when you compare Uniswap's (UNI) quantitative information such as Total Value Locked (TVL), daily volume, protocol revenue to other DEX governance tokens we can see that UNI is at a premium valuation. From this information alone, UNI may be seen as overvalued, however, this ignores the qualitative information that can be used to justify the valuation.

Uniswap is a decentralised exchange pioneer that has been on the cutting edge of DeFi innovation since before the term DeFi was even popularised. The Uniswap brand is one of the strongest in the crypto asset industry and their team is widely acknowledged to be of the highest quality.

The ability to assess the qualitative information associated with a given crypto asset is essential in assessing its attractiveness as an investment. This is particularly important for early stage investments where quantitative metrics are limited, the investment team's long term crypto experience and focus on being at the forefront of market innovation makes Apollo well placed to assess these primary investments.



Managing Risk

The investment team at Apollo has extensive experience in managing both traditional risks as well as crypto native risks like smart contract risk. By leveraging this expertise, a manager can position a portfolio to capture asymmetrical upside with an optimal risk/return profile.

Apollo Crypto manages risk through the following:

Constant assessment of invested assets against their sector competitors:

This involves constantly analysing the market to determine whether a portfolio position is optimally placed to take advantage of a specific market it operates in. Despite this assessment being constant, our trading is not. Our investment decisions have medium to long term investment horizons and our positions reflect our view of the highest quality assets within focus areas.

Smart contract risk analysis:

When using an asset in decentralised finance to earn a yield, we undergo thorough analysis on the security of the smart contracts. While [The Block](#) estimates that over US\$1 billion has been stolen by DeFi attackers, our market neutral yield farming fund has not experienced a significant loss of funds through an exploit, despite 100% of the portfolio being allocated to smart contracts on various blockchains.

Portfolio construction:

the weighting of a particular asset within the portfolio is dependent on a number of factors, with the biggest being the overall risk/return profile of the asset. Determining the risk/return profile of a given asset is dependent on the qualitative and quantitative information discussed in the previous section as well as the sector the asset sits in. Portfolio weightings are constantly monitored and altered in order to optimise the overall risk/return profile of the portfolio.

Deep understanding of traditional and macro risks:

The team at Apollo has extensive experience in traditional finance to compliment our crypto expertise. This understanding of the macro risks facing markets more broadly makes Apollo well placed to manage an institutional portfolio of crypto assets.



Apollo's Value Proposition

The team at Apollo Crypto have a unique skill set to manage institutional portfolios of crypto assets. We believe the following sets out why we believe Apollo Crypto are well placed to continue to deliver exceptional returns to investors:

1. Traditional financial services and crypto experience

The team at Apollo Crypto possesses a combination of both traditional markets experience and deep crypto experience. Henrik Andersson, Chief Investment Officer, has nearly two decades experience in traditional financial services, including a decade on Wall Street. Henrik began investing in and following crypto markets in 2013. It is very rare, both in Australia and globally, to find individuals who have such a combination of experience. We believe this experience is crucial as we take our experience in traditional markets and applying it to investing in a new asset class.

2. Deal Flow

Apollo Crypto has established strong networks over its four years of operations, including other crypto founders, crypto funds and general market participants. This provides Apollo access to deals that are inaccessible to many other funds and general investors. Apollo Crypto's deal flow is particularly strong in Australia and Asia.

Apollo Crypto is also a foundational member of [Upside Dao](#), an Australian based incubator of crypto projects. Apollo's involvement in Upside Dao will position us perfectly to lead and co-invest in more promising crypto projects.

3. Operators

The team at Apollo Crypto have experience as operators of crypto projects. Henrik Andersson is the co-founder of two successful projects, dHedge and mStable. Henrik's experience as an operator has led Apollo to further strengthen our networks and brand. Beyond this, the team at Apollo Crypto are focused on assisting portfolio projects to accrue value over the long term, rather than just riding short term momentum swings in the market. We believe this approach will outperform over the longer term.

4. Track Record

Crypto asset markets are new and developing. Now, with a four year track record, the team at Apollo Crypto are relative veterans of the crypto industry. The funds have delivered strong performance to our investors on both an absolute and relative basis. Apollo Crypto continues to outperform both our peers and relevant benchmarks.



The Future

The immaturity of crypto as an asset class makes it an incredibly dynamic investment class. The nature of market segments and the constant influx of capital in ventures often results in considerable market sentiment for certain assets. This sentiment can often lead to inefficiencies in how the market values assets both to the upside and the downside. Social media and its widespread distribution of information across platforms such as Twitter, Discord and Telegram has also contributed to incredible hype within crypto communities, resulting in overestimating projects and high volatility.

As we look to the future at Apollo Crypto, our investment thesis will always remain rational and impartial to the various hype cycles circulating through the market. A sensible outlook and the ability to constantly update and monitor one's worldview are key to investing in the world's fastest moving asset class.

Apollo Crypto has a robust investment thesis supported by solid research and a long-term investment horizon. These components allow Apollo Crypto to take advantage of market inefficiencies, avoid investments driven by short-term hype cycles, and have an unwavering approach when crypto assets inevitably go through periods of volatility.





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