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# <u>Decentralized Autonomous Organizations (DAOs) - The Next Frontier in Cryptocurrencies</u>

At our partnership, Foster Cove Capital, we firmly believe in the philosophy of "skating to where the puck is going to be, not where it has been." As such, we study new technologies, companies, and industry dynamics intensively, long before we actually invest. While we routinely distribute private quarterly letters and other updates to our limited partners, the intent of this piece (our first public facing report) is to highlight an area of cryptocurrencies that we believe will be particularly interesting over the coming decade: DAOs. Simply put, DAOs are hyper-efficient companies that run on public blockchains like Ethereum. In this report, we discuss the current mainstream use cases of public blockchains and explain why DAOs are fast becoming the next major use case. We also discuss how DAOs might facilitate significant improvements in global capital allocation efficiency.

#### Public Blockchain Use Cases to Date

Since the creation of public blockchains, a few notable use cases have arisen – namely as a tool to send & receive payments, disrupt financial primitives through Decentralized Finance (DeFi), and to represent ownership of unique assets through Non-Fungible Tokens (NFTs). While the potential of public blockchains has captivated millions, its use cases are still in early development and as such, adoption has been highly volatile.

The first, and probably most underrated use case of public blockchains, has been to send and receive payments. Think of the last time you were forced to send a bank wire – the process is cumbersome and often takes days to settle. Sending a wire becomes even more burdensome when executing an international transaction. In contrast, payments using blockchains are vastly easier for digital-native users. The process is as simple as searching for a website online and final settlement occurs in less than a minute globally. As evidence of blockchain's efficiency improvements, Ethereum settled over \$11.6 Trillion in transaction value over 2021<sup>1</sup>, which is even more than the \$10.4T that Visa settled.

The other mainstream use cases of public blockchains include DeFi and NFTs. DeFi offers traditional financial services like trading, lending, and interest-bearing accounts with increased transparency and lower costs in many cases, due to eliminating traditional middleman fees by facilitating peer-to-peer transactions. NFTs became wildly popular during 2021 as a tool to represent ownership of digital art. While NFT art became vastly overvalued, it was a meaningful innovation. NFTs can replace title of ownership for any unique asset including a house, a car, or

<sup>&</sup>lt;sup>1</sup> Ethereum transaction volume compared to Visa

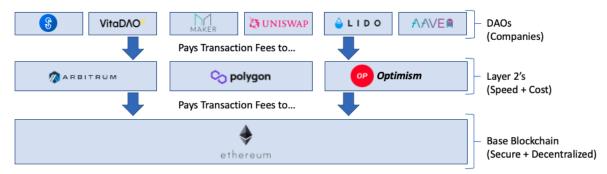
intellectual property. NFT ownership is publicly available and easily verifiable on the blockchain, allowing for simplified and more efficient financial transactions.

Despite the non-trivial use cases outlined above, it still feels as if public blockchain technology has more to offer. Until recently, builders in the space have been limited by two suboptimal choices: build projects on a secure but expensive blockchain or on an insecure but affordable blockchain. Enter highly performant Layer 2 networks built on Ethereum. The first highly-performant Layer 2 network, Arbitrum Nitro, was deployed at the end of August 2022 with additional highly-performant Layer 2 networks scheduled to deploy soon - Optimism Bedrock's release is scheduled for 4Q22 and Polygon zkEVM will launch in early 2023. By bundling transactions together and posting the resulting transaction data to the Ethereum blockchain, Layer 2 networks drastically cut transaction fees and improve transaction speed while retaining Ethereum's security properties. Essentially, highly-performant Layer 2 networks have ended the builder's dilemma of choosing between security vs. cost and speed.

# The Next Frontier...

Now that cryptocurrency builders can launch projects on blockchains that are secure, affordable, and fast – we expect to see the continued rise of Decentralized Autonomous Organizations (DAOs). To be frank, the name "DAO" is misleading because DAOs do not have to be decentralized. DAOs are essentially just companies that operate on the blockchain instead of through traditional channels (i.e., legal incorporation in a certain country, standard bank account, and various written legal agreements between partners and employees).

By operating on a blockchain, DAOs dramatically reduce legal, accounting, and administrative costs associated with traditional businesses, instead paying transaction fees to the DAO's native blockchain.



Most DAOs still run directly on Ethereum. Diagram represents our future outlook

As the cost of executing transactions on blockchains decreases, the DAO model will become even more cost effective. Not surprisingly, DAO growth has been explosive. At the end of 2Q22, DAOs had grown more than 800% year-over-year (as measured by DAOs with at least one vote, the number of proposals in DAOs, and the number of participants in DAOs).<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> DAO Growth Data from Snapshot Labs

While not a requirement, many DAOs will launch their own tokens, granting holders a range of rights based on the code used to deploy the DAO onto a blockchain. Every DAO has its own unique structure but typically, ownership of a DAO's token will grant its holder governance rights over the DAO's assets. In many cases, the token functions similarly to equity in a traditional company in that token ownership represents partial control over the DAO and tokens can be sold for cash or issued in exchange for contributing labor to the DAO (similar to issuing equity to employees at a company).

DAOs offer meaningful efficiency improvements for traditional businesses to save money on operational and backend costs, allowing those businesses to invest more into their core product or service. All else being equal, it will be increasingly challenging for a traditional business to compete with a DAO that has more capital to reinvest into its product, service, or growth.

The core innovation of a DAO is the dramatically reduced cost of pooling global labor and capital that can then be directed in a productive capacity towards a goal. Companies have traditionally filled this role but at a much higher cost, particularly when incorporated globally. Accordingly, we believe that the next generation of the world's most valuable companies will be DAOs.

### Internet Disrupting Traditional Media as a Model for DAO Disruption

We believe DAOs will improve capital allocation efficiency in much the same way and as dramatically as the internet disrupted information distribution. Before the internet, a select few centralized entities dominated the media and content creation business through print, on television, and in Hollywood.

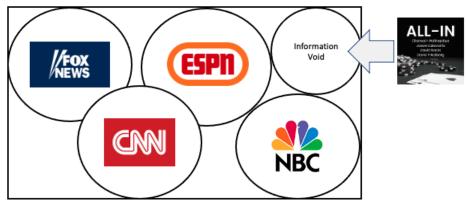
Centralized media empires competed to fill certain "information voids," which we define as topics or viewpoints that the public wanted but were not getting elsewhere. Focusing on television news for example, ESPN launched in 1979, catering to sports fans, CNBC launched in 1989, catering to a business-focused audience, and Fox News launched in 1996, catering to a conservative audience. While centralized media was able to roughly fill large information voids, it left much to be desired. Due to the high barriers to entry of starting your own newspaper or cable television channel (i.e., the tens if not hundreds of millions of dollars required to build the necessary infrastructure), several information voids were ignored.

Then came the internet and the rise of blogs and podcasts that have allowed anybody with a computer and internet access to become their own journalist, media pundit, or even movie star. Tools like YouTube, Spotify, and Substack have dramatically decreased the barriers to entry of becoming a content creator.<sup>3</sup> While content creators may address smaller niches of the market, they are able to own their own brand, eliminate the overhead costs associated with working for

<sup>&</sup>lt;sup>3</sup> For the purpose of this piece, we ignore streaming services like Netflix whose content creation is highly centralized which is proving to be a less defensible business model than previously thought.

a legacy media company, and take home more of their generated revenue, assuming they produce high-quality content.

The combination of lower barriers to entry and higher potential rewards has led to an explosion of independent content creators, competing to fill various information voids. Besides content creators, nobody has benefited more than consumers who now have a plethora of new media options. For example, we no longer watch traditional news outlets (CNN, Fox, NBC, etc.). Instead, we regularly watch the All-In podcast on YouTube, where four "besties" (all successful entrepreneurs) cover current issues in-depth with viewpoints ranging the entire political spectrum; a product that no television channel offers.



Traditional Media has ignored niches of the Information Market

Our experience with traditional media is not unique, as newspaper<sup>4</sup> and cable subscriptions<sup>5</sup> have been on a steep decline over the past decade and primetime viewership for the top cable news channels is quite unremarkable: Fox News (2.12 million viewers), MSNBC (1.3 million viewers), CNN (731,000 viewers)<sup>6</sup>. In contrast, podcasts like The Joe Rogan Experience average 11 million listeners per episode, the All-In podcast boasts 237,000 subscribers on YouTube, and the Nelk Boys (once known as internet pranksters) hosted Elon Musk on their Full Send podcast in an episode viewed by over 12 million people. From our analysis of traditional media's disruption, the trend seems clear – decreasing barriers to entry and increasing potential rewards for market participants grows the total pie, allowing more value to be created.

## **DAOs Fill Capital Allocation Voids**

Several of the inefficiencies found in traditional media can also be observed with large scale capital allocators; namely, banks, endowments, index funds, and hedge funds. The costs of launching your own global corporation start around \$100,000 when accounting for incorporation costs, drafting of various legal documents, and administrative expenses. Those costs do not even include the hiring and incentivization of key employees. Accordingly, it is very likely that

<sup>&</sup>lt;sup>4</sup> Newspaper Subscriptions on the Decline

<sup>&</sup>lt;sup>5</sup> Cable Subscriptions on the Decline

<sup>&</sup>lt;sup>6</sup> Leading Cable News Primetime Viewership

countless businesses have not been launched due to exceedingly high barriers to entry. DAOs incentivize building by drastically lowering the costs of forming and maintaining a global corporation. As a result, we believe that DAOs will facilitate more efficient capital allocation to fill "capital allocation voids" as internet-native media sources have done with information voids. We define capital allocation voids as areas within the economy that have been severely underinvested in despite high consumer demand for better products and/or services in that area.

HairDAO<sup>7</sup>, a project which Andrew Verbinnen (FCC managing member) co-founded, is the perfect example of a DAO filling a very large capital allocation void. For context, hair loss (medically referred to as androgenic alopecia) is classified as a cosmetic condition, which means that it is not covered by insurance. Because big pharma cannot charge a surplus to patients for the solution, they invest almost nothing into hair loss research & development. Similarly, because the government has decided that hair loss should not be classified as a disease, they have barely funded any early-stage hair loss R&D.

HairDAO's goal is to solve hair loss by disrupting traditional funding for early-stage R&D and Intellectual Property generation, an area of the economy that is traditionally funded by the NIH (a government organization). Almost by design, government organizations are incredibly capital inefficient and ripe for disruption. As evidence, look no further than SpaceX (disrupting space travel; last valued at \$125bn) and Anduril (disrupting national defense; last valued at \$8.2bn).

Despite the government not funding early-stage hair loss R&D, there appears to be massive patient demand for better solutions given that over 60% of the population suffers from hair loss during their lives. There are already several large online communities dedicated to searching for better hair loss solutions. When you contrast the patient demand for better hair loss solutions with the woeful underinvestment into better solutions, it would appear that HairDAO may fill a very highly desired capital allocation void.



Government organizations have ignored fields of biological research

<sup>&</sup>lt;sup>7</sup> HairDAO Website

While HairDAO has targeted the problem of hair loss, there are countless other capital allocation voids throughout the global economy. DAOs can be used to fill those voids, ranging in scale from replacing government programs to solving smaller issues like refurbishing a local library. Similar to legacy media, a select few centralized capital allocators control an outsized portion of the world's capital flows, largely due to their success over the past few decades. However, that centralization has reduced competition for quite some time which has resulted in decreasing capital allocation efficiency and now there are likely many capital allocation voids that need to get filled. We believe DAOs are the right tool for the job.

## **Implications of DAOs for Long-Term Investors**

While the native tokens of nearly every DAO are still highly speculative, we believe that the inherent operational efficiencies offered by DAOs will gradually force many traditional businesses to migrate to the DAO structure. Eventually, tokens on the blockchain will likely replace the concept of traditional stock shares. Entrepreneurs will benefit because they will be able to raise funds more easily regardless of where in the world they are located. We will be able to buy a New Delhi-based DAO's tokens just as easily as we could buy a New York-based DAO's tokens. Investors will benefit from DAOs because they will have a wider range of investment opportunities, with increased transparency – namely, regular retail investors will have better access to high-quality, early-stage investment opportunities.

Unfortunately, the lack of regulatory clarity around DAO tokens remains the biggest impediment to DAOs reaching their full potential. Because many DAO founders are worried about violating securities laws, they have either overly restricted the rights afforded to token holders or intentionally obfuscated the actual function of their native token. Nonetheless, we believe that the DAO structure is so much more efficient than the traditional incorporation structure that regulators will eventually need to accommodate DAOs if they want to capture the massive tax revenue that DAOs will generate.

As long-term investors, we like to bet on meaningful efficiency improvements. Innovation and progress tend to be messy and the same will likely be true for DAOs. However, we expect that the benefits of DAOs will far outweigh any downside. As DAOs continue to mature, we will continue to watch closely so that when the time is right, we know which DAOs to bet on...