CAPTUR RESEARCH

ALPHA BOOK

SEPTEMBER 2022

ALL ABOUT THE MERGE

Recent events and the upcoming Merge pose three questions. Will the Merge narrative hold up in a bearish macro environment; why is Bitcoin underperforming; and, considering the above, how should you play the Merge? These questions are interrelated, and we discuss them in two of this month's articles.

This month's deep dive is about an OG crypto project – ENS, or Ethereum Name Service, which started in 2017 and launched a token last year. Our analyst TokenTurtle discusses his investment case. ENS bulls will be happy to hear he has a target 220% above the current price.

In our previous issue, we pledged to keep holding ourselves publicly accountable for our calls – even if they were bad and even if they weren't financial advice. Thankfully, August didn't treat us badly. Our market analyst correctly – and courageously – called the bottom in June and the precise top in August. For more detail, read page 4: *How Did We Do Last Month?* We are glad Alpha Book has been a wild success for those who followed our market analyses during our first three months.

DISCLAIMER

ALL ABOUT THE MERGE

Recent events and the upcoming Merge pose three questions. Will the Merge narrative hold up in a bearish macro environment; why is Bitcoin underperforming; and, considering the above, how should you play the Merge? These questions are interrelated, and we discuss them in two of this month's articles.

This month's deep dive is about an OG crypto project – ENS, or Ethereum Name Service, which started in 2017 and launched a token last year. Our analyst TokenTurtle discusses his investment case. ENS bulls will be happy to hear his target floats 220% above the current price.

In our previous issue, we pledged to keep holding ourselves publicly accountable for our calls – even if they were bad and even if they are never financial advice. Thankfully, August didn't treat us badly. Our market analyst correctly – and courageously – called the bottom in June and the precise top in August. For more detail, read our Performance Check on page 4. One thing is sure, we are glad Alpha Book has been a wild success for those who followed our market analyses during the first three months.

CAPTUR
RESEARCH

KEY INSIGHTS

- Bitcoin has been comparatively weak this past month – and will likely continue being weak. Unlike ETH, it lacks both a narrative and a catalyst. Institutions own more BTC than any other crypto, so going risk-off means higher sell pressure for BTC. Moreover, funds have been using BTC to hedge against equities falling.

- Obvious but good to remember: under this regime, no narrative, no matter how strong, can be stronger than macro. The Ethereum Merge may be the most powerful crypto narrative in years; it will lose out to bearish expectations relating to the war on inflation. ETH moves crypto; equities move ETH.

- Crypto bulls still need to see signs of the Fed considering a pivot. The CPI data coming in on September 13 could be of major importance, as it informs the FOMC statement that will be released on the 21st. The same goes for September 2nd, when the new job numbers come out.

- We believe the current consensus on a 75bps rate hike announcement on September 21st is warranted, but the market's 90% chance at 75bps being priced-in seems exaggerated. Either worse than expected job data or better than expected CPI numbers can trigger a dovish surprise.

- Depending on the job data and the CPI print, market participants should prepare for potential derisking during the days before the FOMC meeting. This is all the more significant in light of any bullish momentum around the Merge, which is scheduled to happen only days before.

- The Merge by no means has to become a sell-the-news event, but we still lean towards selling around the expected date, mainly due to the FOMC meeting taking place only days later. Again, this depends on the job numbers and CPI print going into the meeting.

- Our report on Ethereum Name Service suggests an attractive risk-reward profile for the ENS token. The TAM is immense and costs are low. Although there is currently no mechanism for revenues to flow to ENS holders, there is reason to believe this may change in the future. In the short term, the imminent launch of subdomains provides a catalyst that should drive a positive new narrative around the project.

PERFORMANCE CHECK: HOW DID WE DO?

Accountability isn't the most poetic of words, but we think crypto needs to hear it more often. Each month, we look back at the calls from our previous issue. We are, to our knowledge, the only research company to do so, hoping more people in the space will follow.

- We were correct to assume US inflation numbers released in August would not be bearish.
- We indeed had nothing to fear from the macro front – right up until a few days ago, when fear came back with a vengeance.
- We were also correct to assume much bigger inflation problems in Europe, due to its dependency on Russian gas.
- BTC appreciated 8% but failed to break through the $25,000 level as the market focused its attention on projects further out on the risk curve. Consequently, BTC did not reach our $29,000 target.
- August did turn out to be bullish, as per our call. ETH went up 22% before topping out at the $2000 level.
- We wrote $2000 would be a great level to take profit on ETH, as we were betting price would go down from there. It did. (This means we called both the bottom *and* the top of the summer rally.)
- ETH did not "only" give a shallow pullback to those who were looking to long. Price dropped 30% after topping out at $2000. We forecasted the top at this price level, but the pullback was deeper than expected.
- For now, we seem to have been correct to say that August would offer only respite from more macro violence, and that there was no reason to change our bearish mindset in the medium term.

COIN	PRICE	CHANGE 24H	VOL. 24H	OPEN INTEREST	OI CHANGE 24H	OI SHARE ▼	OI / VOL24H
Bitcoin BTC	$19,831.57	-0.85%	$21.1b	$10.0b	+0.09%	43.51%	0.48
Ethereum ETH	$1,451.09	-2.47%	$24.5b	$6.7b	+0.01%	28.93%	0.27
Solana SOL	$30.63	-3.23%	$1.2b	$390.7m	-1.26%	1.69%	0.32
Ethereum Classic ETC	$31.13	-4.97%	$1.8b	$379.1m	-5.21%	1.64%	0.21
Ripple XRP	$0.3205	-4.02%	$630.9m	$318.0m	-0.07%	1.38%	0.50
Tether USDT	$1.00	-0.01%	$38.7m	$304.9m	-0.37%	1.32%	7.87
Binance Coin BNB	$274.65	-1.51%	$654.8m	$272.4m	+2.72%	1.18%	0.42
Cardano ADA	$0.4345	-2.74%	$621.4m	$269.2m	-0.69%	1.17%	0.43
Polkadot DOT	$6.95	-1.65%	$343.1m	$254.8m	-0.06%	1.10%	0.74
Polygon MATIC	$0.7821	-3.11%	$896.2m	$194.7m	-10.28%	0.84%	0.22
Litecoin LTC	$54.16	+1.57%	$629.5m	$187.0m	+4.06%	0.81%	0.30
EOS EOS	$1.44	-3.09%	$685.1m	$186.7m	-4.90%	0.81%	0.27
Bitcoin Cash BCH	$115.27	-1.17%	$258.9m	$162.9m	-0.74%	0.71%	0.63
Avalanche AVAX	$18.06	-10.08%	$1.1b	$157.4m	+6.37%	0.68%	0.15
Tron TRX	$0.0618	-1.60%	$111.1m	$145.1m	-0.61%	0.63%	1.31
Dogecoin DOGE	$0.0617	-3.17%	$379.9m	$121.6m	-3.46%	0.53%	0.32
STEPN GMT	$0.6455	-6.32%	$350.6m	$105.4m	-2.65%	0.46%	0.30
Chainlink LINK	$6.35	-2.22%	$257.2m	$100.4m	+1.15%	0.43%	0.39
Chiliz CHZ	$0.2072	-8.80%	$888.0m	$98.3m	-17.92%	0.43%	0.11
Filecoin FIL	$5.67	-1.90%	$283.5m	$97.6m	-1.75%	0.42%	0.34
Cosmos ATOM	$10.43	-5.79%	$386.3m	$88.5m	-5.00%	0.38%	0.23
Tellor TRB	$36.73	-8.12%	$263.6m	$82.0m	-16.62%	0.36%	0.31
NEAR Protocol NEAR	$3.83	-1.20%	$263.2m	$80.2m	+2.62%	0.35%	0.30
The Sandbox SAND	$0.9421	-2.39%	$215.8m	$79.0m	-1.14%	0.34%	0.37
Axie Infinity AXS	$13.17	-3.92%	$132.4m	$78.1m	-3.71%	0.34%	0.59
Optimism OP	$1.12	+6.53%	$750.2m	$74.5m	+13.46%	0.32%	0.10
ApeCoin APE	$4.77	+0.55%	$370.8m	$68.9m	+2.55%	0.30%	0.19
FTX Token FTT	$25.81	-0.21%	$26.9m	$65.6m	+0.71%	0.28%	2.44

Figure 1: Open interest in BTC is still higher than in ETH, despite the volumes.

WHY BTC KEEPS UNDERPERFORMING

There are many reasons why Bitcoin has been comparatively weak this past month – and may continue to be weak.

The first reason is a negative one. As we wrote back in June, Bitcoin lacks a narrative both in the short and long term. The "institutions are coming" meme is behind us – institutions are here, and they are part of the problem, as we'll explain below. Though it may still be too early to say with confidence that one of Bitcoin's strongest long-term narrative – a great hedge against inflation – has failed, we can certainly say it has failed *so far*. And the longer it keeps failing, the higher the chance it keeps failing.

Now for the positive reasons. The most obvious one is the existence of an exceedingly strong narrative with another coin. Investors can only spend their money once, and betting on Ethereum appreciating due to the Merge makes more sense than betting on Bitcoin waking up from its deathlike slumber.

Furthermore, the market is in the process of pricing in the release of the Mt Gox coins. We don't know when these coins will hit the market, nor do we know how many of the forced holders will sell. But the coins will drop – probably within six to twelve months. (Too early to say, but this could become a great buy the news event. You will definitely read more about this in future issues.)

Then there is the fact that institutions with crypto exposure typically own much more Bitcoin than any other crypto. This means that in a risk-off environment, potential sell pressure on Bitcoin can get much higher. And even though ETH volume exceeded that of BTC in the recent month, open interest in BTC is still significantly higher – 43.5% of the total crypto OI (see Fig. 1). That makes it suitable for funds that want to use it for its high beta on equities. ◆ Sander Kok

WINNING THE MERGE

MONTHLY ESSAY – READING TIME: 8 MINUTES

By Sander Kok

Repeat after me: There is but one god, his name is Macro, and Jerome Powell is his messenger.

This won't change until the coming of the Decoupling. For 'tis written.

Oh, sure, the upcoming Ethereum Merge may come as an angel to desperate investors, but angels can fall, and so can your net worth.

Lest we forget.

We'll return to the Merge later in this article. We will also provide you with some game plans and a nice visual to go with it. Hold on. Macro first. If the last week of August has proven one thing, it's that no matter how strong an idiosyncratic narrative, the market shall have no god but Macro.

In last month's market analysis, we argued that August would likely be a quiet month, with not much to fear from Powell. This turned out to be true – right up until the end, when fear struck after all. On the 26th, Powell gave a dull and neutral speech, but the market took it differently and chose violence. This violence is why some commentators now say the speech was hawkish – but in truth, Powell said nothing new or shocking. It was like one of those lulls in a relationship that end in disaster after an innocent remark gets taken for a hateful statement. But the market is always right, much like your wife, so here we are.

Figure 1: Nasdaq topped on the weekly and is nearing technical support.

Equities look terrible as they seem to have topped. The index with the highest correlation to crypto is the Nasdaq, so it makes sense to whip out that chart first. On the weekly, support is only 3% away from the current price (Fig. 2). Looking at the monthly chart (Fig. 3), there is some technical support at the June lows, but further down it's all air until much, much lower.

These do-or-die levels are usually good buys, as we've seen two months ago, but we're hesitant this time and may wait until the CPI numbers come in on the 13th. We'd be interested in buying crypto at those levels when an

attractive low time-frame opportunity comes up with the potential of developing into a high time-frame trade. Low time-frame means tighter stop-loss, so smaller drawdown potential, in exchange for a smaller chance at success. I'll gladly take it if the opportunity arises and see if it can develop into a high time-frame trade. A similar trade worked well for us at the June lows (see Alpha Book Issue 1).

These past weeks we've seen a flight back into stablecoins. In our August issue, we charted the two largest stablecoins, USDT and USDC, which comprise the bulk of the total supply, against the entire crypto market cap. The pair moves in an upward channel as more and more stablecoins are minted over the years (Fig. 4). So many, in fact, that in recent years the stablecoin supply grew even faster than the already fast-growing total crypto cap. The tops and bottoms are highly correlated with the crypto market's tops and bottoms. The middle zone of the channel seems somewhat significant as well; and indeed, the stablecoin supply compared to the total crypto market cap bounced right there during the past two weeks. This is mainly due to the fall of crypto prices in that same period, of course, but the chart still shows the amount

Figure 2: A large gap under the first technical support on Nasdaq's monthly.
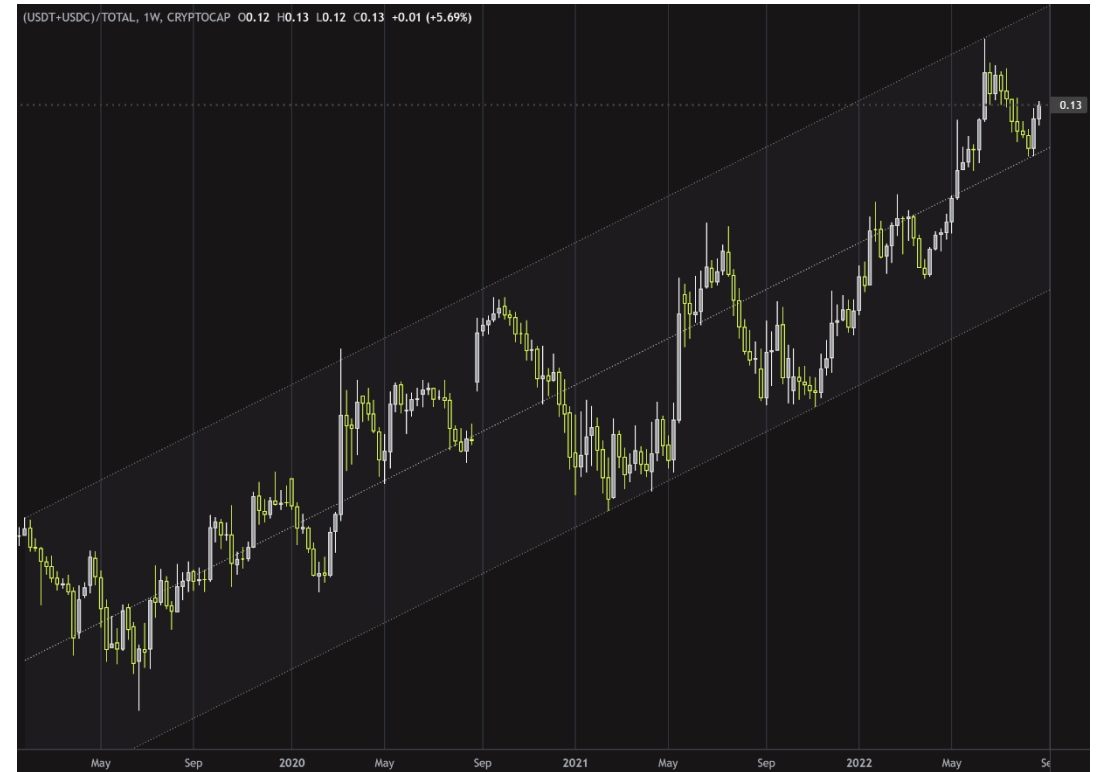
Figure 3: The recent flight back into stablecoins.

of sidelined stablecoins topped, then got allocated into crypto (presumably mostly into ETH), and recently found a bottom as sentiment went risk-off again. Worth keeping an eye on.

Bitcoin put in a disgraceful performance this August and now things look bleak for September. (Be sure to read page 5: Why Bitcoin Keeps Underperforming.) Having failed to break through the $25,000 resistance, it's now hovering slightly above the $20,000 support (Fig. 4). If that key

Figure 4: Bitcoin put in a disgraceful performance in August and looks set to fall below the $20,000 support.

psychological level breaks – and for now it looks like it might – chances are we go lower. Buying below 20k the first time made sense – and we did – but revisiting this level under the current circumstances, we expect much less buy pressure. At any rate, for Bitcoin to fall below 20k, we need equities to perform poorly as well… and you can't say they aren't doing their best for now, but that may change. If they stop performing poorly this September, this will likely be due to either good news concerning inflation or bad news concerning unemployment. (Bad news is good news for risk assets, as it forces the Fed to go easy with the interest rates.) This much is obvious: once we see early signs of dovishness, risk assets will fly, and crypto will be among the highest flyers. The problem is, we don't see any signs now. Keep your eyes on September 13, when the new CPI print comes in. Also significant may be September 2, when the latest job numbers will be released. The results of either of these two releases are more likely than not to alter expectations around the interest rate hike that will be announced on the 21st. The market consensus is we'll see a 75bps hike, which opens up the possibility of a dovish surprise once either of the two releases turns out to be not that bad. The 13th is the more significant of the two for our Merge game plans – on which you can read more below.

TACTICAL PLANS

So, if you were going to trade the Merge – how would you do it?

First of all, there is no single Merge trade. There are many. Aside from other Merge-dependent projects such as Lido and Ethereum Classic, we expect lots of opportunities ahead for trading just ETH.

With such a straightforward, event-driven narrative, your biggest enemy may be overtrading, but on the other hand, we have a complex and volatile situation coming up, and sitting still may not be the best course of action. Another reason to prepare for the manifold buy and sell opportunities is our expectation that we will see *a lot* of noise around the Merge. It's wise to ensure you know when and where to look for signal in advance.

September will see two major risk events within the space of one week (see Calendar on page 24). Each of these risk events will have a significant impact on the market, and even more from the fact that they'll occur so close together in time. There is also significance in the fact they follow each other in this specific order.

What's more, approximately two days before the Merge, the new CPI numbers drop – on the 13th. These numbers will inform the coming FOMC statement and likely cause market-wide volatility.

The Merge, expected around September 15, will happen approximately 6 days before the FOMC meeting (on the 21st). As August was a holiday month for the torn and tired commissioners, the September meeting will be the first in a while. This order of events makes our game plan easier.

Equities, and therefore crypto, look terrible, so we may not get there, but if during the first two weeks of September we get some green on the charts, we are expecting fierce, market-wide derisking in the days before the FOMC meeting – of course depending on whether the CPI numbers of the 13th were any good. If we were to see a lot of green, it only makes sense to rake in profit before this major risk event. As always, risk management is critical. "Those who do not manage their risk will have the market manage it for them," wrote Su Zhu, months before blowing up his fund. Indeed, you don't want to hold a sizable ETH position if the FOMC turns out worse than expected, or if the market treats it as bad news.

As to whether or not the Merge will become a sell-the-news event – that depends on the meandering path that leads us to the 15th. From where we are walking now, it definitely doesn't have to become one, especially if the broader markets stabilize with ETH having become oversold.

Image credit: blog.ethereum.org

Still, we conditionally believe it's wiser to sell the Merge. Here is why. We expect – depending on the CPI numbers – a risk asset sell-off before the FOMC. If we have had a significant ETH pullback and the FOMC news turns out not worse than expected – then we are ready to buy our ETH back at the first sign of regained strength. This means having to react fast to the FOMC news in order to capitalize quickly if the messenger fails to deliver worse news than expected.

There are, in short, three factors that will dictate the path going forward:

1. Price action in the two weeks before the Merge (part of which is, of course, an expression of sentiment regarding "sell-the-news" and "FOMC"). Is price significantly lower on the Merge day than it was before the pullback started (if there was one)?

2. Was the Merge successful?

3. Is the FOMC news above, below, or similar to expectation?

So, should you buy ETH on a pullback? Here are the probabilities we assign to each of the above:

1. 0.5 / 0.5

2. 0.9 / 0.1 – We may be too cautious here. Ethereum's developers wouldn't proceed with the Merge if they'd expect a 10% chance at failure. That said, there is always residual risk and even experts don't know what they don't know.

3. 0.4 / 0.4 / 0.2 – This is tentative. A clearer view will emerge in the coming weeks.

With these inputs, the probability that you should buy ETH on a potential pullback before the Merge date and keep it for a while longer is 36% (0.9 * 0.4 = 0.36). Though it is still better than buying ETH without a pullback, it is not much to write home about if you can't find an entry with decent R/R.

We started by saying there isn't one Merge trade; consequently, there should be more than one game plan. Here are some. You can also find these visualized on the next page.

GAME PLAN FOR THE 10 DAYS BEFORE THE MERGE (5-15/16th)

Sell parts of the position (we bought sub $1000, see Alpha Book 1) whenever we get a large upside deviation (10-15%) from the 10 DMA (or any similarly outrageous deviation outside the Bollinger Bands, if you prefer those).

GAME PLAN FOR RIGHT AFTER THE MERGE (15/16th)

This one is a little more complex. Let's put it in a table for clarity.

Rally continued	Merge successful	Sell
Significant pullback	Merge successful	Buy
Rally continued	Merge fails	Sell
Significant pullback	Merge fails	Sell

GAME PLAN FOR BETWEEN THE MERGE AND FOMC (15/16-21th)

We have established that it's probably best to sell the Merge in three scenarios and best to buy in one. If the latter scenario is at play – so if there was a significant pullback *and* the Merge was successful – we think it's best to buy, but only under strict conditions. First, the pullback would have to be very significant indeed. It would have to lead to ETH being highly oversold. A 10 or 15% pullback may not be enough. As we wrote above, we expect the markets to go fiercely risk-off in the days before the FOMC – again, depending on the CPI numbers. It would not make sense to buy in the knowledge you'll probably want to sell just days later. Remember there is less than one week between the two risk events.

The gist: sell the news, but be open to buying the pullback. The Merge is a fundamentally bullish event, and its effects will be spread out over the years. It is in no way similar to earlier market topping sell-the-news events, such as

the CME listing or Coinbase listings. There are multiple obvious and less obvious reasons for this, the most obvious one being the unfortunate fact that this time, ETH is far, far from its top. ◆ Sander Kok

ETH Buy and Sell Opportunities Around the Merge

The Merge
15-9-2022

FOMC
21-9-2022

Two weeks before the Merge
Whenever price deviates extremely to the upside during this period -- SELL (parts).
If we get a significant pullback during the first ten days of these weeks, then BUY.

Less than one week between Merge and FOMC

If we get a deep pullback AND the Merge is successful: BUY, unless between 19-21 September. (See "3 days to FOMC".)
In all other circumstances: SELL.

3 days to FOMC
Expect added sell pressure from derisking starting September 18; SELL.

After FOMC
Potential BUY opportunity on the day of the FOMC if ETH got oversold while the Merge was successful AND FOMC turns out better than expected.

9/3/2022   9/5/2022   9/7/2022   9/9/2022   9/11/2022   9/13/2022   9/15/2022   9/17/2022   9/19/2022   9/21/2022   9/23/202

DEEP DIVE | ETHEREUM NAME SERVICE

READING TIME: 21 MINUTES | $ENS: Target price $42, current upside: 220%

By TokenTurtle

Investment case

The Ethereum Naming Service ($ENS), akin to the internet's Domain Name Service for websites, is a way to gain exposure to the trend of Ethereum becoming an integral part of Web 3.0. The addressable market is potentially huge, with our analysis suggesting a $4.6bn annual revenue opportunity for the ENS DAO. While there is no mechanism for cash flows to flow back to $ENS holders at the present time, the ability to have a say on how a potentially multi-billion dollar treasury is distributed has value while there is a probability that the ENS DAO could vote to distribute some cash flows in the

future. Within this report, we explain in detail the assumptions behind a model that estimates what these cash flows could ultimately look like and derive a target token price, the outcome of which suggests an attractive risk-reward profile for the $ENS token. In the short term, the imminent launch of subdomains provides a catalyst that should drive a positive new narrative around the $ENS project, thus diverting attention to this ecosystem, and with it upwards pressure on the token price.

What does ENS do?

The Ethereum Name Service (ENS) is an open and distributed naming system based on the Ethereum blockchain, akin to the internet's Domain Name Service system for websites. The ENS system maps memorable, simpler names like john.eth to cryptocurrency addresses. For example, let's say I want to send some ETH to another wallet. Rather than having to copy and paste in the full cryptocurrency address of the recipient (0x76C8Cd982422Ffb0a21C382F5a092325D7bEdC7f), I can instead send it to their ENS name, such as john.eth.

In the analogy with internet domain names, if we want to visit a particular website, rather than typing the IP address, we would just have to type in the human readable website name that corresponds to its particular IP address.

Uses of the ENS system

1) **An ENS name can act as a gateway to your digital identity**
   As an individual, an ENS name acts as a gateway to your digital identity. Your ENS name gives you a tool to showcase your digital brand. For example, the types of NFTs you buy and display is a way for an individual to express themselves. In addition, the ease of not

having to paste in a whole crypto address when looking to transfer digital value over the internet is an additional benefit.

This seems just the start, as we are still early in the digitization era. Aside from a crypto address, there is currently the option to attach your Twitter handle, digital avatar, Discord profile, and URL, amongst others, to your ENS name. There will be countless other ways that innovative entrepreneurs will create for the world to interact in this new digital world, which we can't even conceive of at present, as was the case with the internet.

2) **Digital brand for businesses**
   At the moment, big brands have been using .eth purchases as an inexpensive way to boost their brand and appeal to certain segments of the market. For example, Budweiser bought beer.eth for 30 ETH, which is a small sum given the publicity this generated across traditional media outlets. However, beyond that, there is currently little utility for companies. This may change if crypto continues to grow and Ethereum maintains its dominant position amongst layer ones. Once additional functionality and use cases are created, businesses of all sizes could potentially need to have an .eth address in a similar vein to websites, acting as a gateway to their brand.

Adoption is early but growing rapidly

As can be seen in the figure below, the number of ENS domain registrations is increasing rapidly, primarily driven by speculation, and at the time of writing 2.1 million domain names have been registered.
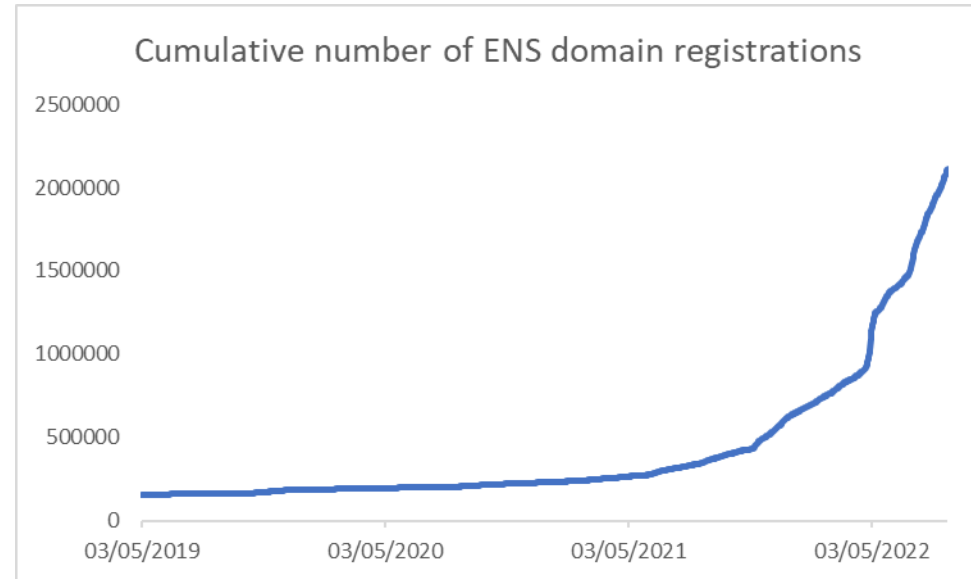
Figure 1: Exponential rate of growth in ENS domain registrations. Source: Dune.

Imminent launch of subdomains as NFTs

While ENS domain name registrations have been growing at a healthy rate over the past three years, it is the imminent launch of subdomains as NFTs that is exciting and could potentially act as a short-term catalyst for attention to be diverted to the ENS ecosystem.

What are subdomains?

Before understanding what an ENS subdomain is, let's lay out the various parts of the ENS domain. At present, there are three parts to an ENS domain, including the subdomain. If we take an example: john.smith.eth:

- .eth is the Top-Level Domain (TLD) - this is owned by the smart contract.
- smith.eth is the Second-level domain (2LD) - this is what a purchaser owns.
- john.smith.eth is the Third-level domain, aka Subdomain (3DL) – this is another layer of the 2LD that the purchaser of the 2LD can create and owns initially.

A 2LD owner can create as many subdomains as they would like, and at present, it only costs gas.

.eth ⟶ Top Level Domain - TLD

smith.eth ⟶ Second Level Domain – 2LD

john.smith.eth
emma.smith.eth
james.smith.eth

Third Level Domain – 3LD
Or
Subdomains
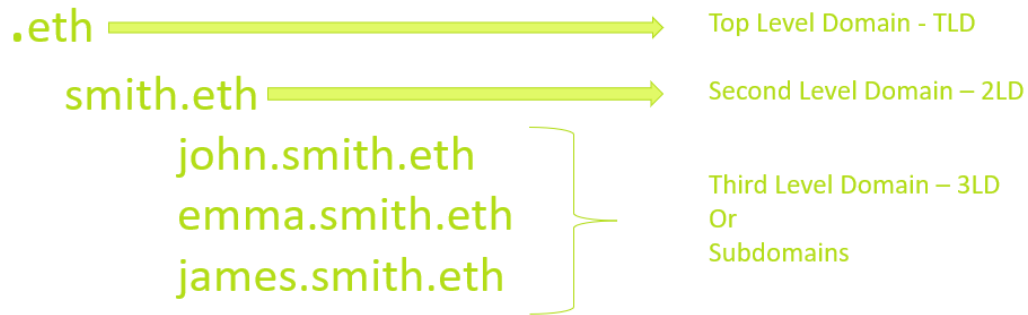
Figure 2: Schematic of ENS domain names. Source: Captur Research.

Reasons why subdomains have failed to take off…

The ability to create subdomains has actually been around for a while. So why haven't they taken off? We outline two main reasons why.

1) While 2LDs (e.g. smith.eth) are NFTs adhering to the ERC721 standard, subdomains do not currently exist as NFTs, and so they can't be bought and sold on the secondary market.

2) There does not exist a mechanism to prevent the 2LD owner from transferring ownership of the subdomain.

…But things are changing

The ENS DAO is about to launch a NameWrapper smart contract.

The NameWrapper contract wraps both 2LD and subdomain names under the ERC1155 token standard. Once NameWrapper is launched:

- All ENS names, 2LD and subdomains, will be under the same base level contract such that they can all be traded as NFTs, instead of only the 2LD ones.
- Parent 2LD domain owners can permanently remove permission from themselves such that they cannot transfer ownership of the subdomain, thus giving assurance to subdomain owners that the parent 2LD owner won't rug them.

It's unclear at the moment whether the NameWrapper contract will enable anyone to create a subdomain off of the 2LD domain name and then set their own parameters of sale, such as pricing models and how much to charge. However, even if the NameWrapper contract doesn't allow this itself, there are likely to be projects that see this as an opportunity to create this additional functionality themselves.

So what?

The ability to create and trade subdomains as NFTs potentially opens up a whole new avenue for speculation. Of course, speculation has to be based on some form of narrative. What could this narrative be?

One use case we foresee is the idea of belonging to a community that affords special privileges. For example, a personal brand could use it to create their

fan club by issuing subdomains. So let's say Katie Perry wants to create an exclusive community for her biggest fans. Assuming she owns loveskatieperry.eth (still available to register btw!), she can issue 5,000 subdomains to her select fans in the form of john.loveskatieperry.eth and alice.loveskatieperry.eth, or 123.loveskatieperry.eth to make it more fungible. Those people possessing these subdomains in their wallet can be afforded special privileges such as signed merchandise or VIP access to a concert. These subdomains can be traded on a marketplace, and thus, as the personal brand grows, the value of the subdomain NFTs also increases. It's similar to the social token platforms like Rally ($RLY), but this seems a more elegant solution.

There will be countless other use cases that smart entrepreneurs will experiment with. Some will fail, but if even a few succeed, there is the potential for ENS domain names to really take off.

Unknown exactly if or how ENS would benefit from subdomains directly from a financial perspective…

It's unknown at the moment if the ENS DAO would receive any fees from the issuance and trading of subdomains. This information is likely to be released once there is more detail on the NameWrapper contract.

…but provides a mechanism to boost marketing of ENS domain names

However, even if no fees accrue to the ENS DAO treasury, the transition of subdomains to NFTs creates additional demand for .eth names as there is a greater utility for these. If we take the Katie Perry example, loveskatieperry.eth suddenly potentially becomes more useful if it can be used to issue subdomains. In addition, marketing businesses will likely be set up to push these subdomains as there is now the potential for a recurring revenue stream from owning 2LDs (.eth). This helps bring more people into the ENS ecosystem and ultimately acts as a marketing mechanism for little cost.

And is potentially a strong narrative when the launch date is announced

In the short term, the announcement of the release of subdomains should help drive a strong narrative, which is vital in this market where capital is in short supply and attention is hard to attract.

Huge addressable market

As discussed above, we see compelling use cases of ENS domain names for two segments of the market – individuals and companies. This suggests a huge potential addressable market should Ethereum gain broad adoption. We now look to quantify how large this market could ultimately be.

Digital identity for individuals – addressable market of 756 million ENS domain names

We initially begin with the number of people globally aged between 16 and 50 years old. We assume that people aged below 16 would be too young to warrant a crypto address, while those aged above 50 tend to be increasingly set in their ways and less open to technology adoption. We exclude China from our analysis, given the Government opposes digital assets. We then assume that 40% of these people can afford at least one ENS domain name. While $5 a year is inexpensive in the developed world, this is still prohibitively high in the poorest regions. Our view is that, while Ethereum is likely to be the most successful layer one protocol, there is likely to be demand for other chains that optimize for different functionality. Thus, we assume that domain names across other L1s will also gain adoption. We assume that Ethereum

CAPTUR
RESEARCH

attains a 60% market share. Finally, we assume that each person buys on average 1 .eth address. Putting this all together implies an addressable market of 756 million ENS domain names.

Digital brand for businesses – addressable market of 189 million ENS domain names

We begin with an estimate of the number of companies globally, broken down between large companies and SMEs, which we define to have fewer than 250 employees. We exclude China from this analysis, given the Government's stance on the crypto sector. We assume that 90% of SMEs would be able to afford an ENS domain name with each one buying just the one domain name. We assume that all large companies can afford a .eth address, with each buying on average 2. We assume that Ethereum would attain a 75% market share, higher than for individuals, as we believe that Ethereum is optimized for security – a characteristic companies are likely to prefer. Putting this all together gives us an addressable market of 157 million ENS domain names.

Annual revenue opportunity of $4.6 billion for ENS DAO

Summing up the addressable market for both individuals and businesses gives us a total market opportunity of 913 million domain names. The price per ENS domain name is $5 per year for 5+ character .eth names, $160 per year for four character .eth names, and $640 per year for three character .eth names. Given the tiny number of three and four character .eth names in existence, we assume the average price per year per .eth name is $5. This implies that the annual revenue opportunity for ENS DAO is $4.6 billion.

Valuing the $ENS token

Approach

Addressable market estimate		Source / justification
1) Digital identity for individuals		
Number of people in the world (million)	8,000	Source: UN world population prospects
Number of people aged between 16-50 (million)	3,151	Excludes China. Source: UN world population prospects
% of people who can afford an ENS name	40%	Assumption. At $5 per year per address, it should be affordable for majority of developed world and a significant part of developing world
ETH market share	60%	Assume Ethereum is successful, but there is a multi chain world
Number of .eth addresses per person	1	
Addressable market (millions of .eth addresses)	756	A
2) Digital brand for businesses		
Number of SME businesses globally (million)	230	Number of SMEs globally based on top 25 countries excluding China and grossing up based on population.
% of SME companies who can afford an ENS name	90%	Majority of companies can afford $5 per year
Number of .eth addresses per SME company	1	
Number of large businesses globally (million)	0.68	Source: Statista
% of large companies who can afford an ENS name	100%	All large companies can afford $5 per year
Number of .eth addresses per large company	2	Larger companies are likely to have multiple .eth addresses
ETH market share	75%	Assume companies value security above all else and so a higher proportion will choose Ethereum over other L1s
Addressable market (millions of .eth addresses)	156.61	B
Total addressable market (millions of .eth addresses)	913	A+B
Annual price per ENS domain name ($)	5	As per ENS website - https://docs.ens.domains/. We assume the price for domains greater than or equal to 5 letters as this makes up the majority.
Annual revenue opportunity for ENS DAO ($ million)	4,565	

Figure 3: Addressable market size calculation. Source: Captur Research.

The biggest uncertainty in creating a framework to value the $ENS token is whether any cash flows will ultimately accrue to the token holder. At the moment, this is not the case. Any change would require a vote to be passed

CAPTUR RESEARCH

in the DAO. The likelihood of that happening is difficult to ascertain. On the one hand, should ENS domain registration continue to exhibit very strong growth, the treasury could potentially consist of billions of dollars, which could tempt delegators to vote to distribute at least some of it should there not be other constructive uses. On the other hand, ENS DAO is currently run as a public good and thus not run for profit purposes. While we expect token holders demanding value accrual to ultimately win, as it's in most people's nature to prefer monetary benefit over supporting a public good, we believe the key determinant for deciding whether to reward future token holders is future US security regulations. These are currently hard to get a clear view on.

With the valuation of $ENS so dependent on this variable, we have decided to use a probability-weighted valuation for these two outcomes.

$ENS valuation assuming cash flows eventually accrue to token holder

We calculated the revenue opportunity for the ENS DAO in the previous section. We now move on to the cost structure. As a starting point, we looked at a similar business in the web 2.0 world – GoDaddy. GoDaddy derives the majority of its revenue from selling internet domain names and thus should give us an indication of the cost base should ENS DAO scale up, with obvious differences which we can partly account for.

The biggest difference between GoDaddy and ENS DAO is that ENS DAO doesn't incur costs to register domain names. Given registration of domain names makes up 3600bps of margin for GoDaddy, this is a huge difference.

Technology and development costs are likely to be much lower in the web 3.0 world, given that ENS provides a much more decentralized and non-custodial service compared to GoDaddy. As noted in an excellent article by

Joel Monegro, Web vs. Crypto Service models, web 2.0 companies typically manage the entire product lifecycle of their services, enabling them to collect and solely control all the data contributed and generated by their users. The resultant impact is that they bear all the costs of production, such as building

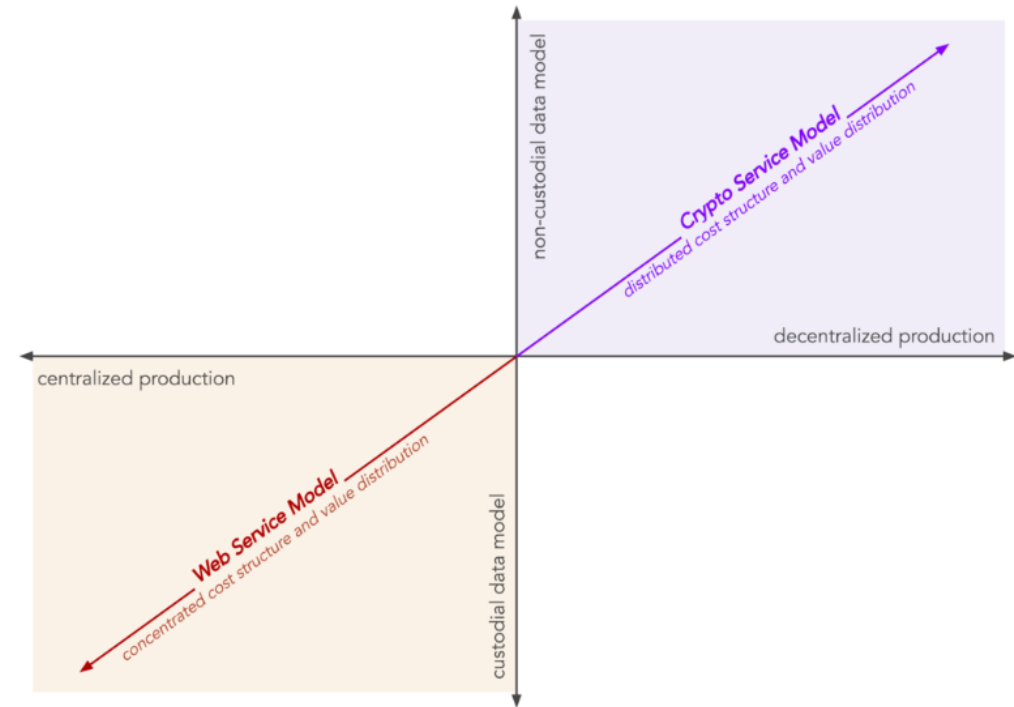*Figure 4: Web vs. crypto service models across two dimensions. Source: Joel Monegro's Web vs. Crypto Service models*

data centers. In contrast, in the web 3.0 world, these costs are distributed across a much broader group of people by using incentivized networks of nodes. Thus, we assume technology and development costs are 60% lower in a web 3.0 type business model.

Valuation		Comments
Total addressable market (millions of .eth addresses)	912.9	See addressable market table
Annual price per ENS domain name ($)	5	As per ENS website - https://docs.ens.domains/. We assume the price for domains greater than or equal to 5 letters as this makes up the majority.
Annual revenue opportunity for ENS DAO ($ million)	4,565	
EBIT margin	75%	Elevated margin as we assume that at least some of the expenses are/will be paid out in $ENS tokens which is taken into account by using fully diluted number of $ENS tokens as the denominator in token price calculation. In addition, we assume the contribution margin from the purchase of an additional ENS name is 100% which implies margin will be elevated. As a sense check, at $4.5bn of annual revenues, there will be $900mn of costs, the majority of which will be headcount.
EBIT ($m)	3,424	
Multiple	15	Slightly elevated multiple given attractive, sticky recurring revenue stream
$ENS token enterprise value ($ million)	51,353	EBIT x multiple
Treasury value	6,379	See treasury workings
$ENS token market value ($ million)	57,732	
Number of ENS tokens (million)	100	
ENS price ($)	577	
Discount rate	30%	
Time horizon years (by 2030)	8	
ENS token price present value	70.8	Disount back 8 years at 30%
Probability that cashflows accrue to token holders in the future	50%	
ENS price if cashflows do not accrue	13	Is there any value to the ENS token without cashflows accruing to it? Given the $ENS token ultimately gives a governance vote on how the treasury will be used, we think there is a significant value to the $ENS token particularly in light of the fact that the treasury value will be in the billions should our model be in the right ball park. However, it is extremely difficult to assign a valuation on these governance rights. For prudence, we assume the $ENS price remains where it is today.
Probability that cashflows continue not to accrue to token holders in the future	50%	
Probability weighted $ENS token price	41.9	
Current $ENS price	13	
Upside	222%	

Figure 5: Valuing the $ENS token. Source: Captur Research.

Marketing costs are also likely to be far lower in the web 3.0 world, given the existence of the $ENS token. The incentive structure that arises with tokens means holders of the token act as a decentralized marketing team, promoting the project as wider adoption of the ENS domain system benefits all token holders. While this doesn't completely eradicate marketing costs, we think there will be a significant reduction. Furthermore, the DAO has set aside 50% of the outstanding $ENS tokens for the community treasury, part of which is likely to be used to increase brand awareness and promote the project. We account for these additional tokens by using FDV token numbers when calculating token price.

	GoDaddy in Web 2.0 % of revenue	ENS DAO in Web3.0 % of revenue	Comments
Revenues	100%	100%	
Registration of domain names	-36%	0%	GoDaddy buys the domain names from accredited registrars and resells them. ENS does not do this so this cost line is 0 for ENS
Technology and development	-19%	-7%	Decentralised business model spreads technology costs across multiple third party networks
Marketing	-13%	-4%	We assume 70% less marking costs in web 3.0. With the $ENS token, marketing costs will be significantly less as you already have thousands of $ENS token holders evangelising the project given the incentives.
Customer care	-8%	-8%	Similar costs given this is likely to be made up of headcount.
General & Admin expenses	-9%	-4%	Lower rental/facilities costs as people work mainly from home
Depreciation & Amortisation	-5%	-2%	The big advantage of a decentralised business model is that it is much less capital intensive than Web 2.0, given lack of buildings/land/data centres
Total costs	-90%	-25%	
EBIT margin	10%	75%	

Figure 6: Comparing GoDaddy in the web 2.0 world to ENS DAO in web 3.0. Source: Captur Research.

G&A costs in web 2.0 consist of, amongst others, rental and facilities costs which in a decentralized business model are much lower, as most people likely work from home. We therefore take a 60% haircut for G&A. A similar argument can be made for having a much lower depreciation and amortization line as building costs are likely to be much lower in web 3.0.

Putting this all together suggests an EBIT margin of 75% for ENS DAO.

We assign an EV/EBIT multiple of 15x

It's difficult to look at peer multiples of similar businesses to assess the kind of multiple we should be attaching to ENS DAO, given the nascent stage of the sector. However, there are some characteristics we can look at to allow us to come to a sensible multiple. The revenue stream is likely to be sticky, with little attrition. When you have built up a digital identity or company

brand, you are unlikely to abandon it by not renewing your license. Also, this is a recurring, predictable subscription-based revenue business model, which is looked upon favorably by investors, and thus these types of businesses command a higher multiple. Also, these businesses are less capital intensive and have higher margins, meaning the ROIC is likely to be very high. Again these types of businesses attract a high multiple. Based on these factors, we assign an EV/EBIT multiple of 15x.

Modeling treasury value as we bridge from EV to token market cap

Next, we model the treasury value as this is then added onto the enterprise value of the ENS token to get to market capitalization, using a similar method used in traditional finance when valuing equities. In order to model the

Year $mn	0	1	2	3	4	5	6	7	8
Revenue	57	98	170	293	507	875	1,512	2,611	4,509
Revenue growth rate		173%	173%	173%	173%	173%	173%	173%	173%
EBIT margin	75%	75%	75%	75%	75%	75%	75%	75%	75%
EBIT	43	74	127	220	380	656	1,134	1,958	3,382
Tax rate	20%	20%	20%	20%	20%	20%	20%	20%	20%
NOPAT	34	59	102	176	304	525	907	1,566	2,705
Treasury	6,379								

Figure 7: Estimating the ENS DAO treasury value by 2030. Source: Captur Research.

treasury value, we take the revenue potential for ENS DAO we calculated earlier and assume this will be achieved by 2030. Taking current LTM (last 12 months) revenues of $57 million as per Token Terminal, we calculate the revenue growth rate that takes us to the revenue opportunity in 2030. We assume a 75% EBIT margin, as justified above. We then use NOPAT (EBIT *(1-tax rate)) as a crude estimate for FCF. Capex, working capital, depreciation and amortization are negligible given asset light business model.

Discounting back to present day valuation

We then arrive at a token market cap for $ENS. Dividing this by the total number of $ENS tokens on a fully diluted basis gives us an $ENS price. However, this is the value of $ENS in 2030. We're trying to value the token today. We thus discount this back eight years to today at a relevant discount rate that reflects the risk profile of the asset. We take 30% as we deem the crypto market to be high risk.

$ENS valuation assuming cash flows do not accrue to token holder

Is there any value to the $ENS token without cash flows accruing to it? Given the $ENS token ultimately yields a governance vote on how the treasury will be used, we think there is a significant value to the $ENS token, particularly in light of the fact that the treasury value will be in the billions of dollars should our model be in the right ballpark. However, it is extremely difficult to assign a valuation on these governance rights. For prudence, we assume the $ENS price remains where it is today.

Assigning a probability to cash flows accruing to the $ENS token holder

This is extremely difficult and a matter of judgment. To help the reader, we have performed a sensitivity analysis where we alter the probability along with another variable that has a large bearing on the valuation of $ENS – the discount rate. (See the table below.)

As can be seen in figure 8, given the huge upside potential should $ENS fulfill its promise, an investor only has to think there is a small chance that ENS DAO decides to transfer cash flows to $ENS holders for the risk-reward to be reasonable.

How to play this?

There are two options to gain exposure to the ENS domain opportunity.

$ENS token price						
	Discount rate					
Probability of revenue accruing to $ENS token holders	**20%**	**25%**	**30%**	**35%**	**40%**	**45%**
10%	25.1	21.4	18.8	16.9	15.6	14.7
20%	37.3	29.8	24.6	20.9	18.2	16.3
30%	49.4	38.2	30.3	24.8	20.8	18.0
40%	61.5	46.5	36.1	28.7	23.4	19.6
50%	73.6	54.9	41.9	32.7	26.1	21.3
60%	85.8	63.3	47.7	36.6	28.7	22.9
70%	97.9	71.7	53.4	40.5	31.3	24.6
80%	110.0	80.1	59.2	44.5	33.9	26.2
90%	122.1	88.5	65.0	48.4	36.5	27.9
100%	134.3	96.9	70.8	52.3	39.1	29.5

Upside / downside to current $ENS token price						
	Discount rate					
Probability of revenue accruing to $ENS token holders	**20%**	**25%**	**30%**	**35%**	**40%**	**45%**
10%	93%	65%	44%	30%	20%	13%
20%	187%	129%	89%	61%	40%	25%
30%	280%	194%	133%	91%	60%	38%
40%	373%	258%	178%	121%	80%	51%
50%	466%	323%	222%	151%	100%	64%
60%	560%	387%	267%	182%	121%	76%
70%	653%	452%	311%	212%	141%	89%
80%	746%	516%	356%	242%	161%	102%
90%	840%	581%	400%	272%	181%	115%
100%	933%	645%	444%	303%	201%	127%

Figure 8: Sensitivity analysis varying discount rate and probability of revenue accruing to $ENS. Source: Captur Research.

1) Buy the governance token $ENS
2) Buy ENS domain names

We outline the upside potential of buying the $ENS token. This relies, however, on the belief that there is at least a small probability that revenues and cash flows will accrue to $ENS holders in future, something that has to be voted on by the ENS DAO.

Should one not believe this will happen, the other way of gaining exposure is to buy ENS domain names, with a view that these increase in value. We won't go into detail as to the kinds of domain names to buy, as this is tricky to evaluate, but looking at the floor price of three- and four-digit names, uncovering undervalued names can be lucrative.

Assumptions / risks

Given the nascent stage of the digital asset sector, multiple assumptions have been made in this analysis. We highlight the most important ones here:

- Ethereum succeeds as the predominant layer one
- The market believes there is at least a small chance that cash flows accrue back to ENS holders. This is not certain, but in the crypto space, sometimes all that's required is the belief that it might one day
- The SEC could deem $ENS a security should cash flows accrue back to token holders, thus increasing the cost burden and friction around the ecosystem.
- It is tough to value the governance aspect of holding the $ENS token.

Appendix

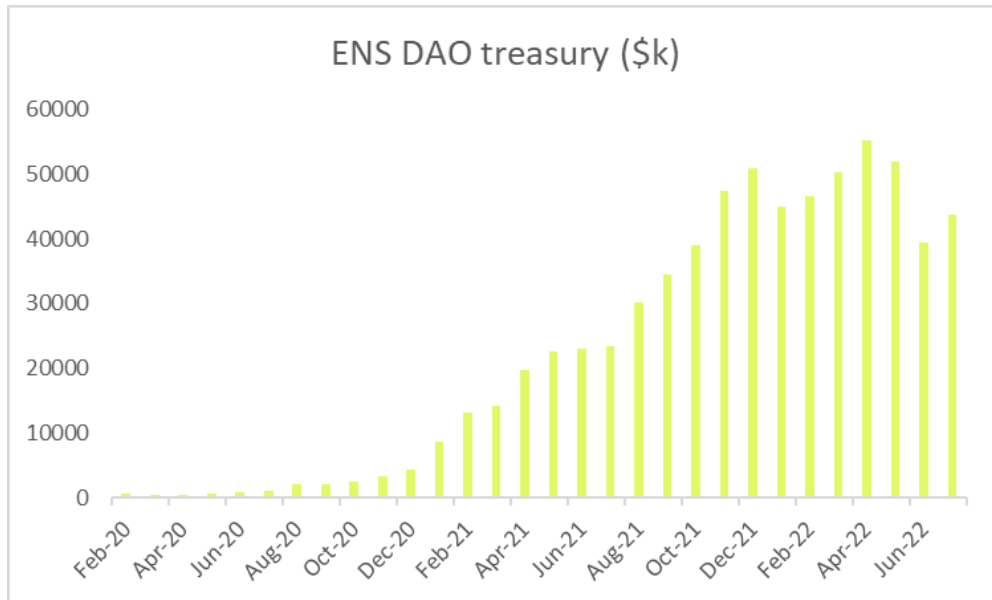See next page for Financials, Ownership Structure, and Tokenomics.

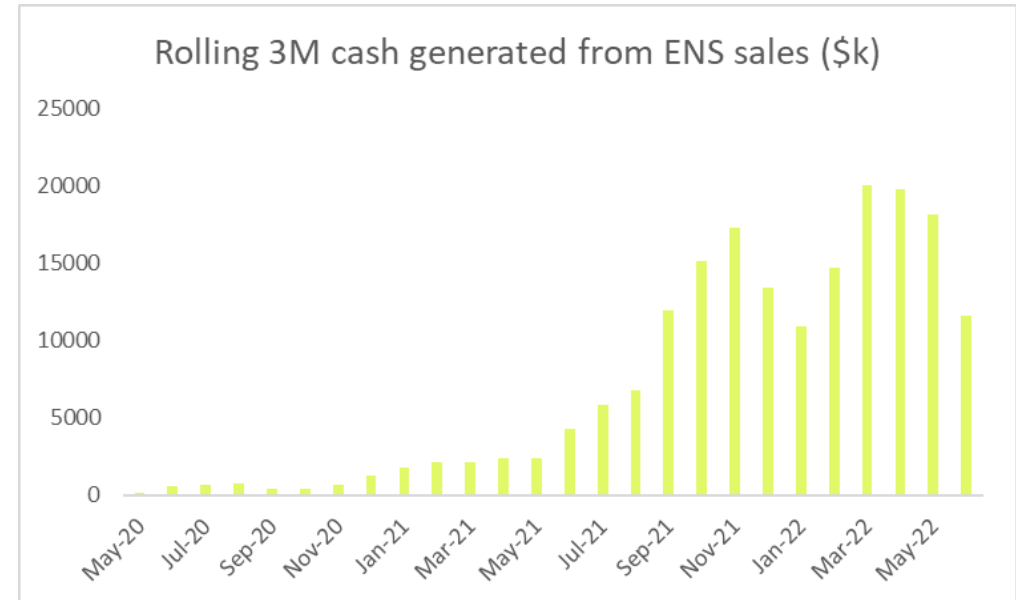Figure 9: ENS DAO treasure value since 2020. Source: Dune.

Figure 10: ENS DAO treasure value since 2020. Source: Dune.

Ownership structure

The ENS DAO is a DAO that governs the ENS protocol. It has a legal entity, which represents the DAO in the "real world", called the ENS Foundation. It is incorporated in the Cayman Islands, and gives significant powers to the ENS DAO. The DAO may vote to appoint or remove a director, member, or supervisor; prohibit admitting any members in the future; instruct the directors to wind up the foundation, and specify what charity or other

foundation should receive the foundation's assets. The primary mechanism by which the DAO gets things done is via "Requests for Proposal" (RFPs). An RFP is a request from the DAO for contributors to offer to do work on its behalf, and receive compensation in return.

Tokenomics look favorable

There doesn't seem to be any major issues with the token unlock schedule. 25% of tokens were airdropped to anyone who had bought a domain name prior to the airdrop announcement, and these are all in circulation. Another 25% is reserved for core contributors and launch advisors, which have a four-year lock-up period and vesting schedule. And, finally, 50% of the tokens are

reserved for the community treasury to be used to grow the protocol.
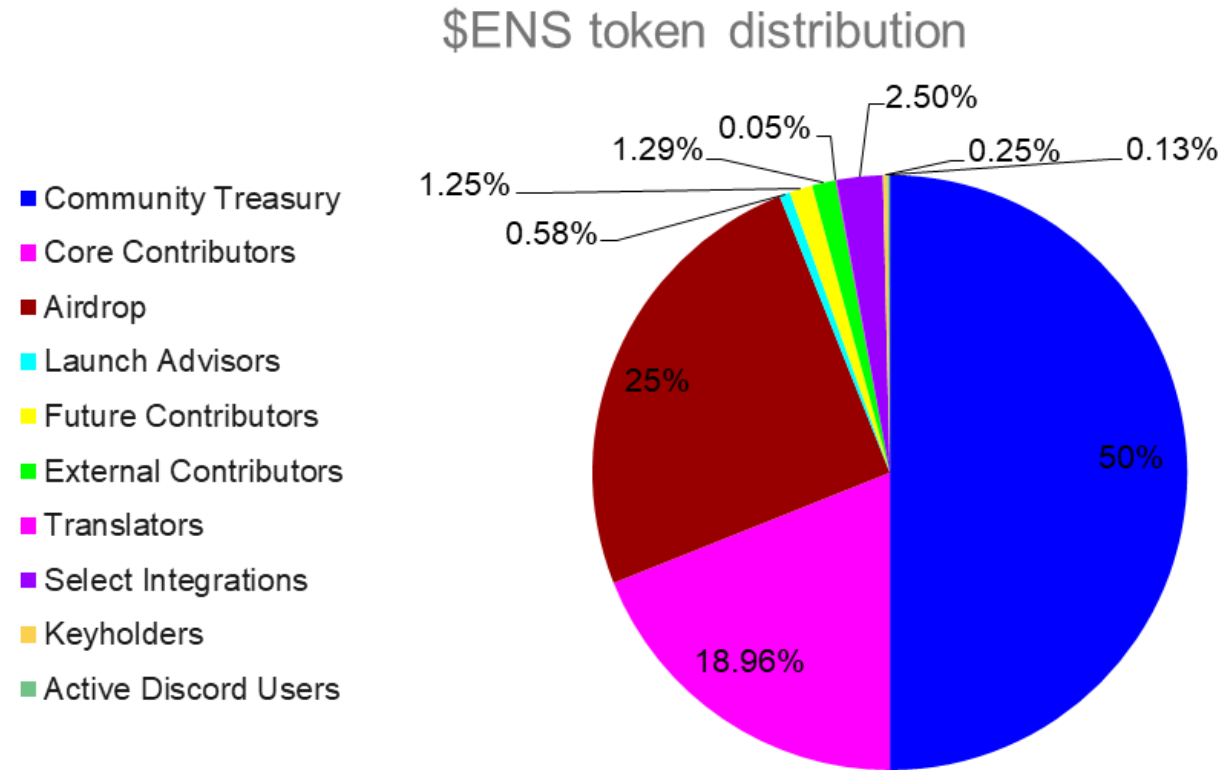
◆ TokenTurtle

Figure 11: Distribution of $ENS tokens. Source: https://ens.mirror.xyz/-eaqMv7XPikvXhvjbjzzPNLS4wzcQ8vdOgi9eNXeUuY

UPCOMING
EVENT RISK
FOR SEPTEMBER

September
2

UNEMPLOYMENT

US Non-Farm Employment Change (forecast: 295K; previous: 528K)
US Unemployment Rate Released (forecast: 3.5%; previous: 3.5%)

September
13

INFLATION DATA

US Consumer Price Index Data

September
15

ETHEREUM MERGE (TENTATIVE DATE)

One of the most important network updates in the history of crypto.
The Merge is scheduled for block 58750000000000000000000.

September
21

FOMC

FOMC Economic Projections, Statement, Federal Funds Rate, and
Press Conference

CRYPTO TWITTER SAYS

"After having gone over how validator-level OFAC censorship on the Ethereum main in my head several times, I am very much less confident that this is something that would really be tried by Coinbase, Kraken, Binance et. al.

It is not just because of the DoS vector (which I agree is tolerabla with filters), it's more that it has to be coordinated, otherwise uncoordinated individual censoring validators just gets minor attestation penalties (may aswell unstake instead).

Also, let's say you don't help block A make progress by refusing attestation, but it finalizes anyway. If you help block OFAC-compliant block B make progress, aren't you also helping block A make progress?

You need a very specific interpretation of OFAC compliance in order to very narrowly interpret it as your job to perform a censorship attack on the network. But let's say validators do this, for humors sake.

Again, they need to be rather synchronized when they start censoring, otherwise they will lose some money while achieving nothing, so most likely, they would have to coordinate by activating censorship together on a specific date.

So now we're actually in this already a bit farfetched assumption that Coinbase, Binance, Kraken etc. are modifying a consensus client with an
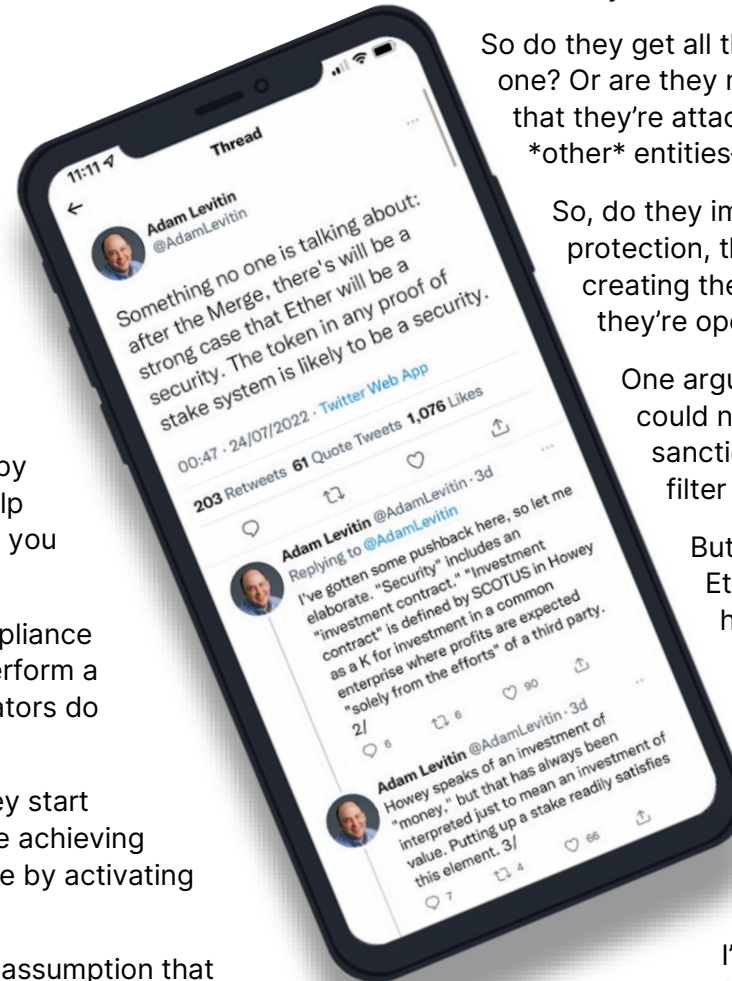
OFAC censorship flag day (planned activation date), despite knowing that the community stance is to slash them for it.

So do they get all the ETH2 consensus client teams to work with them? Or just one? Or are they modifying these clients themselves? And now that they know that they're attacking the network (which causes huge financial damage to *other* entities—illegal?), they can assume a split.

So, do they implement replay protection? If they implement replay protection, they're not actually attacking the network anymore, they're creating their own hardfork. If they don't implement replay protection, they're opening up for even more havoc during the fork.

One argument in favor of going down the hardfork route is that they could now properly fix the DoS vector by starting to charge gas for sanctioned failing transactions instead of relying on an offchain filter for those.

But again, who is developing this system? And why try to call it Ethereum and cause a great conflict in crypto and make users hate them? And even if they did hardfork like this, what about their stake left on the original fork? Do they unstake that, then?

If they plan to unstake the ETH on the original chain they better start early because the queue takes 1-2 months each. If that's no good, do they go back to their original plan of not hardforking but instead doing the censorship attack on the mainnet instead and risk everything?

I'm trying to work this through my head from the OFAC-compliant validator's side and it is just a huge mess, and the future outlook of having to think of which govs to comply with and which ones not

to makes the whole mission feel DoA (you need consensus on which filters to use)

And if your network is supposed to be government-controlled, can't you make some better design decisions? Why have all the legacy code of the slow Ethereum project that tried to be decentralized when you don't optimize for the same goal? Can't you go faster?

But if you go faster, can you really be a money? If the ultrasound money meme dies, won't your market cap deflate tremendously? And if the market cap deflates, will exchanges even call you "Ethereum"? And if they don't call your low-cap coin Ethereum, what did you achieve?

Nah. I can't see anyone realistically embark upon this road.

Sorry typos, literal stream of consciousness again"

—Eric Wall (@erwcl)

Eric Wall was CIO at Arcane Assets until recently, and is a former advisor of the Human Rights Foundation on crypto and privacy.

COLOPHON

Captur Research

- Head of Research   Sander Kok
- Senior Analyst   Paul Hoffman
- Senior Analyst   TokenTurtle
- Junior Analyst   Luis H. Borges
- Junior Analyst   0xKyle
- Junior Analyst   Sven Kamieth
- Designer   Ashik Arifa
- Intern   Zach Miller

Captur

- CEO & Founder   Khing Oei
- CSO   Sander Kok
- CTO   Vasile Cojusco
- Community Manager   Karsten Lenterman
- Marketing Manager   Henry O'Byrne
- Blockchain Technical Advisor   Lawrence Ka Chun Hui
- Advisor   Bert Rigter

————

We're hiring! Shoot a message to <u>sander@captur.fi</u> if you believe you can write the best analyses out there.