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


## Assessment January 2023

The current K33 Vinter Quality Index is a selection of the top 30 cryptocurrencies by market cap as of the 25<sup>th</sup> of January, 2023. 9 of 30 tokens passed through the quality filter, resulting in the index being an equally weighted index of the 9 included cryptocurrencies, as shown below.

K33-Vinter Quality Index Selection											
1		Bitcoin	IN	11		Litecoin	OUT	21		Bitcoin Cash	OUT
2		Ether	IN	12		TRX	OUT	22		Lumen	OUT
3		BNB	OUT	13		AVAX	IN	23		OKB	OUT
4		XRP	OUT	14		UNI	IN	24		Cronos	OUT
5		ADA	OUT	15		LEO	OUT	25		Near	OUT
6		Dogecoin	IN	16		ATOM	IN	26		ApeCoin	OUT
7		Matic	IN	17		Monero	IN	27		Lido DAO Token	IN
8		SOL	IN	18		LINK	OUT	28		Quant	OUT
9		DOT	OUT	19		Ether Classic	OUT	29		FIL	OUT
10		Shiba Inu	OUT	20		Tonecoin	OUT	30		ALGO	OUT

## Categorization

The first step in the quality filter is to categorize each token. The categorization is not a filter (exclusion criteria) in itself, but is highly important when evaluating the tokens later.

K33-Vinter Quality Index – Top 30 Categorization					
1		Bitcoin	Payment	16	 ATOM IBC
2		Ether	Smart Contract	17	 Monero Payment
3		BNB	Centralized Exchange	18	 LINK Specialized Utility
4		XRP	Money Infrastructure	19	 Ether Classic Smart Contract
5		ADA	Smart Contract	20	 Toncoin IBC
6		Dogecoin	Payment	21	 Bitcoin Cash Payment
7		Matic	Smart Contract	22	 Lumen Money Infrastructure
8		SOL	Smart Contract	23	 OKB Centralized Exchange
9		DOT	IBC	24	 Cronos Centralized Exchange
10		Shiba Inu	Payment	25	 Near Smart Contract
11		Litecoin	Payment	26	 ApeCoin Community
12		TRX	Smart Contract	27	 Lido DAO Token DeFi
13		AVAX	Smart Contract	28	 Quant IBC
14		UNI	DeFi	29	 FIL Specialized Utility
15		LEO	Centralized Exchange	30	 ALGO Smart Contract

## Digital Assets

## K33 Vinter Quality Index

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## Quality Filter

1. Categorize: Each asset is assigned to a category, which allows for relative comparison.
2. Exclude: Assets with faulty tokenomics, missing information, or presenting a lack of transparency, are taken out.
3. Evaluate: Five pillars enable the evaluation of an asset's quality for each category.
4. Rank: The Quality Filter selects the highest-ranked assets with scores above the cut-off Quality Score.







## Categories

- Smart Contract
- Payment
- DeFi
- Inter-Blockchain Communication
- Centralized Exchange
- Money Infrastructure
- Specialized Utility
- Community
- Gimmick

**Pre-exclusion**

Before evaluating the cryptocurrencies on the five pillars, we have excluded six tokens that will not be evaluated.

**K33-Vinter Quality Index – Pre-pillar excluded tokens**

	Token	Category	Exclusion reason
3	 BNB	Centralized Exchange	Centralized exchange risk
15	 LEO	Centralized Exchange	Centralized exchange risk
18	 LINK	Specialized Utility	Faulty tokenomics – no link from use to token value
23	 OKB	Centralized Exchange	Centralized exchange risk
24	 Cronos	Centralized Exchange	Centralized exchange risk
26	 ApeCoin	Community	Hard to value the worth of access at this point

We have excluded all tokens relating to centralized exchange services. Centralized exchange tokens are a heavily debated type of cryptocurrency. And in a sense, it's really up for debate whether they should be called cryptocurrencies at all, as most of the value proposition is fully dependent on trusting the exchange.

It's also hard to evaluate whether the value proposition of most exchange tokens should create significantly good token price pressure. First and foremost, exchange tokens are not like a company stock; you have no claim on the dividends of the exchange. Instead, the two common value capture mechanisms for the exchange tokens are:

- Through holding or using the token, you will get lower trading fees on the exchange
- The exchange promises to use a certain percentage of its profits to buy back and burn the token until a given amount of tokens are burned.

Once again, it should be noted that this value capture mechanism is fully dependent on the exchange keeping its word. With the recent FTT (FTX) saga fresh in mind, we have decided to leave out all exchange tokens from the index at the moment. This stance might be changed later.

The principle tokenomics of Chainlink sounds reasonable. Data subscribers pay data providers in LINK to enter off-chain data into the Chainlink Network. At the same time, data providers must lock LINK on the network, which they will lose if they provide poor data.

The oracle data being provided is not advanced and does not require much work. In other words, the marginal cost of providing oracle services is low. We believe that this will show itself in the market over time, and since simple oracle services are easily substitutable, LINK cannot be worth that much.

At the same time, and the reason for the exclusion, there is no direct relationship between the users of price feeds and paying for these price feeds. In simple terms, this means that Chainlink price feeds are paid for pro bono. There are certainly profit actors interested in maintaining a high-quality Chainlink service, but the uncertainty surrounding the value proposition of LINK is too significant for us to include the token in the index.







Apecoin is, most of all, a memecoin. For now, you have governance rights, and holdings can serve as a ticket to BAYC events. At the moment, we find it too challenging to put a sensible price on this and find it extremely hard to make a case for a valuation like today.

## The Five Pillars and making the selection

In the January assessment, we are left with 24 cryptocurrencies to be evaluated on the five pillars. When evaluating the five pillars, we take into account the cryptocurrency's category, as evaluating all by the same metrics on each pillar would make no sense.

### Payment tokens

There are six cryptocurrencies in the Payment category in the top 30 as of January 25<sup>th</sup>, 2023. The payment cryptocurrencies and their pillar scores are shown in the table below. The reasoning behind the scores is discussed following the table.

K33-Vinter Quality Index – Payment								
	Token	Category	Persistent Network Effects	Use	Regulatory Risk	Ecosystem size and liveness	Inflation schedule and ownership concentration	Score
1	 Bitcoin	Payment	5	4	5	5	5	4.83
6	 Dogecoin	Payment	4	2	4	2	3	3.17
10	 Shiba Inu	Payment	1	1	4	2	1	1.67
11	 Litecoin	Payment	1	1	4	1	4	2
17	 Monero	Payment	3	4	2	4	4	3.33
21	 Bitcoin Cash	Payment	1	1	4	1	4	2

### Persistent Network Effects

Bitcoin fathered the concept of cryptocurrency. Bitcoin (BTC) is embedded into multiple used services, owned by many, kept its position through all cycles, and is the symbol of store-of-value in crypto. The code is simple, the use case is simple, and it's all about network effects. Bitcoin is in our view the crypto with the strongest network effects.

Other than bitcoin, we can only find arguments for Monero (XMR) and Dogecoin (Doge) exhibiting any signs of persistent network effects. XMR is the currency of choice for private and secret purchases, perhaps the most stable demand driver for the use of cryptocurrency. Doge is the original memecoin, and its track record spans multiple cycles.

Bitcoin Cash and Litecoin are Bitcoin copies with slight modifications. Bitcoin Cash has a small but avid following, and basically no traction outside this crowd. We believe Litecoin is still alive simply from having a Bitcoin-like code and being early to the exchanges, with no reason for exchanges to delist Litecoin at the current moment.

Shiba Inu was in our opinion a money-grab operation to feed on the market frenzy of 2020 and 2021, and without the history of Doge, we can't see why it should stick around in the long term.

### Use

The main use of all the SoV/MoE tokens is as speculative investment vehicles on centralized exchanges. Still, in terms of use for purposes other than simply trading or holding, BTC and XMR clearly stand out.

### Regulatory Risk

The proof of work consensus mechanism is a common regulatory risk facing all the SoV/MoE tokens. While proof of work – i.e. mining – faces scrutiny from environmentally concerned regulators and politicians, mining's portable nature prevents the networks' security from being in danger despite countries potentially banning mining.

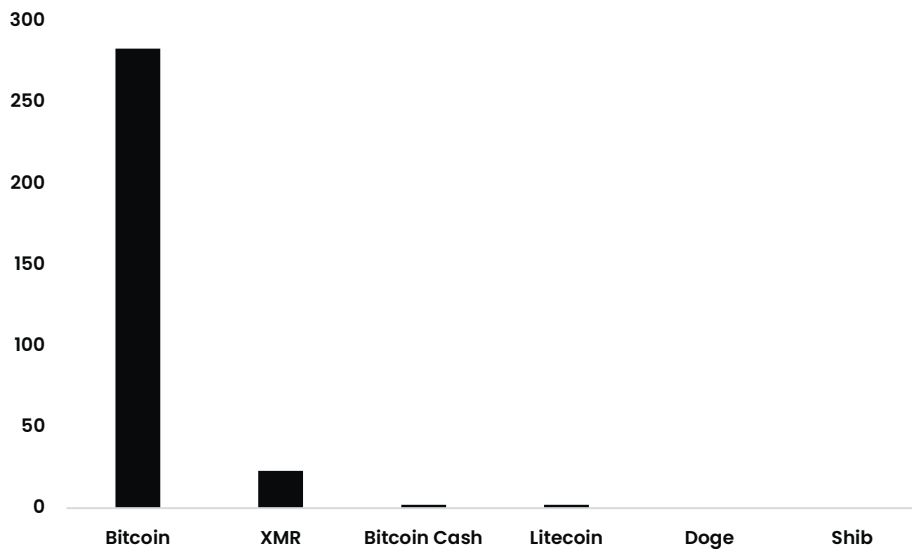
The more considerable investment risk is that jurisdictions can ban people from owning these tokens because their networks use a proof of work consensus mechanism. The measure would be draconian and likely face severe backlash, and the connection from mining to the token's value is in the past, which also will make a ban harder. We believe the risk of bitcoin and similar coins being banned in the key price-driving markets to be minimal even though the discussion will stay noisy. Bitcoin receives one grade higher than Litecoin, Bitcoin Cash, etc., due to being the only token the SEC explicitly has categorized as a commodity to date.

Monero stands out negatively in terms of regulatory risk. Monero is a privacy coin, and its main use case is Darknet purchases of drugs, weapons, etc. The inability to monitor Monero transfers has already placed regulatory scrutiny on Monero, with several big exchanges voluntarily delisting Monero.

### Ecosystem size and liveness

We see that the number of active developers is by far the highest for Bitcoin. In 2nd place, by a large margin, we find Monero, before the remaining protocols have very few people working on them.

Figure 1 – Weekly active developers. Date: Feb 1, 2023



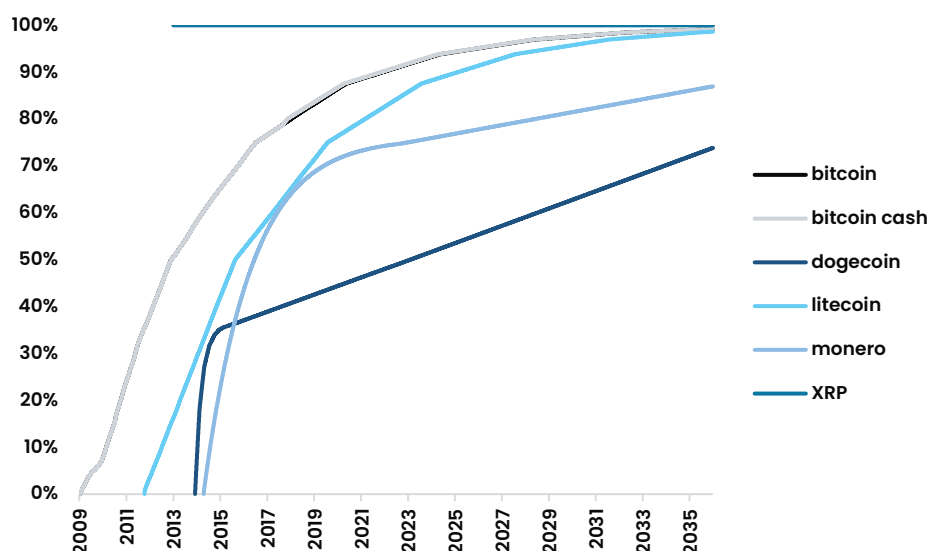
Source: [Artemis](#)

We have scored Dogecoin and Shiba Inu one grade higher than Bitcoin Cash and Litecoin, which might seem unintuitive based on the number of weekly active developers. The pillar is, however, not judged on developer activity alone. The ecosystems surrounding the memecoins are more vibrant, even though 'memey', and hence the higher score.

### Inflation schedule and ownership concentration

Bitcoin, Bitcoin Cash, and Litecoin have the same theoretical supply schedule. Bitcoin Cash is a fork of Bitcoin, and hence the supply and remaining issuance are almost identical. Litecoin, however, started on a later date, and a larger percentage of the supply is, therefore, still to be issued.

Monero and Dogecoin have significantly different supply schedules from Bitcoin. Both Monero and Dogecoin have what is called constant tail emissions. Constant tail emissions mean that the same amount of tokens will be issued annually for all eternity. The two supply schedules are still vastly different. A larger percentage of Monero's supply was issued before entering tail emissions, and the tail emissions are relatively smaller compared to Dogecoin.

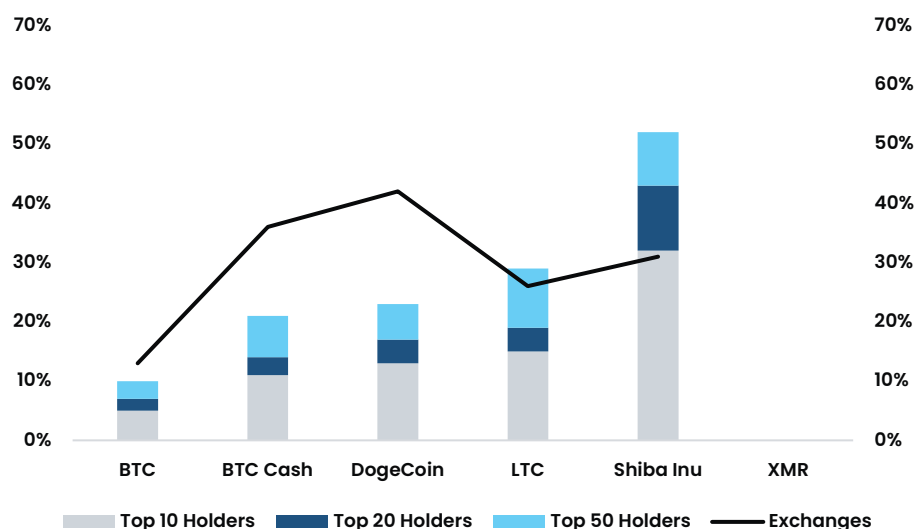
**Figure 2 – Supply schedules measured as percentage of the expected supply in 2050.**

Source: K33 Research

Ownership concentration is hard to evaluate due to the pseudonymous nature of the blockchain entries. One entity can be behind multiple seemingly unrelated addresses. There are some methods to cluster addresses together, but this is easy to avoid for the technically sound. Still, even though the numbers are hard to interpret, there are substantial differences in ownership concentration among the payment tokens.

All Shiba Inu tokens were pre-allocated, meaning there is no new issuance. Shiba Inu, unsurprisingly, also stands out negatively with a very high ownership concentration. For all the other tokens, all coin issuances are block rewards. But no allocations don't necessarily mean that ownership is highly spread out. The issuance schedules are massively frontloaded – early adopters will in practice get huge allocations.










In the figure below, we have listed the percentage of tokens held on exchanges and the share of tokens held by the top 50 addresses (excluding exchanges). Bitcoin clearly has the lowest ownership concentration of all the tokens. Bitcoin Cash, Litecoin, and Dogecoin appear to have similar distributions, while Shiba Inu tokens are highly concentrated, as noted earlier. The privacy features of Monero prevent us from obtaining similar statistics for XMR. XMR is, relative to most other coins, used frequently as a medium of exchange, and hence we believe the supply to be fairly spread out. However, the lack of data makes us put it slightly below bitcoin.

**Figure 3 – Ownership concentration**

Source: K33 Research

## Smart contract

There are nine cryptocurrencies in the smart contract category in the top 30 as of January 25<sup>th</sup>, 2023. The smart contract cryptocurrencies and their pillar scores are shown in the table below. The reasoning behind the scores is discussed following the table.

K33-Vinter Quality Index – Smart Contract								
	Token	Category	Persistent Network Effects	Use	Regulatory Risk	Ecosystem size and liveness	Inflation schedule and ownership concentration	Score
2	 Ether	Smart Contract	4	5	4	5	5	4.5
5	 ADA	Smart Contract	1	1	4	2	3	2
7	 Matic	Smart Contract	2	3	4	3	3	2.83
8	 SOL	Smart Contract	2	3	4	3	2	2.67
12	 TRX	Smart Contract	2	3	4	1	1	2.17
13	 AVAX	Smart Contract	2	3	4	2	2	2.5
19	 Ether Classic	Smart Contract	1	1	4	1	3	1.83
25	 Near	Smart Contract	1	1	4	3	1	1.83
30	 ALGO	Smart Contract	1	1	4	1	1	1.5

### Persistent Network Effects

Smart contract blockchains have been a profitable path for projects to launch with the promise of some extra capability that generates hype and token value. Especially through 2021, we saw the mega-hype on alternative layer-1 blockchains, often dubbed Ethereum killers, rise to fame and their associated token prices skyrocketed.

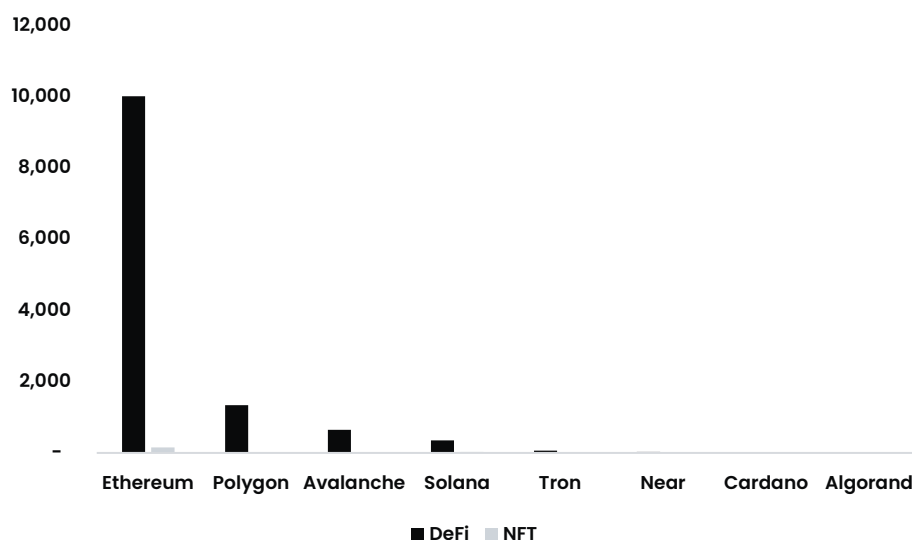
Even though the prospect of a token becoming the new Ether is enticing, there is very little evidence of that happening for other smart contract tokens. Up until now, Ethereum competitors have attracted users by offering higher transaction throughput by making various tradeoffs that sacrifice potential decentralization (like introducing demanding hardware requirements to run a node). This has been partly successful during peak mania when transaction fees on Ethereum were astronomic. But with the market downturn, the persistence in this demand seems very low, and there is little evidence of any services with huge change costs being developed on these blockchains. In our view, the persistent network effects on most of the alternative smart contract blockchains are minimal.

### Use

DeFi, NFTs, and other applications are the focal point of why a smart contract blockchain would be preferable to a simpler blockchain. For a smart contract blockchain native token to be valuable in the long run, we should, therefore, at least expect this token to be used for those purposes. Interestingly enough, lots of the quite highly valued smart contract blockchain native tokens have basically no persistent use of the special abilities of the blockchain, and it's hard to see why this would change drastically in the future.

We have divided the smart contract blockchain native tokens into three groups of *use* activity. Ethereum reigns supreme at the top. In the next tier, we have blockchains with quite some use, but the lasting effects seem uncertain when looking at how they respond to worse market conditions. In the last tier, we have blockchains with virtually no use, and hence there should be no lock-in effect when new and probably 'smarter' chains are launched in the future. In the current bear market, use for non-CEX trading will almost perfectly overlap with the assessment of persistent network effects. In the bull market of November 2021, however, they would not have been the same.

Figure 4 – DeFi and NFT weekly volumes on the different chains. Date: Feb 1, 2023



Source: DeFillama and Dappradar

### Regulatory risk

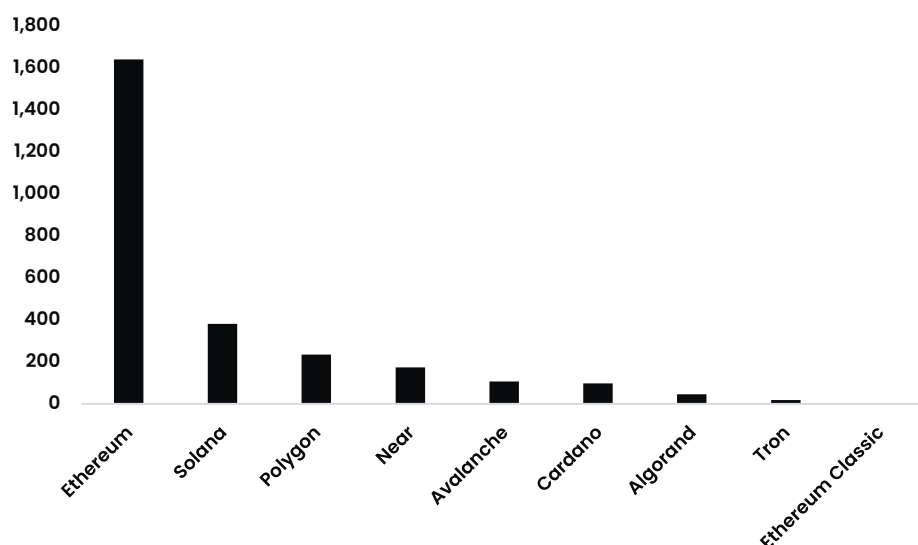
In terms of regulatory risk, there is not much difference between the tokens in this category and their smart contract blockchains. Most of the chains are launched with huge pre-allocations, leading to uncertainty around whether they should be regarded as securities. In addition, proof of stake can be argued to function as an interest rate mechanism for token holders.

### Ecosystem size and liveness

In the euphoric market of 2021, development on less established blockchains often was the superior strategy for a quick buck, but this was pretty much flipped on the head when market conditions worsened. Therefore, persistent developer activity, irrespective of market conditions, is of great importance.

Yet again, we see that Ethereum stands out at the top in terms of the combination of developer activity and interest surrounding the developments. We can divide the other blockchains into three brackets in terms of developer activity. Solana, Polygon, and Near are all in the same ballpark in terms of the number of weekly active developers. Polygon stands somewhat out on the demand side with many large brands launching products on Polygon. Historically, high-profile collaborations have not been a good predictor of success, so little emphasis is put on this in assessing project liveness.

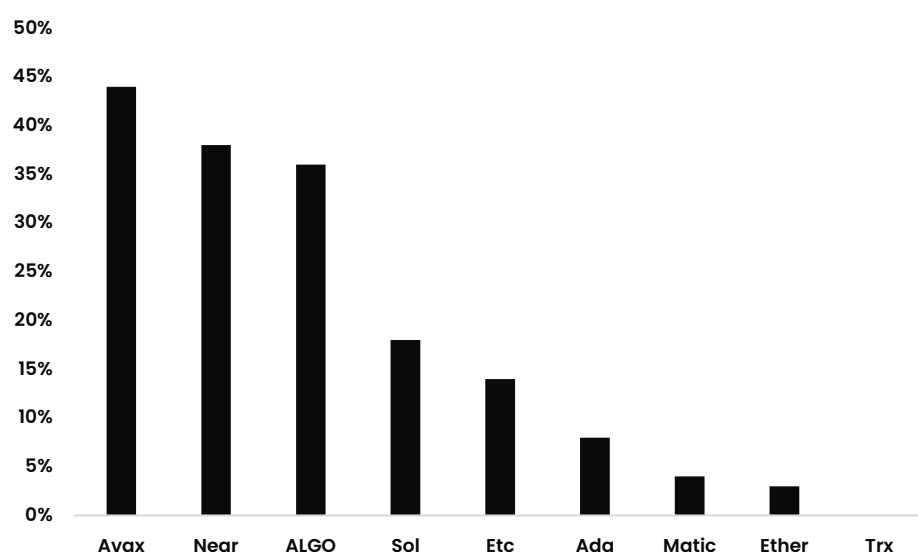
In the second bracket, we have placed Cardano and Avalanche, while Algorand, Tron, VeChain, and Ethereum Classic are all given the lowest score due to little developer activity.

**Figure 5 – Weekly active developers. Date: Feb 1, 2023**Source: [Artemis](#)**Inflation and Ownership Concentration**

Ethereum has the superiorly best combination of expected inflation and a spread-out ownership. Ethereum's long-term usage has been essential in getting the supply spread out on, relative to the other token supplies, many owners.

Not anywhere near Ethereum, but among tokens with an acceptable combination of inflation and ownership concentration, we have put Matic, Ada, and Ethereum Classic. TRX has no inflation as the supply is fixed, but the large concentration in token ownership is deemed a considerable risk and is hence given the lowest score.

AVAX has a large outstanding supply, but we believe ownership to be more spread out than many others. Solana has some huge power players in terms of token holders, which are deemed a significant risk, while Near and ALGO both have large outstanding issuance and likely a concentrated token ownership.

**Figure 6 – Remaining issuance of total expected supply in 2028.**

Source: K33 Research

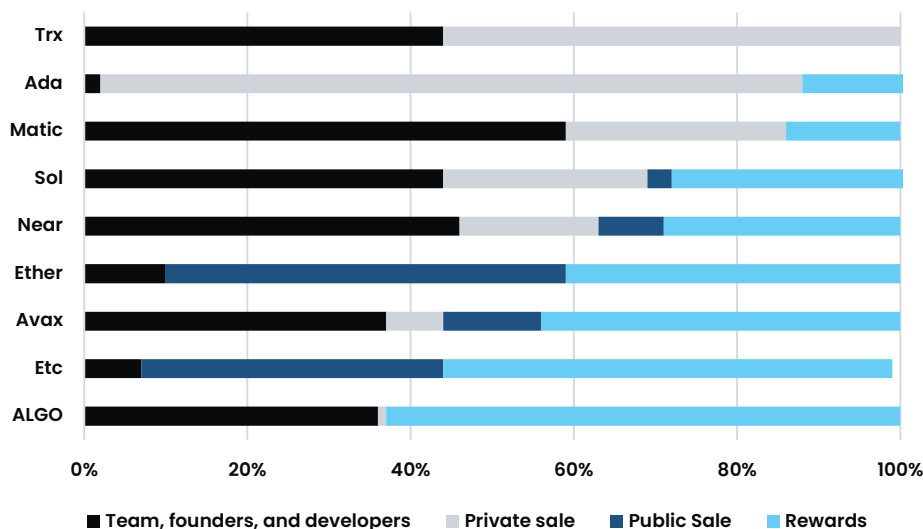
As mentioned in the section for MoE/SoV coins, ownership concentration can be tricky to measure with precision. There is no easy way to verify the identity behind the addresses which hold coins, and thus just looking at the major holders on-chain doesn't provide a reliable picture (the top 50-100 holding addresses could all be controlled by the same entity).



In contrast to the top payment tokens which tend to have existed for a longer time, the top smart contract native tokens, in many cases, still have a large portion of their total supply as vested tokens allocated to team and investors. Additionally, another large portion of the total initial supply tends to be allocated to a foundation (which usually has the outspoken goal of promoting the decentralization and use of the network, but also tends to be a non-decentralized entity itself), or be specifically marked for general future non-consensus participation rewards. As a result, overall, the smart contract native tokens will score lower than the payment tokens in this category. As crypto cycles come and go, planned rewards are distributed, and large holders take profit or capitulate, the ownership concentration will improve, but that can take quite a long time.

In the figure below, we have outlined how the initial distribution of newly issued coins until 2027 will be divided by recipient.

**Figure 7 – Distribution of total supply in 2028 by initial recipient.**



Source: K33 Research

## Inter-Blockchain Communication (IBC)

Scaling is perhaps the hottest topic in crypto, and projects take varying paths to enable scaling. Some Layer-1s aim to scale in the base layer by having large blocks and short blocktimes. Others aim to scale in layers as we see with Ethereum's shards and layer-2 solutions. Another approach is to build layer-1 blockchains in such a way that they can communicate with each other without using cumbersome and often vulnerable bridges. The principle behind this approach is that instead of scaling vertically, you can scale horizontally by having specialized blockchains for various purposes. In that way, the blockchains can be purpose-built and not have the problem of inheriting the unfavourable attributes from the layer-1, which you do when scaling vertically. This type of horizontal scaling protocols are called Inter-Blockchain Communication (IBC) protocols.

K33-Vinter Quality Index – IBC								
	Token	Category	Persistent Network Effects	Use	Regulatory Risk	Ecosystem size and liveness	Inflation schedule and ownership concentration	Score
9	DOT	IBC	1	2	4	2	3	2.17
16	ATOM	IBC	2	2	4	4	3	2.83
20	Toncoin	IBC	1	1	4	1	3	1.83
28	Quant	IBC	1	1	4	1	3	1.83

The scaling solution is really just a protocol that restricts the blockchains in some sense such that they can talk to each other. In true crypto sense, however, these protocols have force-fed tokens into them with mechanics that hopefully will capture value if the protocol becomes popular.

All the IBC tokens get a reduction in score due to the highly uncertain, and in some cases not yet developed, value capture mechanism of the tokens. Quant and Toncoin are out, as nothing is really happening in those ecosystems. We have marginally decided to include ATOM in the index, while DOT is left out. DOT's value capture mechanism is more clear than ATOM's, but we simply see no evidence that the popularity that would be needed to trigger DOT's value capture mechanism is going to happen.

Atom, however, is the native token for the Cosmos Hub in the Cosmos ecosystem. Unlike Polkadot, you can build in the Cosmos Ecosystem without ever touching Atom. The IBC protocol, the foundation for the Cosmos ecosystem, has become much more popular than Polkadot's parachains. With the planned expansions for the utility of the Atom token, there is a possibility to capture some value in the vibrant Cosmos ecosystem.

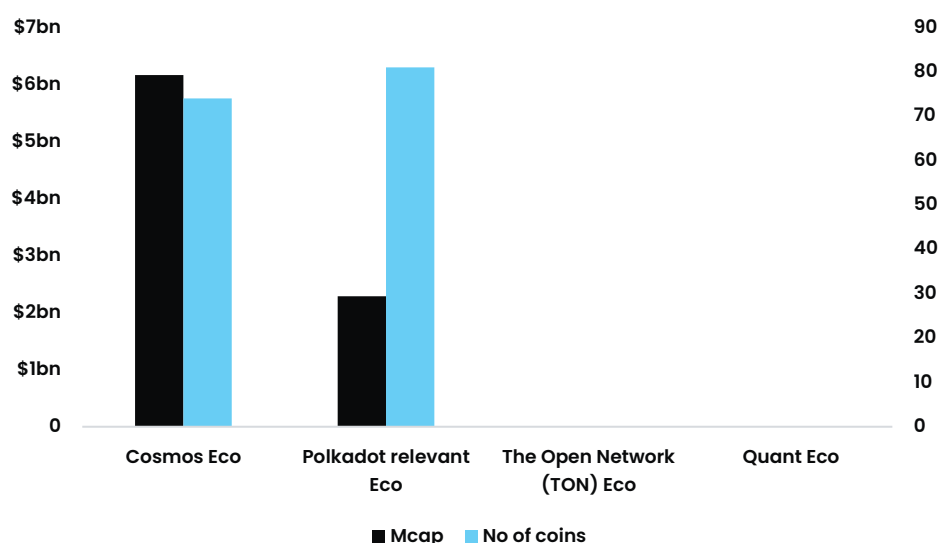
### Persistent Network Effects

The score on persistent network effects for the evaluated tokens and the IBC ecosystems they are associated with is not necessarily the same. For DOT, the two are pretty much the same, while in the ATOM case, the Cosmos Ecosystem can be wildly successful without the ATOM token becoming popular. We believe the Cosmos Ecosystem has a higher chance of survival than Polkadot, but given that Atom does not necessarily become popular with Cosmos.

### Ecosystem Size and Liveness

A natural starting point for evaluating the different IBC protocols' ecosystem size is to look at the market capitalization and number of tokens within the ecosystem. There is a similar number of tokens in the Cosmos and Polkadot Ecosystems. Still, the market capitalization of the coins in the Cosmos Ecosystem is three times that of Polkadot (excluding ATOM and DOT). Going back to pre- Terra collapse, these statistics would be way more skewed.

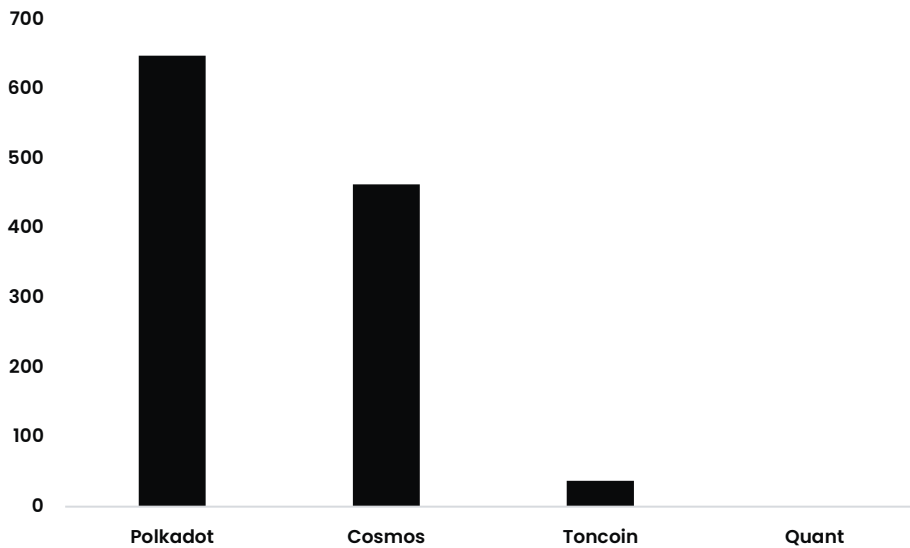
Figure 8 – Ecosystem size for IBC protocols.



Source: K33 Research and CoinGecko

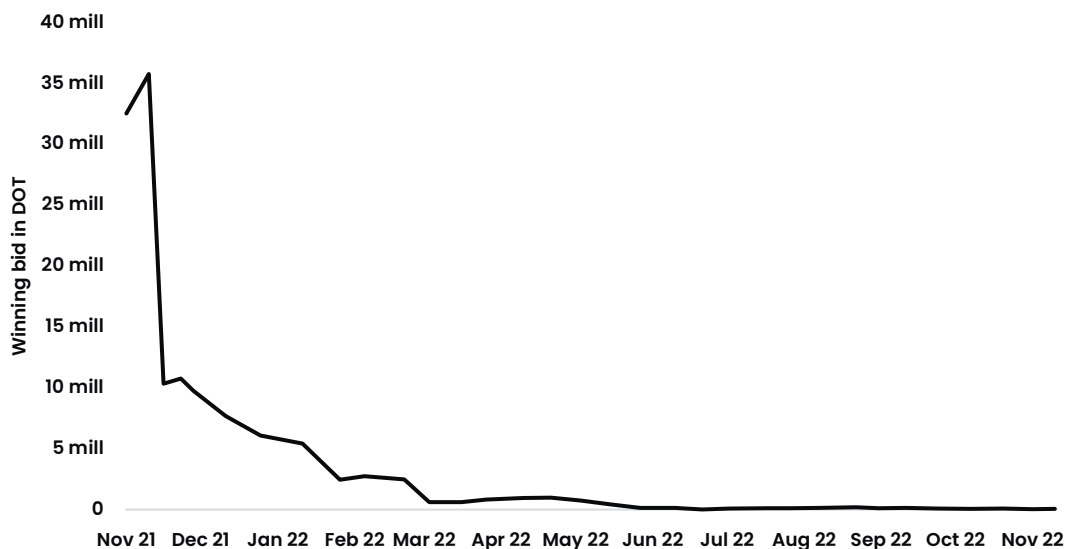
Market caps are not necessarily the best metric to measure an IBC ecosystem's liveness. In terms of weekly active developers, Polkadot has more developers compared to Cosmos, according to the statistics. Isolated, this indicates a better "liveness" for Polkadot than Cosmos.

Figure 9 – Weekly active developers. Date: Feb 1, 2023

Source: [Artemis](#)

There is, however, something that feels a bit off in concluding that Polkadot has more vibrancy than the Cosmos Ecosystem. The Cosmos IBC stack is popular among new blockchain projects, and potentially groundbreaking new protocol Celestia is built on the Cosmos stack. At the same time, it feels like the buzz around Polkadot is fully gone. Parachain auctions on Polkadot back up that feeling. While you needed DOTs in the hundreds of millions of dollars to secure a parachain slot one year ago, they are now virtually free. In a world where money talks, people are unwilling to bind up a lot of capital to develop on Polkadot at the moment.

Figure 10 – Parachain auctions winning bid on Polkadot.



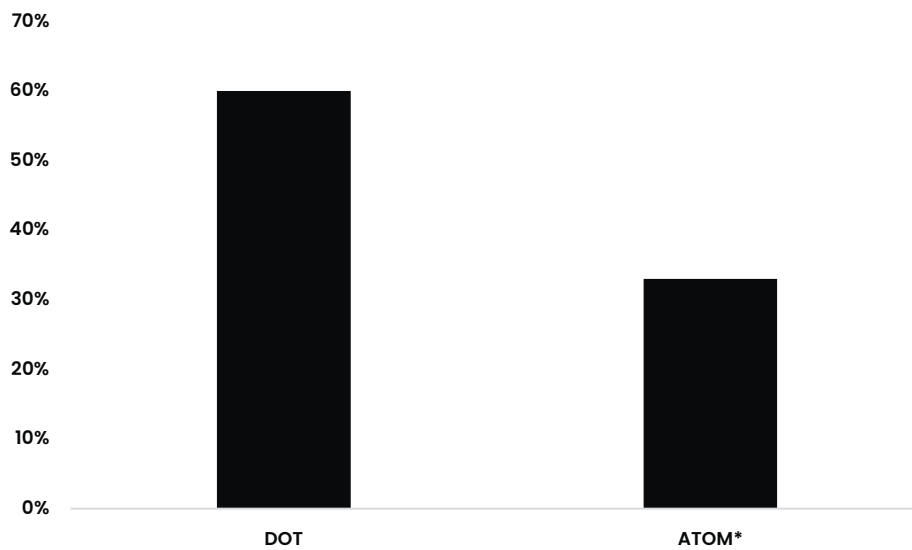
Source: K33 Research and Polkadot

### Regulatory Risk

In terms of regulatory risk, there's no good argument IBC tokens should differ meaningfully from the smart contract blockchain native tokens. All tokens are therefore scored as a 4 on this pillar.

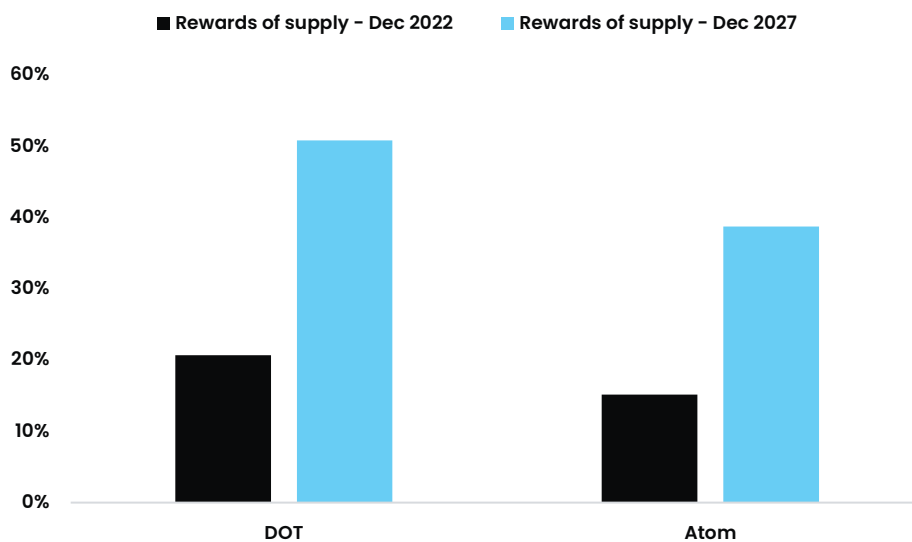
### Inflation and Ownership Concentration

In terms of inflation and ownership concentration, we don't believe there is much separating DOT and ATOM. With the current rules, there is more outstanding issuance of DOT. But the proposal for ATOM 2.0, which will likely go through at one point, will significantly increase the future issuance of ATOM. Putting much emphasis on the currently lower inflation schedule for Atom does, therefore, not make much sense.

**Figure 11 – Remaining issuance of total supply in 2028.**

Source: K33 Research. \*The supply schedule is expected to be changed via governance voting.

As with most of the tokens, a huge percentage of the supply is allocated to founders, team members, and investors. The current ownership concentration of both DOT and Atom is likely highly concentrated. Currently, 80 percent of the supply is allocations to teams, founders, and investors. As time moves on, this share will get diluted, but at the end of 2027, 50% of DOT will still be pre-allocated, and the same number for Atom will be above 60%.






**Figure 12 – Rewards as percentage of supply at the end of 2022 compared to end of 2027.**

Source: K33 Research

## Other categories

The remaining five tokens are placed in the Money Infrastructure, DeFi, and Specialized Utility categories. The pillar scores on these tokens are shown in the table below. The reasoning behind the scores is discussed following the table.

K33-Vinter Quality Index – Other Categories

	Token	Category	Persistent Network Effects	Use	Regulatory Risk	Ecosystem size and liveness	Inflation schedule and ownership concentration	Score
4	 XRP	Money Infrastructure	2	1	1	1	1	1.33
14	 UNI	DeFi	3	5	3	4	3	3.5
22	 Lumen	Money Infrastructure	1	1	1	2	3	1.5
27	 Lido DAO Token	DeFi	3	3	4	3	3	3.17
29	 FIL	Specialized Utility	1	1	4	1	3	1.83

To avoid too much repetition, we will shortly state why we have excluded XRP, Lumen, and Filecoin here.

### Excluded tokens

XRP and Lumen are both tokens associated with what we call money infrastructure. The thought is for their networks to act as a bridge between regular traditional finance companies who are at the start and endpoint of a transaction. First and foremost, they have been around for a long time, and have not yet been used for any of this. Secondly, it's far from obvious why these coins should be any better than bitcoin in doing this. In fact, they are worse because of the lower liquidity between the tokens and fiat.

Filecoin is a network for keeping/hosting data on a blockchain without relying on a trusted intermediary like Google or Amazon. Filecoin has also been around for a long time, and there is no evidence at all of people actually using it for anything sensible or that use is increasing. For that reason, we see no reason to include Filecoin in the index for the time being.

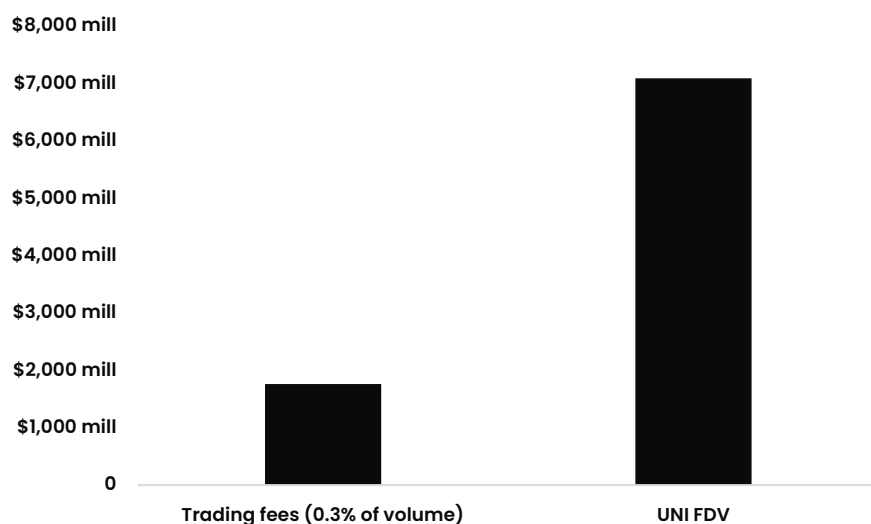
### Included tokens

We have included two DeFi tokens in the index, UNI and Lido DAO token. These tokens are somewhat easier to evaluate than the more general payment and smart contract tokens. Uni and Lido are much closer to classic equities.

UNI, the token of the Uniswap DEX protocol, is mainly a governance token. The current business model of Uniswap is a 0.3% fee on trades, where all fees currently go to liquidity providers. Both these parameters can be changed by governance votes, so that dividends are paid to UNI holders. The supply is also fixed, and a majority vote would be needed to issue more UNI, much like voting by shareholders in a company.

The combined sum of fees over the last year on Uniswap is close to \$1.8 billion. Some of this would always have to be given to liquidity providers to incentivize them, but as the fully diluted market cap of UNI stands at \$6 billion, it's not implausible that the UNI token can create a cash flow defending or surpassing the current market cap in the future.

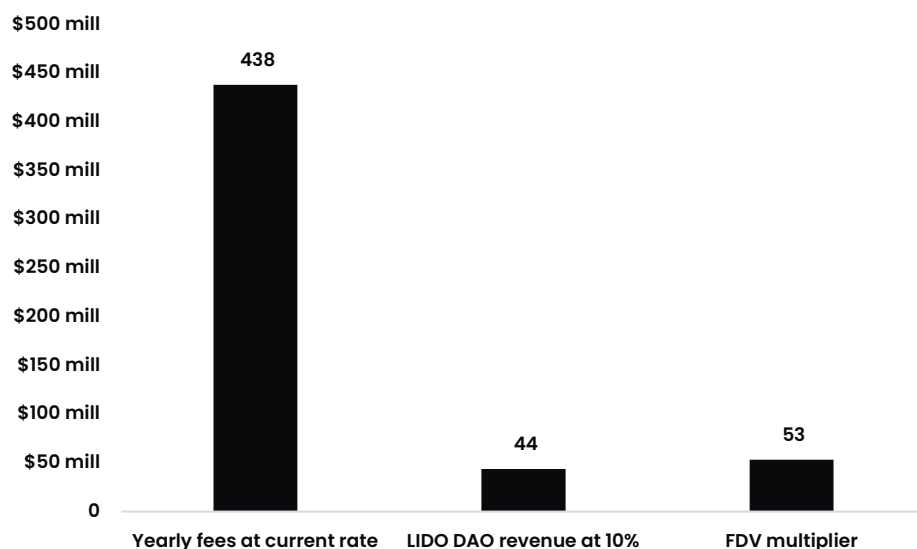
Figure 13 – Key statistics for the Uniswap protocol



Source: K33 Research

Lido Dao Token is the governance and protocol token for the Lido liquid staking protocols. Its function is very much the same as UNI. Where UNI is not yet taking any of the protocol revenue, 10% of the Lido protocol's revenue already goes to Lido DAO Token owners. At the current TVL and staking rates, combined with the 10% cut of the LIDO DAO, the yearly fully diluted value to yearly revenue ratio is slightly above 50. This metric can be compared to a price/earnings ratio from stocks. 50 would be extremely high (negative) in the world of stocks. For us, it shows that staking in the protocol would have to grow in the future and/or the LIDO DAO cut would have to be raised. Especially the first one is within the realm of realistic possibilities, and we, therefore, assess the risk of permanent financial loss to be lower than what would be needed for exclusion from the index.

**Figure 14 – Key statistics for the Lido Protocol**



Source: K33 Research