DELPHI DIGITAL

Exchange Tokens Thematic Insights





Table of Contents



Executive Summary	3
Performance	4
Correlation & Beta	5
Token Economic Characteristics	6
Token Burn Comparison	7
Token Burn - BNB & LEO	8
Token Burn - HT & KCS Token Burn - KNC	9
Discounted Trading Fee Comparison	11
Governance	12

Yield From Trading Fees	13
Leader Commentary	14
Disclosures	15

Analysts





Medio Demarco medio@delphidigital.io



Kevin Kelly, CFA kevin@delphidigital.io



Paul Burlage paul@delphidigital.io

Executive Summary



Our team assesses tokens across a variety of metrics, but two that we always focus heavily on are 1) adoption of the network/application and 2) an economic structure that can enable it to accrue value as a result of said adoption. Perhaps no other sector of alternative tokens better fit these guidelines currently than exchange tokens.

These digital assets can offer tangible benefits to their holders today whether they be in the form of discounted trading fees, governance, a yield from exchange fees and/or a token buyback and burn mechanism.

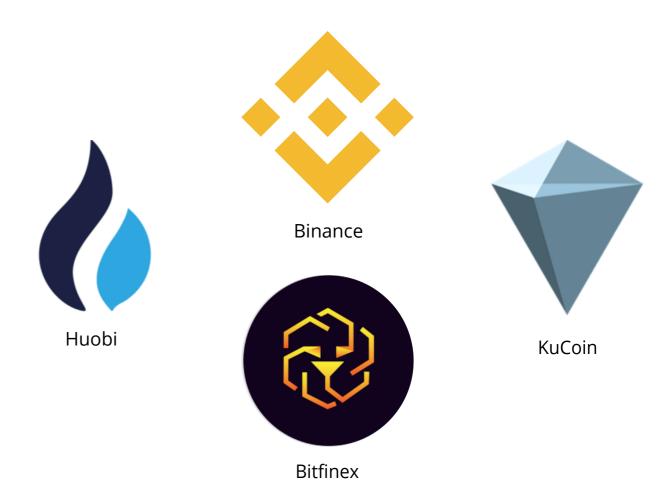
We'll begin this report by assessing how each has traded YTD and their correlation to Bitcoin.

Afterward, we will categorize each by the characteristics of their token economics and analyze the associated data. Token burns will be the main focus of this analysis based on the fact they are the primary fundamental force behind a potential valuation for most of these tokens.

Decentralized Exchange Tokens:



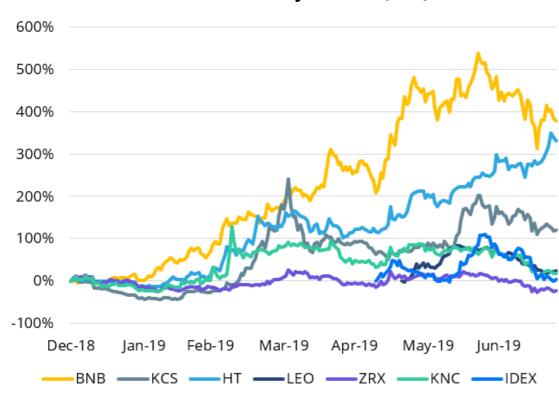
Centralized Exchange Tokens:



Performance



Combined YTD Performance (USD)



Centralized exchange tokens have drastically outperformed their decentralized peers this year, led by Binance Coin's (BNB) 380% gain year-to-date. Huobi Token (HT) is a close second, however, rising 330% over the same period. KuCoin Shares (KCS) had an explosive second half of Q1, more than quadrupling in price as it surged from sub-\$0.40 to roughly \$2.00 in a matter of weeks. The reversal in KCS has been quite drastic since, giving back a substantial portion of those gains, though it still boasts a 120% return so far in 2019. Bitfinex's native token, LEO, has only been trading for a couple months, but rewarded early investors handsomely through the end of June. However, the overhang from regulatory uncertainty has weighed on price the last few weeks.

On the other hand, decentralized exchange tokens have lagged Bitcoin and their centralized peers since the beginning of the year. 0x's native token, ZRX, has fallen almost 25% year-to-date while Kyber Network Crystal (KNC) has only gained 18%. IDEX's native token also has a limited trading history, but has followed its DEX peers lower since the market's recent peak at the end of June. Notably, all three are trading near oversold levels as measured by their 14-day relative strength index (RSI).

CEX Token Performance YTD Relative to BTC (in USD)



DEX Token Performance YTD Relative to BTC (in USD)



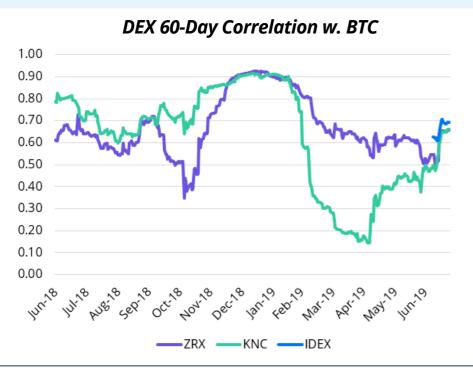
DEX 14-Day RSI

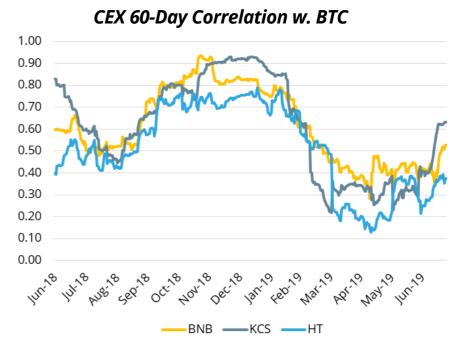


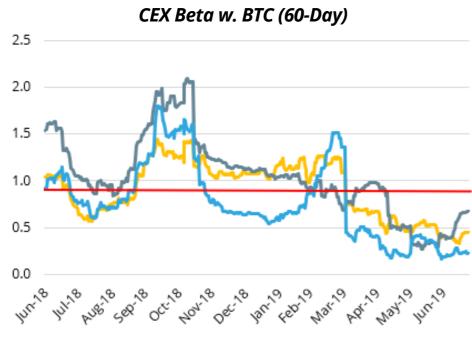
Correlation & Beta

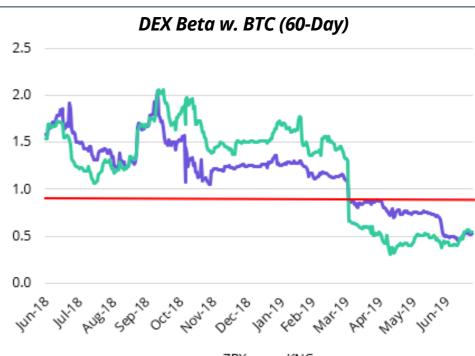


Interestingly, the volatility of both centralized and decentralized exchange tokens relative to Bitcoin has fallen significantly over the last 6-9 months. The average 60-day beta of BNB, KCS, and HT to BTC was 1.02, 1.35, and 1.01 in the second half of 2018. However, over the last six months those averages have dropped to 0.77, 0.73, and 0.55, respectively. Similarly, the average 60-day beta of ZRX and KNC was 1.43 and 1.52 in the latter half of 2018. The average over the last 6 months has dropped to roughly 0.9 for both and currently sit just above 0.5. The correlation between both centralized and decentralized exchanges with Bitcoin have fallen as well over the same period, largely driven by BTC's parabolic price run up.









Token Economic Characteristics

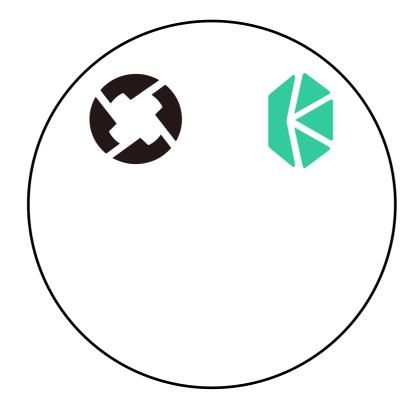


While the underlying economics vary by token, they largely fall into 4 distinct categories - 1) governance, 2) discounted trading fees on the exchange for token holders, 3) a token buyback and burn mechanism and 4) revenue sharing from exchange trading fees.

To the right, we've categorized each of the tokens by their economic characteristics. Over the following slides we'll dive into each category further in order to compare and contrast the tokens.

We'll start with, and place an emphasis on, token burns due to the fact they are the primary fundamental force behind valuing most of these tokens.

Governance



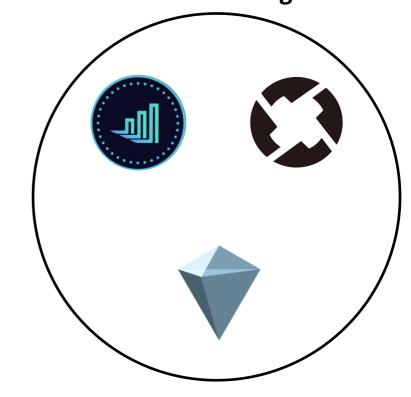
Token Buyback & Burn



Discount Trading Fees



Yield From Trading Fees

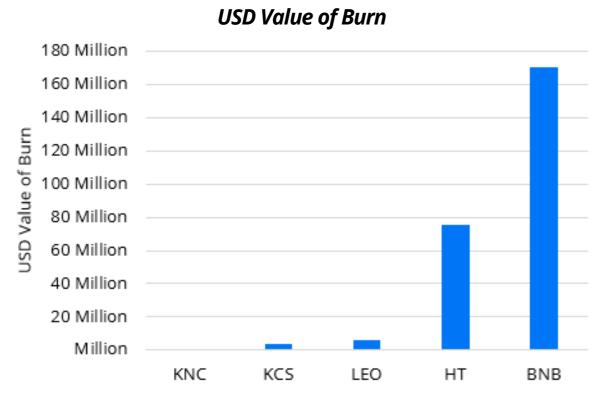


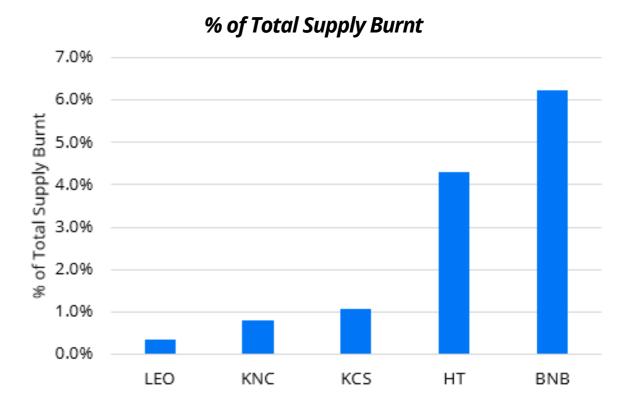
Token Burn Comparison





Given the trading volume these exchanges handle, the associated revenues have resulted in significant cash flows set aside for token burns in some cases. The clear standouts below are Binance and Huobi, whose token burns have equated to \$170m and \$75m respectively. In the chart to the bottom right, we can see the amount of tokens burned relative to their starting total supply. It's important to emphasize, however, that the time frames for burning vary by exchange. For example, Binance started burning BNB as far back as October 2017, while Bitfinex only recently started burning LEO tokens in June of this year. On the following slides we'll dive into the mechanics behind each token burn individually.





Data as of July 22, 2019

*Calculated using daily average price of token on burn date

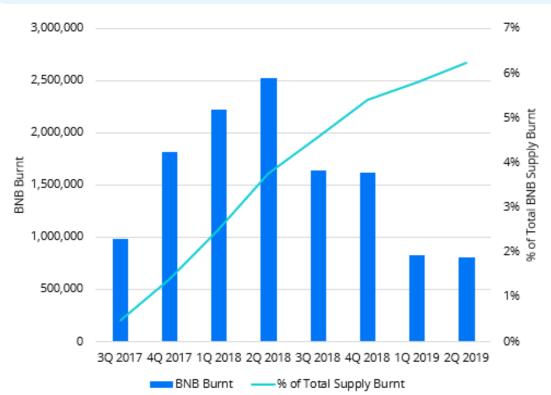
Token Burn - BNB & LEO





Burn Criteria:

- Burn Start Date: October 18th, 2017
- Frequency: Quarterly
- Proceeds: 20% of profits used to burn BNB tokens (not via open-market buybacks)
- Goal: Burn half (100 million) of the total supply of BNB tokens (200 million).

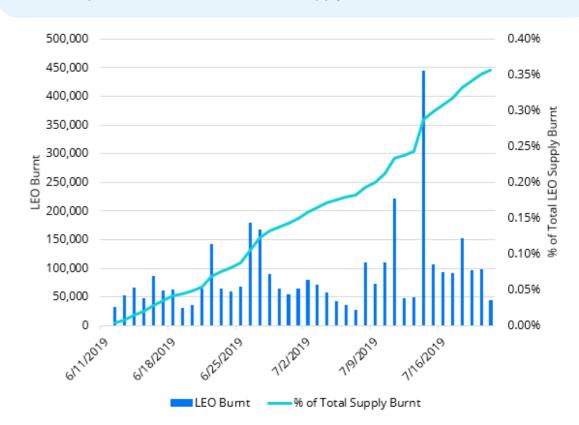




Bitfinex - LEO

Burn Criteria:

- Burn Start Date: June 12th, 2019
- **Time Period:** Every 3 hours, LEO tokens are bought back from the market and burned.
- **Proceeds:** 27% of gross revenue from iFinex, the parent company of Bitfinex. In addition, 95% of recovered net funds from Crypto Capital and at least 80% of recovered net funds from Bitfinex hack.
- Goal: Repurchase and burn the entire supply of LEO tokens (1 billion).



Token Burn - HT & KCS

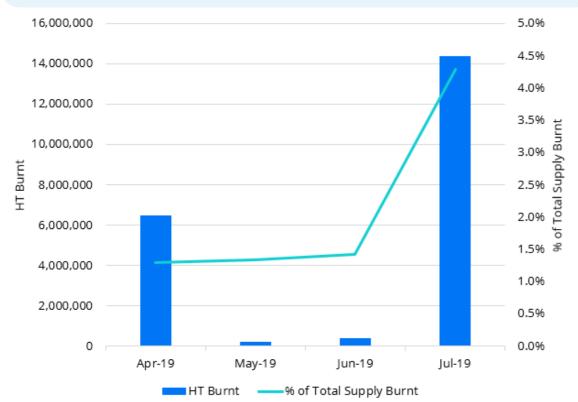




Huobi - HT

Burn Criteria:

- Burn Start Date: April 15th, 2019
- **Frequency:** Quarterly but may switch to monthly/daily burns in the future; Smaller & more frequent burns shown below related to <u>Fasttrack voting</u> program
- Proceeds: 20% of revenue; Moving forward revenues from the HT Tiered Fee deduction may be used for burns instead
- Goal: Unable to confirm

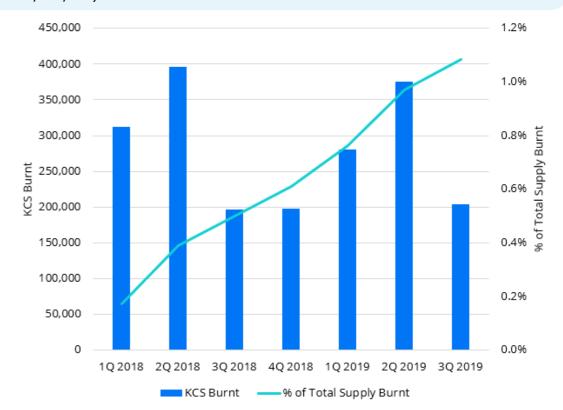




KuCoin - KCS

Burn Criteria:

- Burn Start Date: April 8th, 2018
- Frequency: Quarterly; During the KCS Temporary Buy Back & Burn Plan, there will also be a weekly burn that will run from July 1, 2019 through Q3 2019 (Q3 2019 numbers below reflect the temporary weekly burn plan in July).
- **Proceeds:** 10% of profits
- **Goal:** Repurchase and burn until 100 million KCS are destroyed (total supply is 181,043,095)



Token Burn - KNC

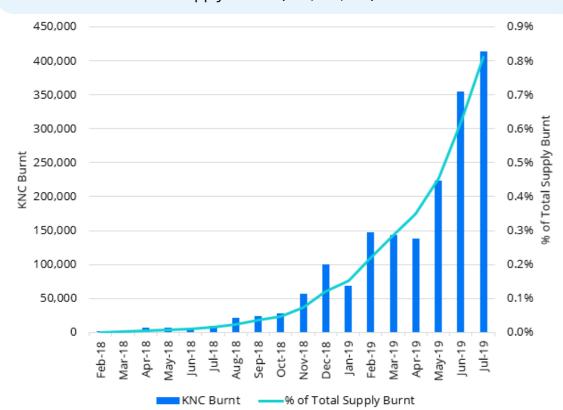




Kyber Network - KNC

Burn Criteria:

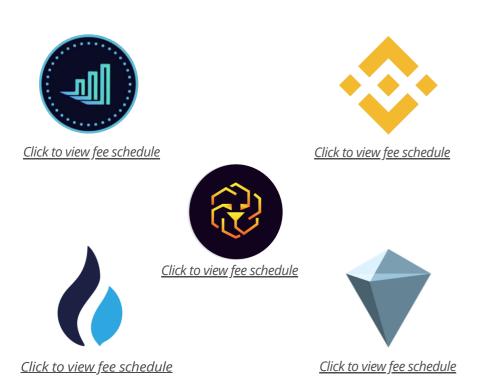
- Burn Start Date: February 9th, 2018
- Frequency: Weekly
- **Proceeds:** A reserve fee of 0.25% is collected on each trade and used to burn an equivalent amount of KNC. When the fee sharing program is taken into account, effectively only 0.175% of a trade's value is burned.
- Goal: Burn the entire supply of KNC (215,625,350)



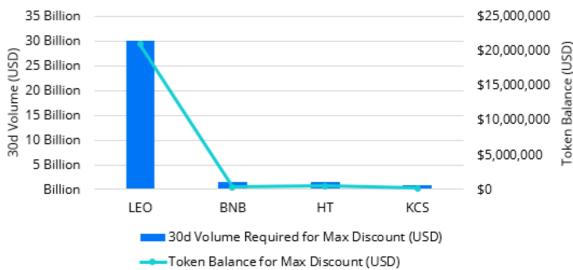
Full Report & Economic Model
Available for Delphi Institutional
Members

Discounted Trading Fee Comparison



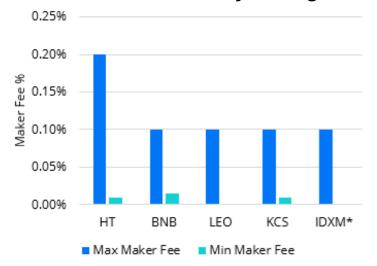


Trading Volume & Token Balance Required for Max Discount



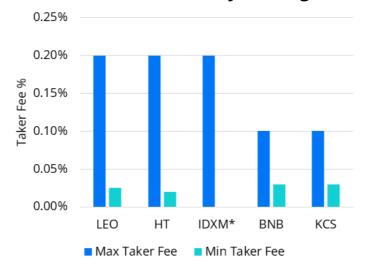
Token	30d Volume Required for Max Discount (USD)	Token Balance for Max Discount (USD)
LEO	\$30,000,000	\$21,000,000
BNB	\$1,560,750,000	\$336,820
HT	\$1,560,750,000	\$478,000
KCS	\$957,260,000	\$189,000

Max & Min Maker Fee by Exchange



Token	Max Maker Fee	Min Maker Fee
HT	0.20%	0.0098%
BNB	0.10%	0.0150%
LEO	0.10%	0.0000%
KCS	0.10%	0.0100%
IDXM*	0.10%	0.0000%

Max & Min Taker Fee by Exchange



Token	Max Taker Fee	Min Taker Fee
LEO	0.20%	0.0250%
HT	0.20%	0.0195%
IDXM*	0.20%	0.0000%
BNB	0.10%	0.0300%
KCS	0.10%	0.0300%

Discount for Paying Fees in Token

Token	Y/N	% Discount
HT	Yes	25-35%
BNB	Yes	25%
LEO	No	_
KCS	No	-
IDEX	No	_

Governance





Kyber - KNC

- Kyber Network plans to transition into a DAO over the course of 2019.
- In March 2019, Kyber held its first voting exercise through the Aragon platform to decide if a community grant program should be established. There were 60 voters that participated, accounting for 0.76% of the circulating supply. The vote passed and a 17,000 KNC grant was created as a result, allowing any community member to submit a proposal with a fund request for a portion or full amount of the grant.
- On June 10, the development team announced that their second experiment will be running a test DAO on DAOstack's Alchemy Platform. From June 28th through July 17th, there were a total of 48 votes held on the platform, with 10 passing. To view the voting history click <u>here</u>.
- It's also important to emphasize the impact that KNC's token burn will have on governance. As more KNC is burned over time, and total supply falls, the voting power of each remaining token will increase.



0x - ZRX

- ZRX is intended to drive a binding on-chain governance system that allows ZRX holders to execute upgrades to the 0x protocol.
- On February 25th, the ZRX community completed its first process on ZEIP-23 with 5,061,033 total loosely coupled recorded votes. There are currently 2 proposals in the voting process (click here to view).
- In the current token economic iteration, the vast majority of trading addresses do not own any ZRX tokens as ZRX users have weak governance incentives (small vote impact) and accountability (small financial investment). The goal is for token distribution to converge around liquidity to the providers.
- In ZEIP-32 network economics, 0x plans to encourage ZRX ownership among market makers as they have a stronger financial interest in 0x future adoption (further explained in the token yield section).
- The new proposal involves an ecosystem fee based on trading activity to supply a community treasury, which will eventually be governed by a DAO
- Staked ZRX tokens will have a 1:1 vote power, while tokens delegated to market makers will have half this power.

Yield From Trading Fee





IDEX - IDEX

- IDEX token (f.k.a. AURA) is the exchange's primary token and is used for staking. It allows users to run specialized nodes that execute or manage specific functions within the exchange's decentralized infrastructure. In return for staking, users earn a portion of exchange trading fees broken out into 3 distinct tiers.
- Currently, 25% of the fees go to tier 3 stakers but over time it will transition to stakers receiving 100% of exchange fees. The exact balance of staking incentives between the tiers is still being determined as the development team assesses how to best reach their security goals.
- Since January 11th, stakers have earned a total of 980 ETH worth ~\$210k based on current prices.



KuCoin - KCS

- 50% of all trading fees from KuCoin are used to buy KCS from the market which are then redistributed to KCS holders who hold at least 6 KCS.
- Based on current volume levels, holding 6 KCS would return 4.08 KCS over the course of a year. This is equivalent to a 68% ROI.
- To view the KCS reward calculator, click <u>here</u>.



0x - ZRX

- If ZEIP-32 is implemented, there will be an ecosystem fee on the taker side of each 0x trade. The fee will be denominated in ETH and pegged to the gas fee takers pay for inclusion of their transaction in blocks.
- Fee revenues are collected into a pool over a predefined epoch and allocated to 0x market makers as liquidity rebates and a community treasury.
- The rebate scheme is a function of the relative amount of a) liquidity provided and b) the amount of ZRX staked.
- The rebate function involves a parameter, α , that weights the value of liquidity provided and ZRX stake. For example, with α =1, the fee reward is only based on ZRX stake size and token-holders are effectively collecting rent. With α =0, the liquidity reward is solely based on liquidity contribution, and market makers have no financial incentive to stake ZRX.

Leader Commentary





Below, we've included exclusive commentary regarding exchange tokens from leaders in the space. We asked - "What makes your token unique relative to other exchange tokens?"



Wei Zhou
CFO at Binance

"As the pioneer of exchange tokens, BNB has evolved from having a single use case for trading fee discounts to over hundreds of use cases within and also beyond the Binance exchange. At the same time, with the continued adoption of the Binance Chain and the DEX, BNB will continue to evolve together with the decentralized community and be one of the most important ecosystem tokens in our industry. In terms of uniqueness, BNB is the only one with its own blockchain right now and sub second transaction times."



<u>Loi Luu</u> CEO at Kyber

"KNC was carefully designed to achieve the best combination of utility, transparency, ease of use, and capturing network value. End users are not required to hold KNC for token swaps, providing a frictionless experience that aids adoption. Instead, KNC is used to incentivize integrated projects to increase network volume. Moreover, KNC has a deflationary model, with supply getting reduced (i.e. burned) over time - as volume increases, so does the amount of KNC burned. This happens entirely on smart contracts and can be verified on the Ethereum blockchain. KNC will also play an important role in KyberDAO governance in the future. Collectively, these activities allow the KNC token to contribute to the growth of Kyber and its community."



Alex Wearn
CEO at IDEX

"The IDEX staking token is both a critical part of the security model of our layer 2 solution as well as a perfect tool for aligning incentives of market makers, traders, and node operators. The more you trade, the more IDEX tokens you earn. The more fees the platform collects from trading, the more node operators earn and the more secure the network becomes. This creates a virtuous cycle where all participants are moving towards the same goal of making IDEX the most secure, liquid, and high-volume trading platform."

Disclosures



The Research Team may own the tokens represented in this report, and as such this should be seen as a disclosure of any potential conflict of interest. Anyone can contact Delphi Digital for full token disclosures by team member at Team@DelphiDigital.io. This report belongs to Delphi Digital, and represents the opinions of the Research Team.

Delphi Digital is not a FINRA registered broker-dealer or investment adviser and does not provide investment banking services. This report is not investment advice, it is strictly informational. Do not trade or invest in any tokens, companies or entities based solely upon this information. Any investment involves substantial risks, including, but not limited to, pricing volatility, inadequate liquidity, and the potential complete loss of principal. Investors should conduct independent due diligence, with assistance from professional financial, legal and tax experts, on topics discussed in this document and develop a stand-alone judgment of the relevant markets prior to making any investment decision.

Delphi Digital does not receive compensation from the companies, entities, or protocols they write about. The only fees Delphi Digital earns is through paying subscribers. Compensation is not received on any basis contingent upon communicating a positive opinion in this report. The authors were not hired by the covered entity to prepare this report. Delphi Digital did not receive compensation from the entities covered in this report for non-report services, such as presenting at author sponsored investor conferences, distributing press releases or other ancillary services. The entities covered in this report have not previously paid the author in cash or in stock for any research reports or other services. The covered entities in this report are not required to engage with Delphi Digital.

The Research Team has obtained all information herein from sources they believe to be accurate and reliable. However, such information is presented "as is," without warranty of any kind – whether expressed or implied. All market prices, data and other information are not warranted as to completeness or accuracy, are based upon selected public market data, reflect prevailing conditions, and the Research Team's views as of this date, all of which are accordingly subject to change without notice. Delphi Digital has no obligation to continue offering reports regarding this topic. Reports are prepared as of the date(s) indicated and may become unreliable because of subsequent market or economic circumstances. The graphs, charts and other visual aids are provided for informational purposes only. None of these graphs, charts or visual aids can and of themselves be used to make investment decisions. No representation is made that these will assist any person in making investment decisions and no graph, chart or other visual aid can capture all factors and variables required in making such decisions.

The information contained in this document may include, or incorporate by reference, forward-looking statements, which would include any statements that are not statements of historical fact. No representations or warranties are made as to the accuracy of such forward-looking statements. Any projections, forecasts and estimates contained in this document are necessarily speculative in nature and are based upon certain assumptions. These forward-looking statements may turn out to be wrong and can be affected by inaccurate assumptions or by known or unknown risks, uncertainties and other factors, most of which are beyond control. It can be expected that some or all of such forward-looking assumptions will not materialize or will vary significantly from actual results.



DELPHI DIGITAL

85 Broad Street New York, NY, 10004

www.delphidigital.io