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Coinscious Market Report
by Coinscious Lab

March 4, 2019

Biggest 30d % Gain	Biggest 30d % Gain (Sector)	Biggest 30d % Loss	Biggest 30d % Loss (Sector)
Maker (MKR)	Digital Content	Augur (REP)	Stablecoins
+85.56%	**+37.38%**	**-12.72%**	**-0.14%**

OVERVIEW

Released bi-weekly, this report aims to identify broad trends in the cryptocurrency market. In order to reflect the latest developments in this fast-paced and volatile market, the reports plan to focus on metrics derived from a 30-day rolling window of data, this time from February 2, 2019 to March 3, 2019.

Our universe of analysis includes 50 of some of the most widely used and traded cryptocurrencies, and groups them into sectors that reflect similar utility and valuation models. Through analysis of the recent historical performance of individual cryptocurrencies as well as their sectors, we provide a framework for analysis where investors can identify outperforming cryptocurrencies or sectors by comparing their performance relative to peers.

| Sector	Constituent Coins/Tokens
Digital Cash	BTC, BCH, BSV, LTC, BTG, DOGE, DCR, BCD, DGB
Privacycoins	XMR, DASH, ZEC, XVG
DApp Platforms	ETH, EOS, ADA, NEO, ETC, XEM, XTZ, QTUM, LSK, AE, ZIL, ICX, BTM, ETP
Resources	SC, GNT
Payments and Settlements	XRP, XLM, OMG, NPXS, MKR, PPT
Decentralized Exchanges	BTS, ZRX, WAVES
Digital Content	TRX, ONT, BAT, STEEM
Data and Information	IOTA, VET, LINK, REP
Stablecoin	USDT, TUSD, DAI

ANALYSIS

The performance of major cryptocurrencies over the past month has been good, with 44 out of the 50 cryptocurrencies that we examined up from their values 30 days ago. Bitcoin (BTC), the largest cryptocurrency by market cap, is trading between $3800 and $4000. Despite having surpassed $4000 two weeks ago, giving many hope that this breakout was potentially the start of a new upwards trend, Bitcoin reached and was rejected by the $4250 resistance level. It continues the longstanding sideways trend that began in November last year.

Outside of cryptocurrencies, the S&P 500 has been performing well, up 3.59% from 30 days ago and closing last Friday at $2803.69.

Figure 1 presents the risk versus return trade-off over the past 30 days by plotting mean daily return versus historical daily volatility for various cryptocurrencies.

Figure 1. Plot of mean daily return against historical daily volatility for individual cryptocurrencies from February 2, 2019 to March 3, 2019. Higher returns at a given level of risk, measured through historical daily volatility, indicates a better investment.
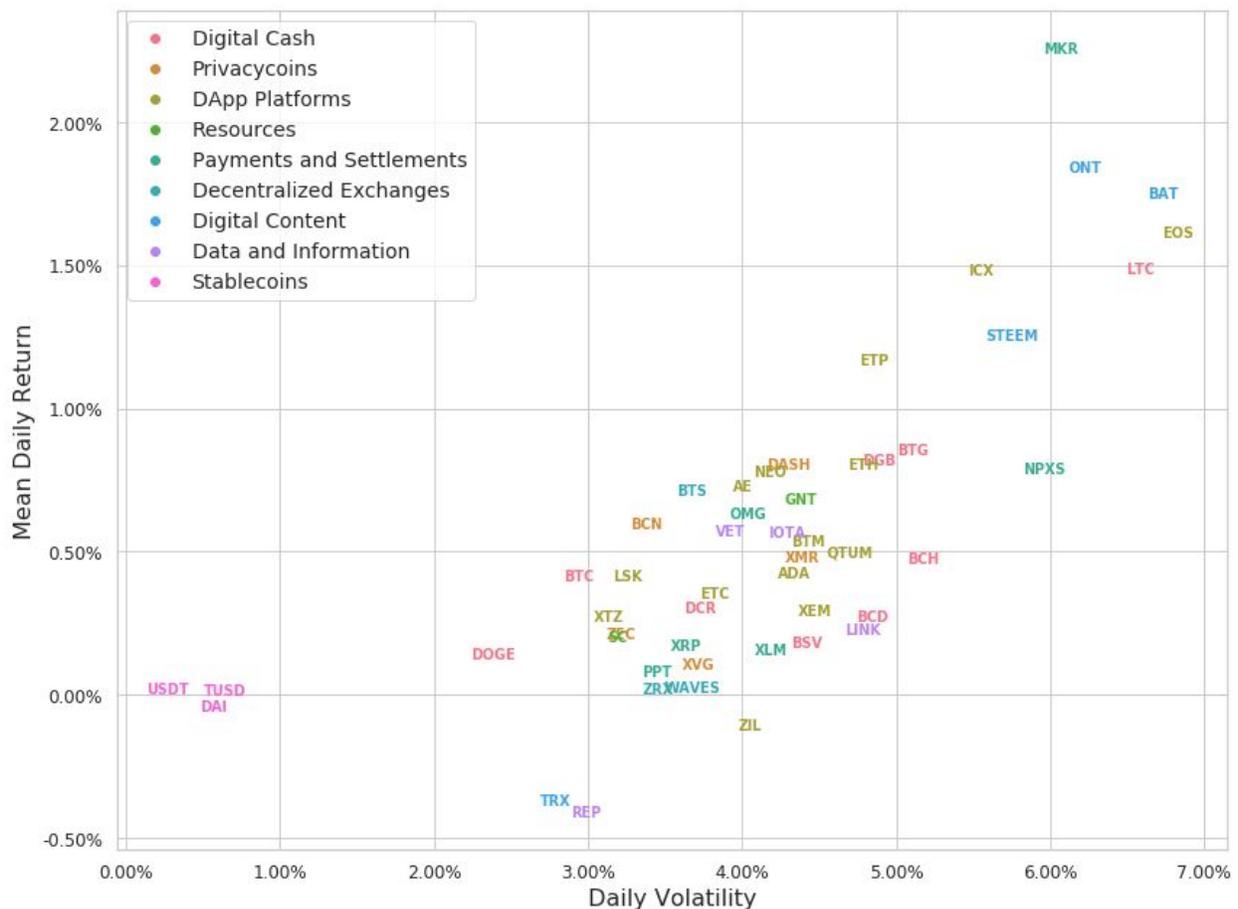
The best performer overall over the past month was Maker (MKR), with a total return of **85.56%**. To understand why Maker have outperformed other cryptocurrencies, we need to briefly explain how Maker works first. (For a full explanation, see their whitepaper.)

MakerDAO is a smart contract platform that backs and stabilizes the value of Dai (DAI), a soft-pegged stablecoin. Unlike most other stablecoins, Dai is collateralized with Ether on the Ethereum blockchain rather than any fiat currency. On this platform, Maker serves multiple purposes:

- Maker is a governance token that allows holders to vote on system settings
- Maker is also a utility token that is burned as a fee when settling a Collateralized Debt Position (CDP), a smart contract whose purpose is to create Dai in exchange for collateral, which it then holds in escrow until the borrowed Dai is returned.
- In the event that CDPs become undercollateralized, likely as a result of market crashes or other adverse events, automatic recapitalization through forced Maker dilution will happen i.e. Maker tokens will be created and sold on the market to raise money to recapitalize the system.

According to an article from MakerDAO's blog in early February, there are 8200 unique addresses with a non-negligible Dai balance and in January, there were more than 7300 active addresses sending or receiving Dai. In addition, they reported 20% monthly growth in both holders and active addresses.

As the only token that can be used to pay the fee associated with creating Dai and using CDPs, an increase in adoption and demand for Dai means that there will also be additional demand for Maker. In addition, Maker is burned to pay the fee, thereby permanently decreasing the total supply of Maker available (unless more is created during forced Maker dilution for recapitalization). If adoption of Dai continues to grow, as MakerDAO has reported, then there are fundamental reasons to expect the price of Maker to continue to increase as well.

The second and third best performing cryptocurrencies were Ontology (ONT) and Basic Attention Token (BAT) with total returns of 63.94% and 58.31% respectively.

Ontology's price surge coincides with an article from their blog posted on February 23 that announced the release of the Ontology Development Platform on Google Cloud Platform Marketplace. This makes Ontology one of the first public blockchains to have a development platform on the leading cloud provider marketplaces: Google Cloud, Amazon Web Services, and Microsoft Azure.

Basic Attention Token also benefited from positive news. An article from their blog posted on February 26 announced a partnership between Brave Software and the Tap Network. Brave Software is a privacy browser combined with a blockchain based digital advertising platform that uses Basic Attention Tokens to reward users for their attention. Tap Network is an advertising and data network that connects brands to reward consumers directly using blockchain. This partnership will allow Brave users to redeem Basic Attention Tokens for real-world rewards from over 250 000 brand partners in the TAP Network.

Augur's reputation token (REP) was the worst performing cryptocurrency, with total losses of 12.72%. This is likely only a pullback from the exuberance that followed the unveiling of the Viel Platform on January 15.

Figure 2a. Cryptocurrencies with the highest total returns from February 2, 2019 to March 3, 2019.

	Total Return
Maker (MKR)	85.56%
Ontology (ONT)	63.94%
Basic Attention Token (BAT)	58.31%
EOS (EOS)	51.80%
ICON (ICX)	48.84%

Figure 2b. Cryptocurrencies with the lowest total returns from February 2, 2019 to March 3, 2019.

	Total Return
Augur (REP)	-12.72%
Tron (TRX)	-11.57%
Zilliqa (ZIL)	-5.51%
Dai (DAI)	-1.35%
Waves (WAVES)	-1.26%

Figure 3 shows various performance measures of the nine sectors as well as that of the S&P 500 for comparison and Figure 4 plots the performance over time of each sector. Performance between the sectors was mostly negative with only data and information having positive total returns. Total returns ranged from -0.14% (stablecoins) to 37.38% (digital content).

Figure 3. Mean daily returns, historical daily volatility, total returns, maximum drawdown, and ex-post Sharpe ratio for each sector from February 2, 2019 to March 3, 2019. Less negative maximum drawdowns and more positive Sharpe ratios are more desirable. The Sharpe ratio is calculated with the 10 year US Treasury bill rate as the annual risk-free rate.

	Mean Daily Returns	Daily Volatility	Total Return	Daily Sharpe Ratio	Max Drawdown
Digital Cash	0.53%	3.54%	15.12%	0.15	8.85%
Privacycoins	0.44%	3.5%	12.00%	0.12	12.25%
DApp Platforms	0.66%	3.79%	19.30%	0.17	12.77%
Resources	0.44%	3.46%	11.99%	0.12	11.04%
Payments and Settlements	0.71%	3.37%	21.66%	0.21	10.53%
Decentralized Exchanges	0.25%	3.1%	6.34%	0.08	8.51%
Digital Content	1.12%	3.36%	37.38%	0.33	4.90%
Data and Information	0.24%	3.37%	5.57%	0.07	10.82%
Stablecoins	0%	0.25%	-0.14%	-0.05	0.61%
S&P 500	0.12%	0.43%	3.59%	0.26	1.16%

Figure 4a. Price performance over time by sectors that had positive returns between February 2, 2019 to March 3, 2019.
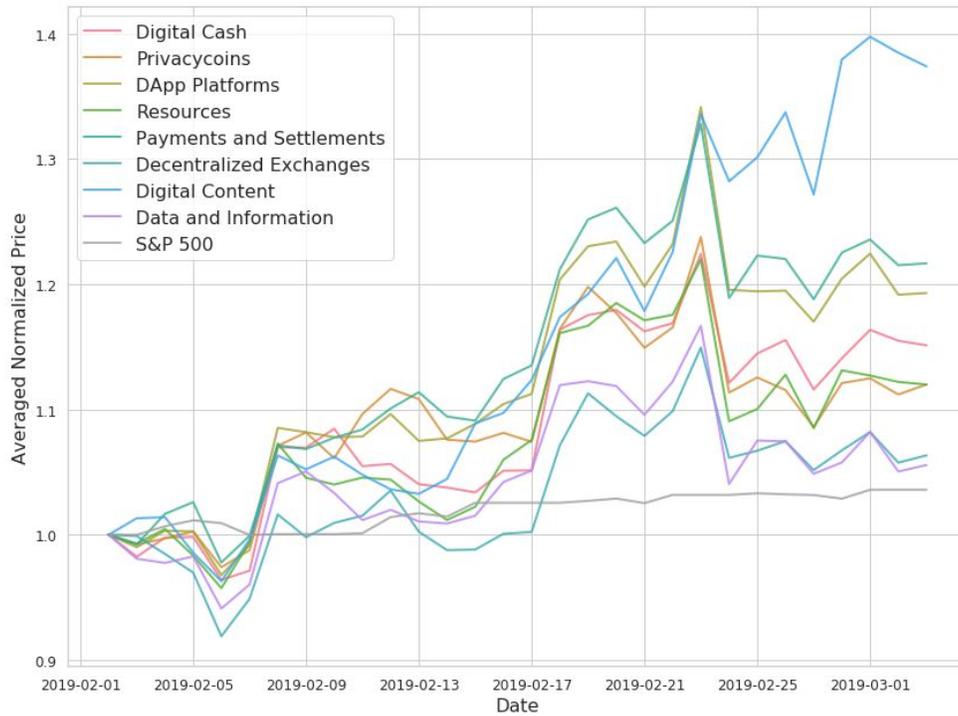

Figure 4b. Price performance over time by sectors that had negative returns between February 2, 2019 to March 3, 2019.
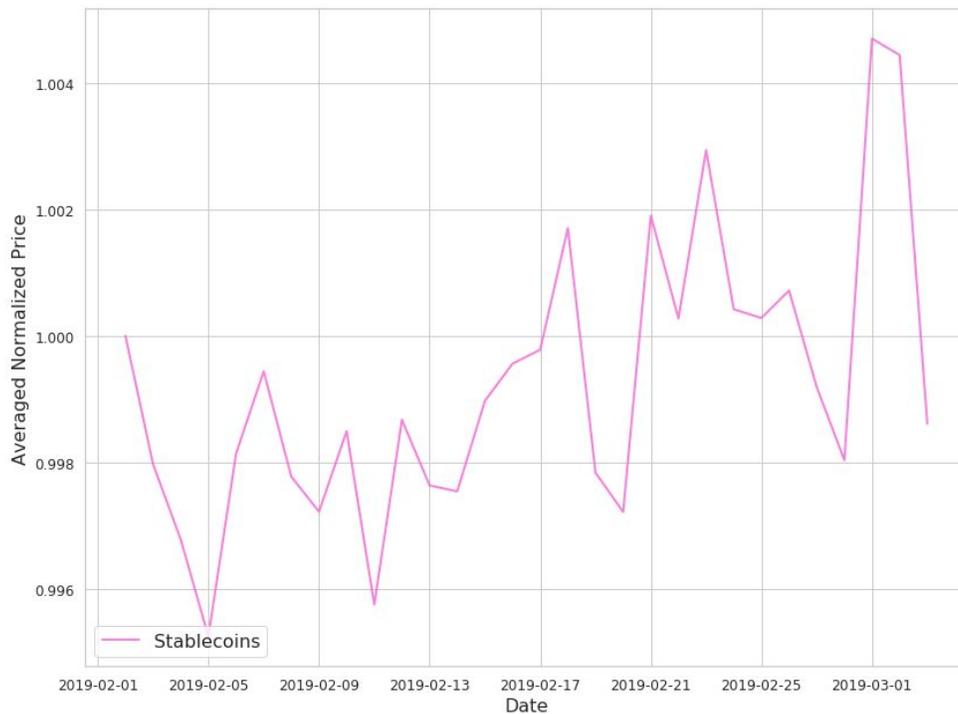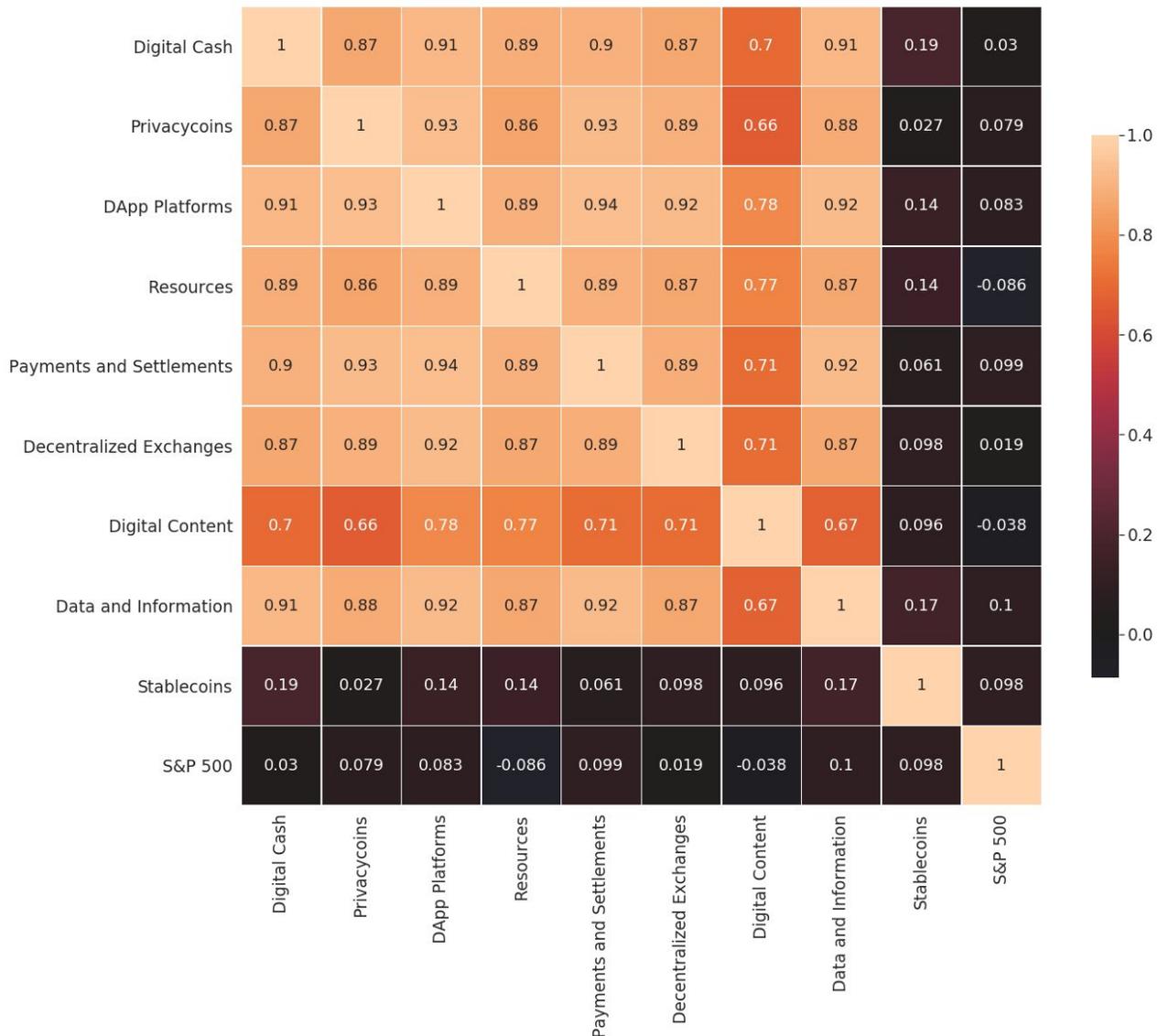
Figure 4 shows the correlation between the daily returns of each sector. Stablecoins had low to moderate positive correlation with other sectors. As shown in Figure 2, stablecoins continued to fulfill their intended purpose well by maintaining low volatility, mean daily returns of 0%, and a near zero total return of -0.14% over the observation period. The S&P 500 also had little correlation with any cryptocurrency sectors. As for the other sectors, they had high positive correlation with each other, ranging from 0.66 to 0.94, almost the same compared to 0.66 to 0.95 from two weeks ago. Digital content, the best performing sector, was the least correlated with the others.

Figure 4. Correlation between daily returns of each sector from February 2, 2019 to March 3, 2019. Correlation ranges between -1 and 1. Correlation close to 1 indicates a more positive relationship between the pair of cryptocurrency returns and correlation close to -1 indicates a more negative linear relationship. Correlation close to 0 indicates no linear relationship.

	Digital Cash	Privacycoins	DApp Platforms	Resources	Payments and Settlements	Decentralized Exchanges	Digital Content	Data and Information	Stablecoins	S&P 500
Digital Cash	1	0.87	0.91	0.89	0.9	0.87	0.7	0.91	0.19	0.03
Privacycoins	0.87	1	0.93	0.86	0.93	0.89	0.66	0.88	0.027	0.079
DApp Platforms	0.91	0.93	1	0.89	0.94	0.92	0.78	0.92	0.14	0.083
Resources	0.89	0.86	0.89	1	0.89	0.87	0.77	0.87	0.14	-0.086
Payments and Settlements	0.9	0.93	0.94	0.89	1	0.89	0.71	0.92	0.061	0.099
Decentralized Exchanges	0.87	0.89	0.92	0.87	0.89	1	0.71	0.87	0.098	0.019
Digital Content	0.7	0.66	0.78	0.77	0.71	0.71	1	0.67	0.096	-0.038
Data and Information	0.91	0.88	0.92	0.87	0.92	0.87	0.67	1	0.17	0.1
Stablecoins	0.19	0.027	0.14	0.14	0.061	0.098	0.096	0.17	1	0.098
S&P 500	0.03	0.079	0.083	-0.086	0.099	0.019	-0.038	0.1	0.098	1

APPENDIX A: Methodology

The daily price data of cryptocurrencies in USD at 4:00 PM EST from February 2, 2019 to March 3, 2019 was used for our calculations.

The prices are the volume weighted average price of the cryptocurrency in USD at 4:00 PM EST each day across all exchanges where Coinscious has data. If there was insufficient good quality data on a cryptocurrency's value in USD, we would instead use the cryptocurrency's value in USDT and apply a conversion rate to turn it to USD. If data was still insufficient, then we would find the volume weighted average price of the cryptocurrency in both BTC and ETH, then converted both into USD, and finally took the mean of those values. The conversion rates we use at a given time are the volume weighted average price of USDT, BTC, or ETH to USD at that specific time across all exchanges where Coinscious has data.

To analyze performance by sector, the prices of constituent cryptocurrencies was normalized by dividing by the price on February 2, 2019, then averaged. When calculating the daily returns using this averaged normalized price, it is equivalent to if each sector was represented as an equally weighted portfolio of its constituent cryptocurrencies formed starting February 2, 2019 and the returns of the portfolio were calculated. Returns used throughout this report refer to simple returns.

Daily closing price data of the S&P 500 index from Yahoo Finance was also used as a proxy to represent the US equity market. The latest 10 year US Treasury bill rate from YCharts was used for calculations involving a risk-free rate.

In subsequent reports, we may update our universe, sectors, methodology, and analysis to reflect new developments.

APPENDIX B: Terminology

Volatility: A measure of the dispersion in the trading price of an instrument over a certain period of time, defined as the standard deviation of an instrument's returns.

Drawdown: A measure of the decline of the trading price of an instrument or investment since the previous peak during a certain period of time. Less negative, less frequent, and shorter drawdowns are more desirable.

Maximum drawdown: The maximum peak to trough decline of the trading price of an instrument or investment over a certain period of time. Less negative maximum drawdowns are more desirable.

Sharpe ratio: A risk adjusted measure of return that describes the reward per unit of risk. The reward is the average excess returns of an investment against a benchmark or risk-free rate of return, and the risk is the standard deviation of the excess returns. A higher Sharpe ratio is better. Ex-ante Sharpe ratio is calculated with expected returns whereas ex-post Sharpe ratio is calculated with realized historical returns.

Correlation: A measure of the linear relationship between two series of random variables, which in the context of finance, can be two series of returns. Correlation ranges between -1 and 1. Correlation close to 1 indicates a more positive relationship between the pair of cryptocurrency returns and correlation close to -1 indicates a more negative linear relationship. Correlation close to 0 indicates no linear relationship.

ABOUT US

Coinscious Inc. builds artificial intelligence and data-driven insights for the cryptocurrency market. Coinscious delivers compelling, informative analytics to the cryptocurrency community and uncovers hidden insights and patterns from the data behind the scenes. Coinscious is focused on helping the cryptocurrency community make informed judgements through its services.

Coinscious was established in 2018 and in Canada, Europe and China. Coinscious uses sophisticated financial engineering and quantitative technologies, such as statistical modeling, machine learning, market structure, and risk management techniques, in order to facilitate the maturation of the cryptocurrency market through various tools and data services.

DATA SERVICES

We provide comprehensive raw **Market Data API** services, including: millisecond level live stream data, order book data, trade history data, blockchain transaction data, and media updates data. These data services enable traders and investment institutions easy access to the massive amounts of information through our platform and API, and removes the need for them to collect all of this data by themselves — a task that is either impossible, or at the very least, expensive and extremely time-consuming.

Through our **Data Analytics API** services, we also offer derivative data services, plus the analysis and evaluation of both specific coins (micro level) and the coin market (macro level) through data mining and deep analytics. This includes: indicators, ratings, correlations, and patterns. The derivative data allows traders to look at information from a wider lens and with greater perspective.

CONTACT US

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