APPENDIX A: Methodology

The daily price data of cryptocurrencies in USD at 4:00 PM EST from January 20, 2019 to February 18, 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 January 20, 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 January 20, 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

To learn more about Coinscious, visit us at: www.coinscious.io

Any questions? Email us at: info@coinscious.io

You can also check us out on social media for in-depth articles, updates, and more. Join in on the conversation by posting a question or comment. We will be sure to respond!

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