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Ken Xuan<sup>AC</sup>

CRYPTO CURRENCY STRATEGY



## Benchmark Crypto Indices Weekly Performance Analysis



### Crypto Currency Strategy



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### Washington & Policy Strategy



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# Research team



**Thomas J. Lee, CFA**  
**Co-Founder, Head of Research**  
*In research: 25 years*

Prior to founding Fundstrat, Mr. Lee was at J.P. Morgan from 1999 to 2014 and served as Chief Equity Strategist from 2007 to 2014. He was top-ranked by Institutional Investor every year since 1998. Previously served as Managing Director at Salomon Smith Barney. Mr. Lee graduated from the undergraduate program at the Wharton School, University of Pennsylvania.



**Sam Doctor**  
**Head of Data Science Research**  
*In research: 18 years*

Head of Data Science Research. Former US Small and Mid Cap Technology Analyst and India Small / Mid Cap Strategist at J.P. Morgan Chase.



**Rob Sluymmer, CFA**  
**Head of Technical Analysis Strategy**  
*In research: 26 years*

Head of Technical Research with over 26 years experience writing technical research at RBC Capital Markets



**L. Thomas Block**  
**Washington and Policy Strategist**  
**Head of JPM policy: 21 years**

Tom had a 21-year career at J.P. Morgan, serving as Global Head of Government Relations. Prior to joining JP Morgan Chase in 1987, he previously worked in Washington and held several positions with members of the House and Senate, serving as Legislative Assistant and Chief of Staff in the House, and Legislative Staff Director in the Senate



**Alex Kern**  
**Research Analyst**  
*In research: 3 years*

Previously a Research Analyst with Digital Currency Group. Prior to that, Alex was a Fintech and Payments Equity Research Associate with Cowen & Co. Alex received his B.A. in History from the University of Pennsylvania in 2014.



**Ken Xuan**  
**Quantitative Analyst**  
*In research: 4 years*

Data scientist with expertise in applied mathematics and statistical analysis. Ken was an operations strategy consultant at West Monroe Partners. Ken received a B.S. degree in Management, Economics from Purdue University in 2013 and an M.S. degree in Operations Research from Columbia University in 2017.



**Kelsey Burhans**  
**Research Analyst**  
*In research: 2 years*

Previously an Equity Research Associate in Specialty Finance at Stephens Inc. Kelsey received her B.A. degree in Chinese Language & Culture, with a concentration in Economics, from Wellesley College in 2017.

Source: Fundstrat, Bloomberg, Factset

# Executive Summary

- Overview
- SIZE: FS Large-cap 10, FS Mid-cap 40, FS small-cap 250
- SECTOR: Commodities
- SECTOR: Platforms
- SECTOR: Exchanges
- SECTOR: Privacy
- SECTOR: Stable coins
- Chartbook: FS Large-cap 10 and FS Mid-cap 40

# Commentary

## Highlighted Moves ([Slide 6](#))...

The overall crypto market price (based on the FS Crypto Agg Index) was up by 0.2% in the past week. YTD, the crypto market is down -68.5%.

## Correlation BTC vs Asset Classes ([Slide 9](#))...

When comparing Bitcoin to other major asset classes (stocks, bonds, hedge funds, oil and gold), Bitcoin has the highest correlation to S&P Risk Parity Index (21.4%) and the lowest correlation to Gold (-16.2%).

- In the past 30D, the notable correlation rise (vs Bitcoin) is Salient Risk Parity Idx (6.6% delta) from 14.9% to 21.4%.
- In the same period, the most notable drop in correlation (vs Bitcoin) is Oil (-2.9% delta) from 19.2% to 16.3%.

## Leadership Ratio Rankings ([Slide 12](#))...

Ranking cryptocurrencies on win-ratio plus upside/downside volatility, we derive our leadership ratio.

- Top 3 tokens are Dogecoin, Waltonchain and Zilliqa.
- Worst 3 tokens are Ethereum Classic, Zcash and Augur.

## Sector Insights ([Slide 13](#))...

5 size indices and 4 sector-based indices outperformed BTC in the past week.

- In the past week, the best performing size index was FS CryptoFX 40 with performance of 0.7%, while the worst performing size index was FS CryptoFX 250 with performance of -3.1%.
- In the past week, the best performing sector index was FS CryptoFX Privacy with performance of 4.0%, while the worst performing sector index was FS CryptoFX Exchange with performance of -1.8%.

## Correlation Indices to BTC ([Slide 9](#))...

We also look at correlation of the sector and size indices to Bitcoin.

- In the past 30D, the most notable rise in correlation (vs Bitcoin) is FS Exchange Index (2.0% delta) from 77.2% to 79.2%.
- In the same period, the most notable drop in correlation (vs Bitcoin) is FS Commodity Index (-0.2% delta) from 99.3% to 99.2%.



# Overview: Where to find these indices

**Figure: The Fundstrat Crypto-currency Indices**  
Fundstrat reference indices.

|                          |  | Market Value |             |                | Tickers                  |                           |                          |                           |
|--------------------------|--|--------------|-------------|----------------|--------------------------|---------------------------|--------------------------|---------------------------|
| Index                    | Description                            | Index Price  | \$ millions | % share crypto | Bloomberg                | Yahoo! Finance            | Trading View             | Financial Times           |
| Sector Indices           |  |              |             |                |                          |                           |                          |                           |
| FS Crypto Commodity      | Likely to be classified as commodities | \$88         | \$128,115   | 62%            | <a href="#">FSTOKCTB</a> | <a href="#">^FSTOKCTB</a> | <a href="#">FSTOKCTB</a> | <a href="#">^FSTOKCTB</a> |
| FS Crypto Platform       | Enables decentralized applications     | 57           | \$33,785    | 16%            | <a href="#">FSTOKPLT</a> | <a href="#">^FSTOKPLT</a> | <a href="#">FSTOKPLT</a> | <a href="#">^FSTOKPLT</a> |
| FS Crypto Privacy        | Tokens with anonymity features         | 53           | \$4,164     | 2%             | <a href="#">FSTOKPVT</a> | <a href="#">^FSTOKPVT</a> | <a href="#">FSTOKPVT</a> | <a href="#">^FSTOKPVT</a> |
| FS Crypto Exchange       | Tokens associated with exchanges       | 82           | \$2,003     | 1%             | <a href="#">FSTOKDEX</a> | <a href="#">^FSTOKDEX</a> | <a href="#">FSTOKDEX</a> | <a href="#">^FSTOKDEX</a> |
| FS Crypto Stablecoin     | Tracks the fiat currencies             | 100          | \$2,007     | 1%             | <a href="#">FSTOKSTB</a> | <a href="#">^FSTOKSTB</a> | <a href="#">FSTOKSTB</a> | <a href="#">^FSTOKSTB</a> |
|                          |  |              |             |                |                          |                           |                          |                           |
| Market-Cap based Indices |  |              |             |                |                          |                           |                          |                           |
| FS Crypto 10             | Top 10 largest Crypto-currencies       | \$123        | \$179,491   | 86%            | <a href="#">FSTOK10</a>  | <a href="#">^FSTOK10</a>  | <a href="#">FSTOK10</a>  | <a href="#">^FSTOK10</a>  |
| FS Crypto 40             | Top 11-50 based on market value        | 99           | \$17,087    | 8%             | <a href="#">FSTOK40</a>  | <a href="#">^FSTOK40</a>  | <a href="#">FSTOK40</a>  | <a href="#">^FSTOK40</a>  |
| FS Crypto 50 Eq Wt       | Equal weighted FS Crypto 10 and 40     | 102          | \$196,578   | 95%            | <a href="#">FSTOKEQW</a> | <a href="#">^FSTOKEQW</a> | <a href="#">FSTOKEQW</a> | <a href="#">^FSTOKEQW</a> |
| FS Crypto 250            | Top 51-300 based on market cap         | 74           | \$6,307     | 3%             | <a href="#">FSTOK250</a> | <a href="#">^FSTOK250</a> | <a href="#">FSTOK250</a> | <a href="#">^FSTOK250</a> |
| FS Crypto 300            | FS Crypto 10, 40 and 250               | 117          | #N/A        | #N/A           | <a href="#">FSTOK300</a> | <a href="#">^FSTOK300</a> | <a href="#">FSTOK300</a> | <a href="#">^FSTOK300</a> |
| FS Crypto Aggregate      | Aggregate index                        | 117          | \$207,558   | 100%           | <a href="#">FSTOKAGG</a> | <a href="#">^FSTOKAGG</a> | <a href="#">FSTOKAGG</a> | <a href="#">^FSTOKAGG</a> |

# Overview

## Relative Performance

Over the past 7 days, the FS CryptoFX Agg Index increased by 0.2%, compared with a 2.4% increase for the S&P 500.

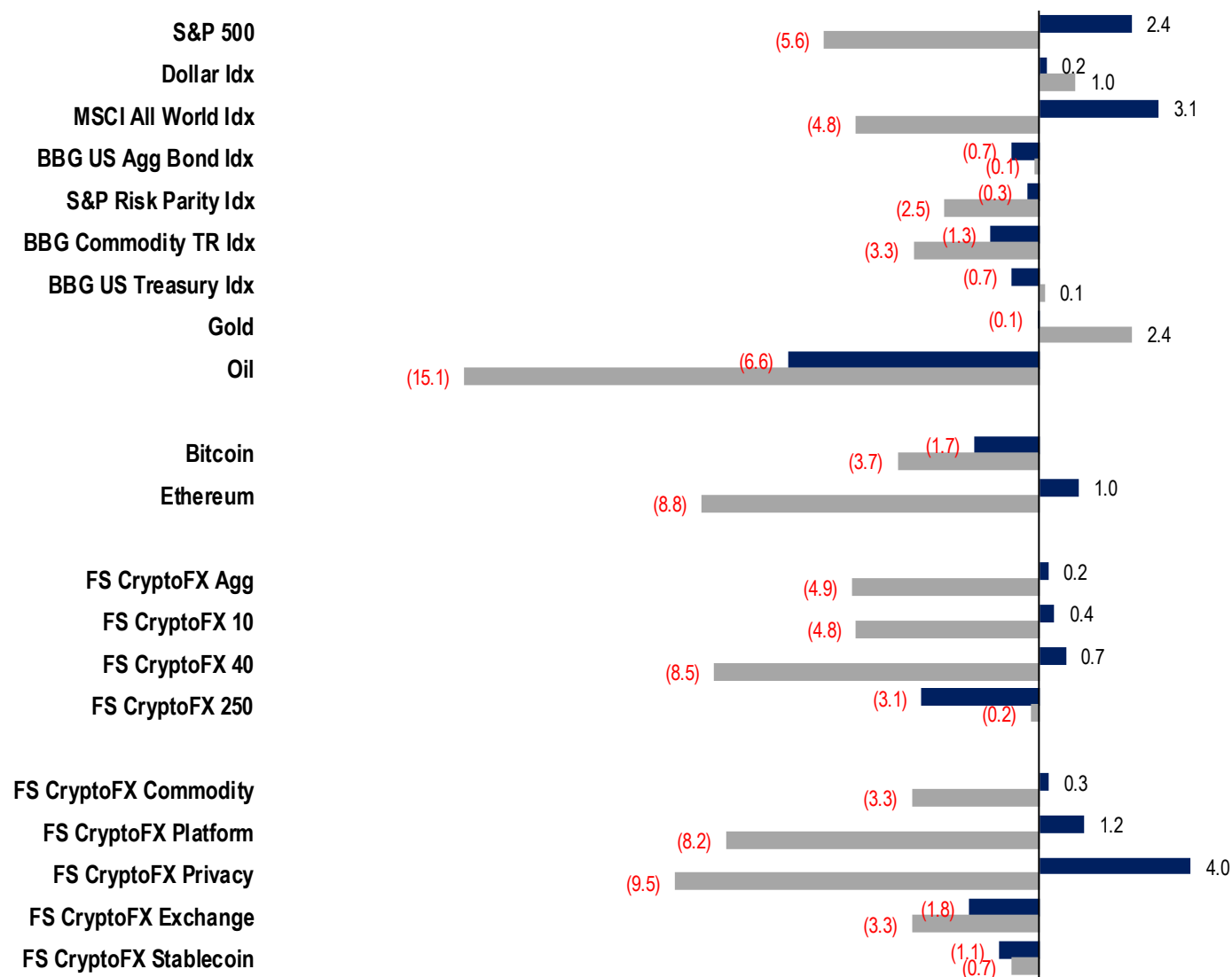
The best performing size-based index was FS CryptoFX 40, which was up 0.7%.

The best performing sector index was FS CryptoFX Privacy, which was up 4.0%.

**Figure: The Fundstrat Crypto-currency Indices**

Fundstrat reference indices.

■ 7D Performance (%) ■ 30D Performance (%)



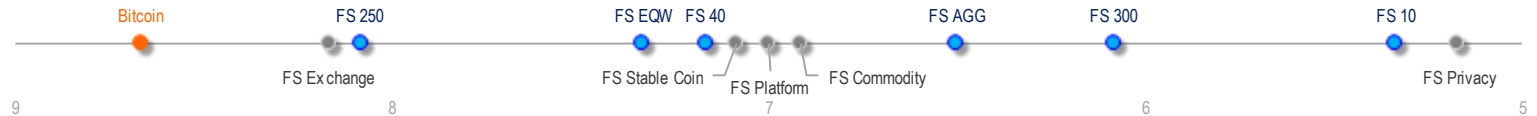
\* Base date of Cap based Indices is 9/30/17 and Sector Indices is 3/31/18

# At a Glance

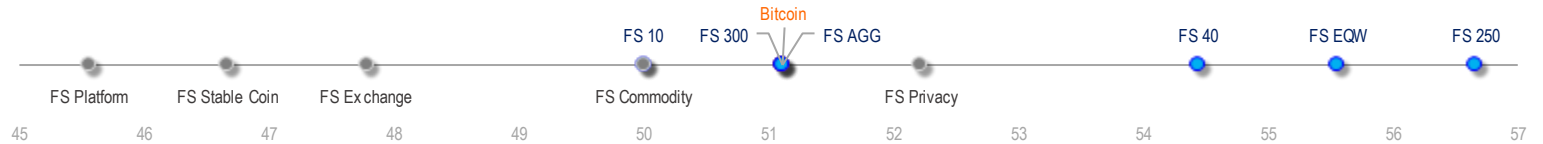
## State of Indices

● Bitcoin ● Size-based Indices ● Sector-based Indices

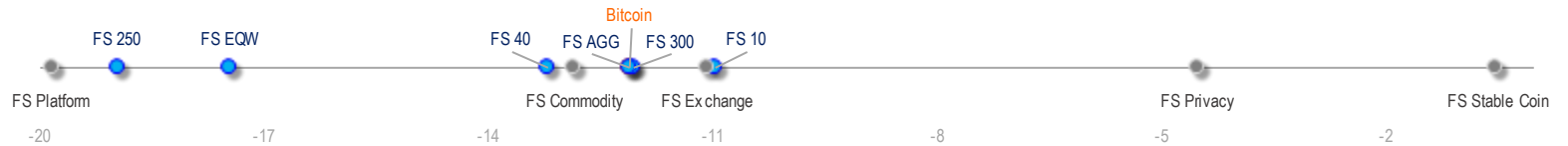
### Composite Technical Score



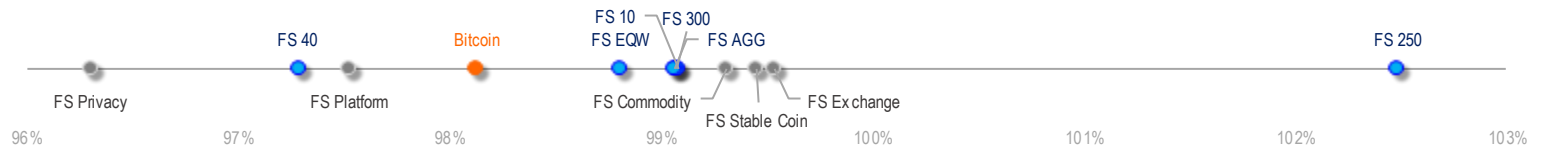
### Win-ratio



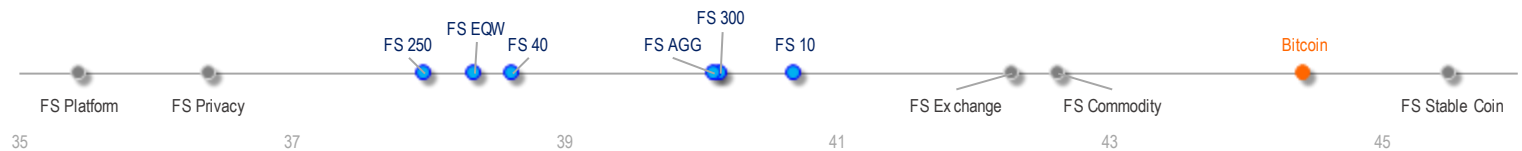
### Upside less downside Volatility



### P/50D



### Weekly RSI



Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

# At a Glance

## State of Indices

| Name           | Symbol   | Price (USD) | Price (BTC) | Technical Metrics        |               |             |                          |                          |            |           |            |            |              |
|----------------|----------|-------------|-------------|--------------------------|---------------|-------------|--------------------------|--------------------------|------------|-----------|------------|------------|--------------|
|                |          |             |             | Composite Technical Rank | 90D Win Ratio | 90D UV - DV | Relative Price to 21 DMA | Relative Price to 50 DMA | Weekly RSI | 5D Return | 10D Return | 30D Return | 21 vs 50 DMA |
| FS Privacy     | FSTOKPVT | \$53.03     | 0.008318    | 1                        | 52            | (5)         | 104.2%                   | 96.3%                    | 36         | 7.0       | 3.3        | (9.5)      | 7.9%         |
| FS 10          | FSTOK10  | \$120.95    | 0.018969    | 2                        | 50            | (11)        | 100.9%                   | 99.1%                    | 41         | 3.5       | 0.8        | (4.8)      | 1.9%         |
| FS 300         | FSTOK300 | \$115.45    | 0.018106    | 3                        | 51            | (12)        | 100.9%                   | 99.1%                    | 40         | 3.6       | 0.6        | (4.9)      | 1.8%         |
| FS AGG         | FSTOKAGG | \$115.22    | 0.018070    | 4                        | 51            | (12)        | 100.9%                   | 99.1%                    | 40         | 3.5       | 0.6        | (4.9)      | 1.8%         |
| FS Commodity   | FSTOKCTB | \$87.46     | 0.013716    | 5                        | 50            | (13)        | 100.6%                   | 99.3%                    | 43         | 2.9       | 0.4        | (3.3)      | 1.3%         |
| FS Platform    | FSTOKPLT | \$56.10     | 0.008799    | 6                        | 46            | (20)        | 101.8%                   | 97.5%                    | 35         | 5.8       | 1.5        | (8.2)      | 4.3%         |
| FS Stable Coin | FSTOKSTB | \$98.86     | 0.015504    | 7                        | 47            | (0)         | 99.9%                    | 99.4%                    | 46         | (0.9)     | (0.1)      | (0.7)      | 0.5%         |
| FS 40          | FSTOK40  | \$99.27     | 0.015568    | 8                        | 54            | (13)        | 100.8%                   | 97.3%                    | 39         | 5.6       | (0.1)      | (8.5)      | 3.5%         |
| FS EQW         | FSTOKEQW | \$101.72    | 0.015954    | 9                        | 56            | (17)        | 100.7%                   | 98.8%                    | 38         | 4.5       | (0.2)      | (6.2)      | 1.9%         |
| FS 250         | FSTOK250 | \$74.30     | 0.011653    | 10                       | 57            | (19)        | 99.8%                    | 102.5%                   | 38         | 1.4       | (2.0)      | (0.2)      | (2.7%)       |
| FS Exchange    | FSTOKDEX | \$82.12     | 0.012879    | 11                       | 48            | (11)        | 98.1%                    | 99.5%                    | 42         | 2.0       | (2.4)      | (3.3)      | (1.4%)       |
| Bitcoin        | BTC      | \$6,376.13  | 1.000000    | 12                       | 51            | (12)        | 98.8%                    | 98.1%                    | 44         | 0.7       | (1.5)      | (3.7)      | 0.7%         |

Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.



# At a Glance Correlation

Within major asset classes, Bitcoin is most correlated to S&P Risk Parity Index with a 90D correlation of 21.4%.

In the past week, the largest change in correlation was S&P Risk Parity Index (+9.2%).

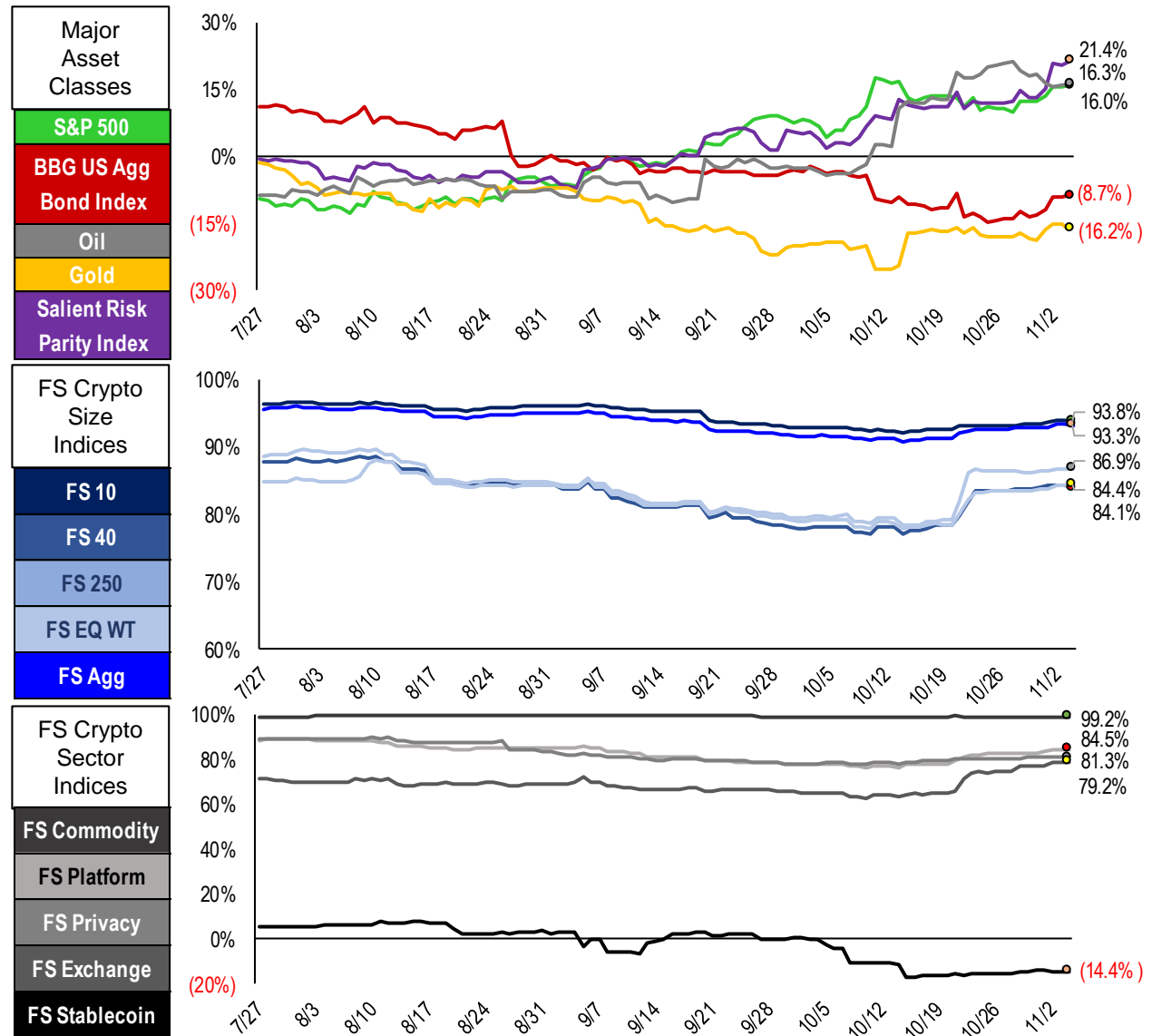
Bitcoin is most correlated to the size index, FS 10 with a 90D correlation of 93.8%.

In the past week, the largest change in correlation was FS EQ WT (+0.7%).

Bitcoin is most correlated to the sector index, FS Commodity with a 90D correlation of 99.2%.

In the past week, the largest change in correlation was FS Exchange (+4.0%).

**Figure: 90D Rolling Correlation – Bitcoin vs Asset Classes vs Size indices and vs Sector indices**  
Over last 100 days



Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

# At a Glance

## State of Tokens 1 of 2

| State of Tokens 1 of 2 |        |            |             |                  |                     | Technical Metrics         |           |             |                 |        |    |       |       |          |                 |
|------------------------|--------|------------|-------------|------------------|---------------------|---------------------------|-----------|-------------|-----------------|--------|----|-------|-------|----------|-----------------|
| Name                   | Symbol | Price      | Price (BTC) | Market Cap (\$B) | Current Coin Supply | Composite Technical Score | 90D       | Relative    |                 | Weekly | 5D | 10D   | 30D   | 21 vs 50 |                 |
|                        |        | (USD)      |             |                  |                     |                           | Win Ratio | 90D UV - DV | Price to 21 DMA |        |    |       |       |          | Price to 50 DMA |
| Bitcoin Cash           | BCH    | \$560.18   | 0.087856    | 9.8              | 17,429,163          | 1                         | 47        | 21          | 124.9%          | 118.5% | 39 | 32.8  | 27.2  | 7.6      | 6.4%            |
| Basic Attenti          | BAT    | \$0.29     | 0.000045    | 0.4              | 1,500,000,000       | 2                         | 50        | 9           | 116.9%          | 143.2% | 57 | 16.8  | 7.8   | 60.2     | (26.4%)         |
| Monero                 | XMR    | \$111.80   | 0.017534    | 1.8              | 16,527,938          | 3                         | 52        | (9)         | 106.1%          | 101.5% | 42 | 9.0   | 5.2   | (2.7)    | 4.6%            |
| Bitcoin Gold           | BTG    | \$29.41    | 0.004613    | 0.5              | 17,408,336          | 4                         | 48        | 13          | 110.1%          | 116.0% | 45 | 13.6  | 8.6   | 7.7      | (5.9%)          |
| Waltonchain            | WTC    | \$3.35     | 0.000525    | 0.2              | 70,000,000          | 5                         | 51        | 24          | 107.1%          | 110.5% | 40 | 0.9   | 9.8   | 16.3     | (3.4%)          |
| Status                 | SNT    | \$0.04     | 0.000006    | 0.3              | 6,804,870,174       | 6                         | 52        | (23)        | 105.4%          | 105.1% | 41 | 7.3   | 7.9   | 3.2      | 0.3%            |
| Zilliqa                | ZIL    | \$0.04     | 0.000006    | 0.5              | 12,600,000,000      | 7                         | 52        | 16          | 103.8%          | 103.1% | 38 | 4.9   | 4.4   | (1.1)    | 0.7%            |
| Stellar                | XLM    | \$0.24     | 0.000038    | 25.2             | 104,403,430,212     | 8                         | 44        | 14          | 103.2%          | 102.2% | 48 | 7.4   | 2.5   | (1.4)    | 1.0%            |
| Cardano                | ADA    | \$0.08     | 0.000012    | 2.4              | 31,112,483,745      | 9                         | 48        | (6)         | 103.3%          | 98.4%  | 40 | 9.5   | 3.2   | (8.1)    | 4.9%            |
| Dash                   | DASH   | \$162.96   | 0.025558    | 1.4              | 8,408,789           | 10                        | 47        | 22          | 104.8%          | 94.5%  | 35 | 6.4   | 5.2   | (10.5)   | 10.2%           |
| EOS                    | EOS    | \$5.45     | 0.000855    | 5.5              | 1,006,245,120       | 11                        | 48        | (11)        | 101.8%          | 99.1%  | 43 | 6.0   | 1.5   | (6.2)    | 2.7%            |
| TRON                   | TRX    | \$0.02     | 0.000004    | 2.3              | 99,000,000,000      | 12                        | 53        | 5           | 99.2%           | 101.4% | 43 | 4.9   | 0.6   | (0.0)    | (2.2%)          |
| XRP                    | XRP    | \$0.46     | 0.000073    | 46.3             | 99,991,797,922      | 13                        | 43        | 72          | 101.3%          | 98.8%  | 48 | 4.0   | 1.0   | (10.9)   | 2.5%            |
| NEO                    | NEO    | \$16.63    | 0.002608    | 1.7              | 100,000,000         | 14                        | 48        | (0)         | 102.4%          | 96.5%  | 35 | 9.3   | 0.7   | (8.4)    | 5.9%            |
| IOTA                   | MIOTA  | \$0.50     | 0.000078    | 1.4              | 2,779,530,283       | 15                        | 49        | (9)         | 102.3%          | 94.0%  | 38 | 10.3  | 0.8   | (13.6)   | 8.3%            |
| Augur                  | REP    | \$14.83    | 0.002326    | 0.2              | 11,000,000          | 16                        | 44        | (18)        | 108.6%          | 111.8% | 38 | 2.8   | 8.3   | 16.4     | (3.3%)          |
| Bitcoin Diamond        | BCD    | \$1.81     | 0.000284    | 0.3              | 156,756,875         | 17                        | 43        | 287         | 102.2%          | 98.8%  | 31 | 6.5   | (2.7) | (8.1)    | 3.4%            |
| Litecoin               | LTC    | \$53.61    | 0.008408    | 3.2              | 58,936,577          | 18                        | 43        | (9)         | 102.9%          | 96.8%  | 35 | 8.9   | 2.6   | (8.8)    | 6.1%            |
| Metaverse ETP          | ETP    | \$3.04     | 0.000477    | 0.2              | 56,780,285          | 19                        | 46        | 33          | 99.9%           | 95.1%  | 58 | (2.3) | (0.3) | (5.6)    | 4.8%            |
| Mithril                | MITH   | \$0.26     | 0.000041    | 0.3              | 1,000,000,000       | 20                        | 46        | (14)        | 101.9%          | 97.6%  | 46 | 0.9   | 1.4   | (8.6)    | 4.2%            |
| Ethereum               | ETH    | \$207.49   | 0.032542    | 21.3             | 102,876,840         | 21                        | 44        | (15)        | 102.0%          | 97.1%  | 33 | 5.0   | 2.4   | (8.8)    | 4.9%            |
| OmiseGO                | OMG    | \$3.28     | 0.000514    | 0.5              | 140,245,398         | 22                        | 48        | (11)        | 100.6%          | 98.0%  | 35 | 3.1   | (0.6) | (6.3)    | 2.6%            |
| Bytecoin               | BCN    | \$0.00     | 0.000000    | 0.2              | 184,066,828,814     | 23                        | 48        | 1           | 99.3%           | 77.1%  | 38 | 5.1   | 1.1   | (41.0)   | 22.2%           |
| Bitcoin                | BTC    | \$6,376.13 | 1.000000    | 110.6            | 17,348,362          | 24                        | 51        | (12)        | 98.8%           | 98.1%  | 44 | 0.7   | (1.5) | (3.7)    | 0.7%            |
| NEM                    | XEM    | \$0.09     | 0.000015    | 0.9              | 8,999,999,999       | 25                        | 49        | (19)        | 100.2%          | 98.6%  | 37 | 5.2   | (1.8) | (10.6)   | 1.6%            |

# At a Glance

## State of Tokens 2 of 2

|                  |        |          |             |                  |                     | Technical Metrics         |         |             |                 |                 |            |           |            |            |              |
|------------------|--------|----------|-------------|------------------|---------------------|---------------------------|---------|-------------|-----------------|-----------------|------------|-----------|------------|------------|--------------|
| Name             | Symbol | Price    |             | Market Cap (\$B) | Current Coin Supply | Composite Technical Score | 90D Win | Relative    |                 | Relative        | Weekly RSI | 5D Return | 10D Return | 30D Return | 21 vs 50 DMA |
|                  |        | (USD)    | Price (BTC) |                  |                     |                           | Ratio   | 90D UV - DV | Price to 21 DMA | Price to 50 DMA |            |           |            |            |              |
| Binance Coin     | BNB    | \$9.63   | 0.001510    | 1.8              | 190,799,315         | 26                        | 44      | (9)         | 99.3%           | 97.4%           | 44         | 2.6       | (0.6)      | (9.5)      | 1.9%         |
| aelf             | ELF    | \$0.32   | 0.000051    | 0.1              | 280,000,000         | 27                        | 51      | (11)        | 98.7%           | 97.1%           | 41         | 2.9       | (3.8)      | (5.5)      | 1.6%         |
| Nano             | NANO   | \$1.94   | 0.000304    | 0.3              | 133,248,289         | 28                        | 42      | 52          | 98.1%           | 91.7%           | 42         | 2.6       | (1.5)      | (11.8)     | 6.4%         |
| Verge            | XVG    | \$0.01   | 0.000002    | 0.2              | 15,172,086,051      | 29                        | 51      | 15          | 98.4%           | 96.2%           | 40         | 2.9       | (3.4)      | (10.2)     | 2.2%         |
| ICON             | ICX    | \$0.64   | 0.000101    | 0.5              | 800,460,000         | 30                        | 50      | 23          | 96.5%           | 97.2%           | 41         | 2.8       | (3.1)      | (6.1)      | (0.7%)       |
| Zcash            | ZEC    | \$120.46 | 0.018892    | 0.6              | 5,120,369           | 31                        | 40      | (12)        | 100.4%          | 98.5%           | 39         | 3.9       | (3.8)      | (5.7)      | 2.0%         |
| Qtum             | QTUM   | \$3.91   | 0.000613    | 0.4              | 100,997,296         | 32                        | 46      | (7)         | 99.1%           | 102.7%          | 36         | 4.0       | (3.9)      | 2.6        | (3.6%)       |
| Steem            | STEEM  | \$0.80   | 0.000125    | 0.2              | 298,791,707         | 33                        | 47      | 2           | 98.9%           | 94.2%           | 38         | 3.4       | (0.5)      | (10.6)     | 4.7%         |
| Nebulas          | NAS    | \$1.52   | 0.000238    | 0.2              | 100,000,000         | 34                        | 46      | 76          | 97.4%           | 96.1%           | 40         | 7.0       | 0.0        | (14.6)     | 1.3%         |
| IOST             | IOST   | \$0.01   | 0.000002    | 0.3              | 21,000,000,000      | 35                        | 49      | (5)         | 98.9%           | 97.3%           | 41         | (1.6)     | (3.7)      | (7.3)      | 1.5%         |
| Dogecoin         | DOGE   | \$0.00   | 0.000001    | 0.4              | 116,765,319,724     | 36                        | 50      | 104         | 88.1%           | 72.7%           | 47         | (4.5)     | (1.1)      | (35.2)     | 15.4%        |
| 0x               | ZRX    | \$0.79   | 0.000123    | 0.8              | 1,000,000,000       | 37                        | 44      | 12          | 94.7%           | 108.1%          | 49         | 2.6       | (6.8)      | 21.9       | (13.4%)      |
| Aeternity        | AE     | \$1.17   | 0.000183    | 0.3              | 273,685,830         | 38                        | 47      | 11          | 93.9%           | 103.6%          | 44         | 2.6       | (7.1)      | 10.4       | (9.8%)       |
| DigiByte         | DGB    | \$0.02   | 0.000003    | 0.2              | 10,986,222,675      | 39                        | 51      | (7)         | 97.0%           | 91.5%           | 43         | 4.7       | (4.2)      | (16.6)     | 5.4%         |
| BitShares        | BTS    | \$0.10   | 0.000015    | 0.3              | 2,668,620,000       | 40                        | 47      | (15)        | 98.8%           | 91.4%           | 41         | 1.5       | (0.6)      | (12.7)     | 7.5%         |
| Ontology         | ONT    | \$1.69   | 0.000265    | 1.7              | 1,000,000,000       | 41                        | 43      | 89          | 96.4%           | 91.6%           | 46         | 3.0       | (3.4)      | (13.3)     | 4.8%         |
| Bytom            | BTM    | \$0.19   | 0.000030    | 0.3              | 1,407,000,000       | 42                        | 50      | (2)         | 96.5%           | 101.2%          | 40         | 0.3       | (8.0)      | 0.7        | (4.7%)       |
| HyperCash        | HC     | \$1.85   | 0.000290    | 0.1              | 43,529,781          | 43                        | 46      | 30          | 98.1%           | 88.1%           | 40         | (1.1)     | (3.6)      | (21.6)     | 9.9%         |
| Lisk             | LSK    | \$2.82   | 0.000442    | 0.4              | 126,915,440         | 44                        | 39      | 31          | 98.1%           | 89.9%           | 36         | 2.2       | (3.4)      | (15.3)     | 8.2%         |
| VeChain          | VET    | \$0.01   | 0.000002    | 0.9              | 86,712,634,466      | 45                        | 44      | 63          | 96.3%           | 87.6%           | 0          | 4.6       | (5.8)      | (18.7)     | 8.7%         |
| Waves            | WAVES  | \$1.82   | 0.000285    | 0.2              | 100,000,000         | 46                        | 44      | 35          | 95.1%           | 88.8%           | 38         | 3.4       | (6.7)      | (17.3)     | 6.3%         |
| Ethereum Classic | ETC    | \$9.37   | 0.001470    | 1.0              | 105,640,828         | 47                        | 41      | (31)        | 98.6%           | 91.1%           | 35         | 4.0       | (2.8)      | (15.2)     | 7.5%         |
| Holo             | HOT    | \$0.00   | 0.000000    | 0.2              | 177,619,433,541     | 48                        | 46      | 69          | 94.5%           | 95.7%           | 43         | (2.6)     | (6.4)      | (13.4)     | (1.2%)       |
| Siacoin          | SC     | \$0.01   | 0.000001    | 0.2              | 37,646,033,997      | 49                        | 50      | 6           | 93.9%           | 97.0%           | 42         | (5.3)     | (11.3)     | (16.5)     | (3.2%)       |
| Huobi Token      | HT     | \$1.52   | 0.000238    | 0.8              | 500,000,000         | 50                        | 40      | (4)         | 96.2%           | 90.8%           | 39         | 0.0       | (5.0)      | (14.6)     | 5.4%         |

# FS CryptoFX 10 and 40 members ranked by Win Ratio and Upside less Downside Vol

**How to read this:** the “Highest/Lowest Win Ratio” based on past 90-day daily return. High Win Ratio means the cryptocurrency has more positive return days

**A**

**Win Ratio — 90 days**  
Sorted high to low

| Rank | Win Ratio     | 90 Day % | Rank | Win Ratio        | 90 Day % |
|------|---------------|----------|------|------------------|----------|
| 1    | TRON          | 53 (20)  | 26   | Aeternity        | 47 (30)  |
| 2    | Monero        | 52 (2)   | 27   | Steem            | 47 (31)  |
| 3    | Status        | 52 (28)  | 28   | BitShares        | 47 (38)  |
| 4    | Zilliqa       | 52 (31)  | 29   | Qtum             | 46 (39)  |
| 5    | Bitcoin       | 51 (8)   | 30   | Metaverse ETP    | 46 30    |
| 6    | Waltonchain   | 51 (5)   | 31   | HyperCash        | 46 (65)  |
| 7    | aelf          | 51 (39)  | 32   | Nebulas          | 46 (30)  |
| 8    | DigiByte      | 51 (33)  | 33   | Mithril          | 46 (44)  |
| 9    | Verge         | 51 (23)  | 34   | Holo             | 46 27    |
| 10   | ICON          | 50 (26)  | 35   | Ethereum         | 44 (49)  |
| 11   | Basic Attenti | 50 7     | 36   | Augur            | 44 (47)  |
| 12   | Bytom         | 50 (29)  | 37   | Binance Coin     | 44 (30)  |
| 13   | Siacoin       | 50 (16)  | 38   | Waves            | 44 (1)   |
| 14   | Dogecoin      | 50 32    | 39   | 0x               | 44 (17)  |
| 15   | IOTA          | 49 (38)  | 40   | Stellar          | 44 3     |
| 16   | NEM           | 49 (33)  | 41   | VeChain          | 44 (21)  |
| 17   | IOST          | 49 (40)  | 42   | Litecoin         | 43 (27)  |
| 18   | Bitcoin Gold  | 48 13    | 43   | Bitcoin Diamond  | 43 12    |
| 19   | NEO           | 48 (37)  | 44   | Ontology         | 43 (24)  |
| 20   | EOS           | 48 (23)  | 45   | XRP              | 43 12    |
| 21   | OmiseGO       | 48 (37)  | 46   | Nano             | 42 25    |
| 22   | Cardano       | 48 (42)  | 47   | Ethereum Classic | 41 (50)  |
| 23   | Bytecoin      | 48 (42)  | 48   | Zcash            | 40 (34)  |
| 24   |               | 47 (19)  | 49   | Huobi Token      | 40 (46)  |
| 25   | Dash          | 47 (18)  | 50   | Lisk             | 39 (27)  |

**How to read this:** Upside less Downside vol is calculated by using the volatility of daily returns on up days minus the volatility of daily returns on down days over the past 90 days.

**B**

**Upside Vol less downside Vol — 90 days**  
Sorted high to low

| Rank | UV less DV      | 90 Day % | Rank | UV less DV       | 90 Day %  |
|------|-----------------|----------|------|------------------|-----------|
| 1    | Bitcoin Diamond | 287 12   | 26   | Steem            | 2 (31)    |
| 2    | Dogecoin        | 104 32   | 27   | Bytecoin         | 1 (42)    |
| 3    | Ontology        | 89 (24)  | 28   | NEO              | (0) (37)  |
| 4    | Nebulas         | 76 (30)  | 29   | Bytom            | (2) (29)  |
| 5    | XRP             | 72 12    | 30   | Huobi Token      | (4) (46)  |
| 6    | Holo            | 69 27    | 31   | IOST             | (5) (40)  |
| 7    | VeChain         | 63 (21)  | 32   | Cardano          | (6) (42)  |
| 8    | Nano            | 52 25    | 33   | DigiByte         | (7) (33)  |
| 9    | Waves           | 35 (1)   | 34   | Qtum             | (7) (39)  |
| 10   | Metaverse ETP   | 33 30    | 35   | Monero           | (9) (2)   |
| 11   | Lisk            | 31 (27)  | 36   | IOTA             | (9) (38)  |
| 12   | HyperCash       | 30 (65)  | 37   | Binance Coin     | (9) (30)  |
| 13   | Waltonchain     | 24 (5)   | 38   | Litecoin         | (9) (27)  |
| 14   | ICON            | 23 (26)  | 39   | EOS              | (11) (23) |
| 15   | Dash            | 22 (18)  | 40   | OmiseGO          | (11) (37) |
| 16   | Bitcoin Cash    | 21 (19)  | 41   | aelf             | (11) (39) |
| 17   | Zilliqa         | 16 (31)  | 42   | Zcash            | (12) (34) |
| 18   | Verge           | 15 (23)  | 43   | Bitcoin          | (12) (8)  |
| 19   | Stellar         | 14 3     | 44   | Mithril          | (14) (44) |
| 20   | Bitcoin Gold    | 13 13    | 45   | BitShares        | (15) (38) |
| 21   | 0x              | 12 (17)  | 46   | Ethereum         | (15) (49) |
| 22   | Aeternity       | 11 (30)  | 47   | Augur            | (18) (47) |
| 23   | Basic Attenti   | 9 7      | 48   | NEM              | (19) (33) |
| 24   | Siacoin         | 6 (16)   | 49   | Status           | (23) (28) |
| 25   | TRON            | 5 (20)   | 50   | Ethereum Classic | (31) (50) |

**How to read this:** The Leadership Ratio ranks the cryptocurrencies on the combined Win Ratio and Upside less Downside Volatility spread

**Rank of A + B**

**Leadership Ratio (avg of A + B)**  
Sorted high to low

| Top 25 | Win Ratio       | UV less DV | 90 Day % | Bottom 25 | Win Ratio        | UV less DV | 90 Day % |
|--------|-----------------|------------|----------|-----------|------------------|------------|----------|
| 1      | Dogecoin        | 50         | 104 32   | 1         | Ethereum Classic | 41 (31)    | (50)     |
| 2      | Waltonchain     | 51         | 24 (5)   | 2         | Zcash            | 40 (12)    | (34)     |
| 3      | Zilliqa         | 52         | 16 (31)  | 3         | Augur            | 44 (18)    | (47)     |
| 4      | ICON            | 50         | 23 (26)  | 4         | Ethereum         | 44 (15)    | (49)     |
| 5      | TRON            | 53         | 5 (20)   | 5         | Litecoin         | 43 (9)     | (27)     |
| 6      | Verge           | 51         | 15 (23)  | 6         | Huobi Token      | 40 (4)     | (46)     |
| 7      | Basic Attenti   | 50         | 9 7      | 7         | Mithril          | 46 (14)    | (44)     |
| 8      | Nebulas         | 46         | 76 (30)  | 8         | Binance Coin     | 44 (9)     | (30)     |
| 9      | Monero          | 52         | (9) (2)  | 9         | BitShares        | 47 (15)    | (38)     |
| 10     | Siacoin         | 50         | 6 (16)   | 10        | NEM              | 49 (19)    | (33)     |
| 11     | Bitcoin Gold    | 48         | 13 13    | 11        | Qtum             | 46 (7)     | (39)     |
| 12     | Metaverse ETP   | 46         | 33 30    | 12        | OmiseGO          | 48 (11)    | (37)     |
| 13     | Holo            | 46         | 69 27    | 13        | Lisk             | 39 31      | (27)     |
| 14     | Dash            | 47         | 22 (18)  | 14        | 0x               | 44 12      | (17)     |
| 15     | Bitcoin Cash    | 47         | 21 (19)  | 15        | EOS              | 48 (11)    | (23)     |
| 16     | Bytom           | 50         | (2) (29) | 16        | Stellar          | 44 14      | 3        |
| 17     | DigiByte        | 51         | (7) (33) | 17        | Cardano          | 48 (6)     | (42)     |
| 18     | HyperCash       | 46         | 30 (65)  | 18        | Nano             | 42 52      | 25       |
| 19     | Bitcoin Diamond | 43         | 287 12   | 19        | Steem            | 47 2       | (31)     |
| 20     | Waves           | 44         | 35 (1)   | 20        | Status           | 52 (23)    | (28)     |
| 21     | Ontology        | 43         | 89 (24)  | 21        | IOTA             | 49 (9)     | (38)     |
| 22     | NEO             | 48         | (0) (37) | 22        | Bytecoin         | 48 1       | (42)     |
| 23     | Bitcoin         | 51 (12)    | (8)      | 23        | XRP              | 43 72      | 12       |
| 24     | VeChain         | 44         | 63 (21)  | 24        | IOST             | 49 (5)     | (40)     |
| 25     | Aeternity       | 47         | 11 (30)  | 25        | aelf             | 51 (11)    | (39)     |

Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

# Overview

## Performance Quilt

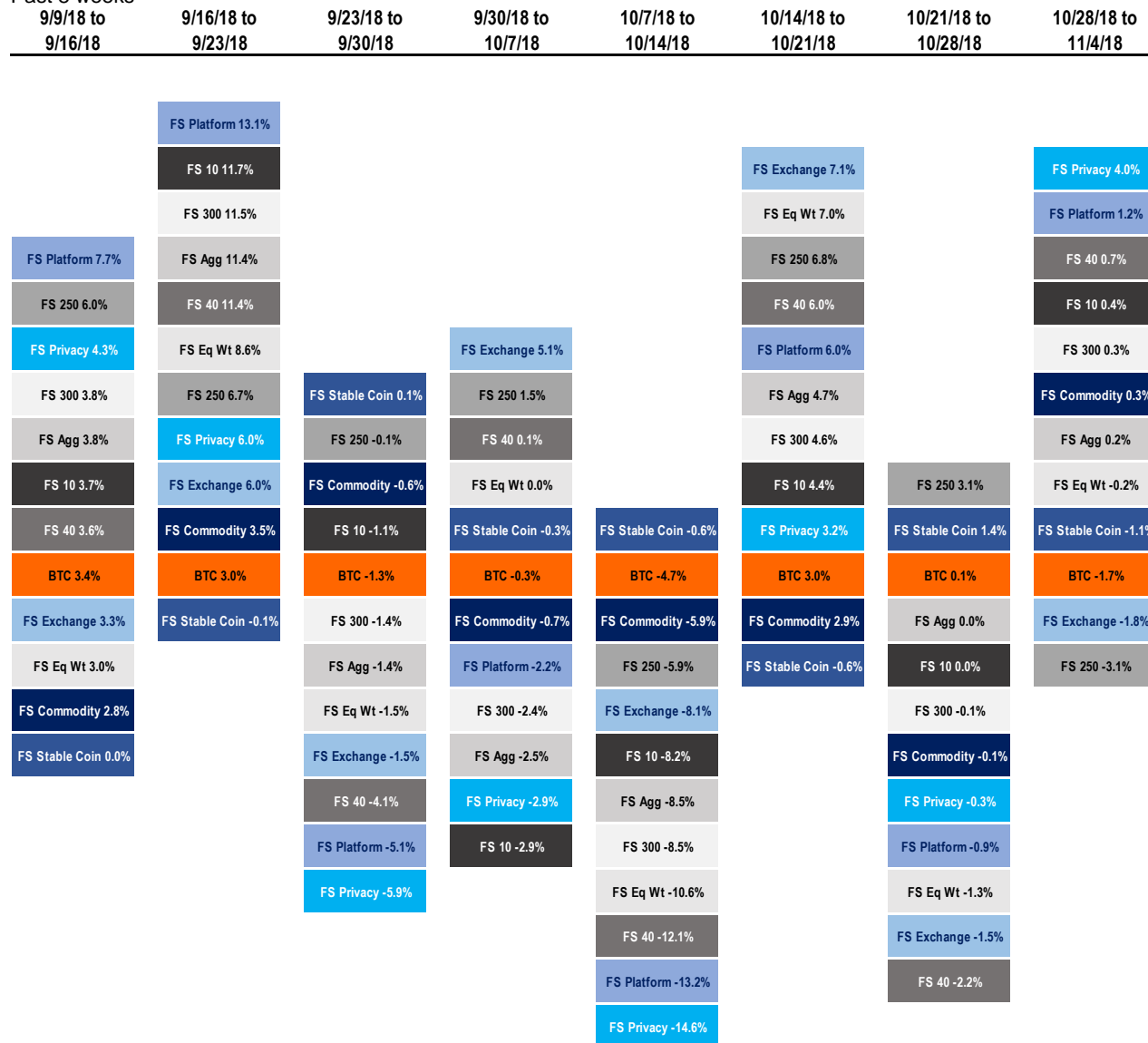
Here we look at the relative performance of our benchmark indices using a performance quilt.

The best performing was FS CryptoFX Privacy Index which was up 4.0%. In the prior week, this index was down 0.3%.

The worst performing was FS CryptoFX 250 Index, which was down 3.1%. In the prior week, this index was up 3.1%.

**Figure: Crypto Performance Quilt**

Past 8 weeks



Source: Fundstrat, Bloomberg.

# SIZE

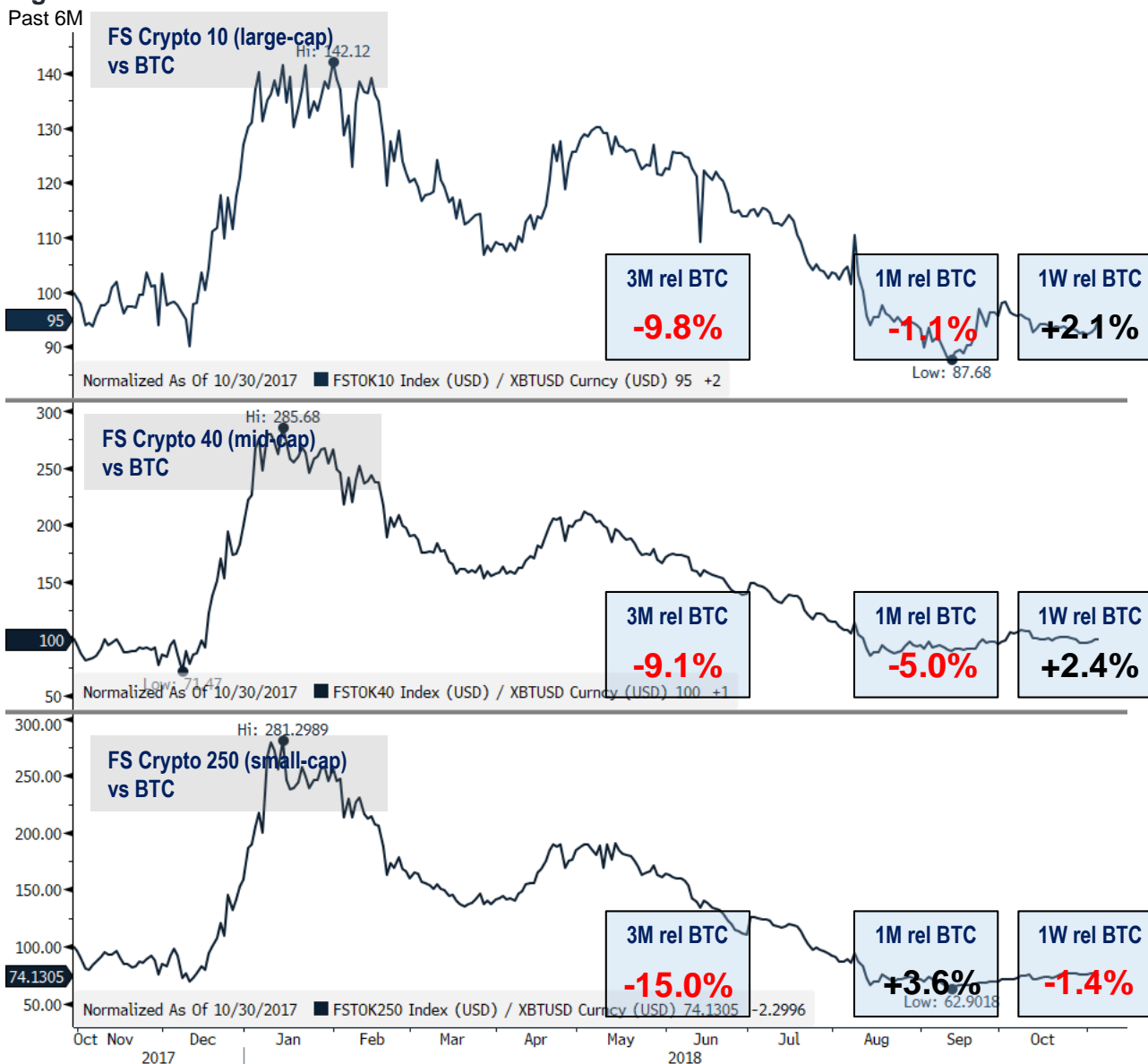
## Indices vs BTC

The 6M price performance of the size-weighted indices are plotted.

Over the past week, the best performing of the size indices was FS CryptoFX 40 which was up 2.4%. The worst performing over that timeframe was FS CryptoFX 250 which was down 1.4%.

Over the past month, the best performing of the size indices was FS CryptoFX 250 which was up 3.6%. The worst performing over that timeframe was FS CryptoFX 40 which was down 5.0%.

**Figure: Size-based Indices Price Ratio to BTC**





# Size Rotation

## Size Pairs

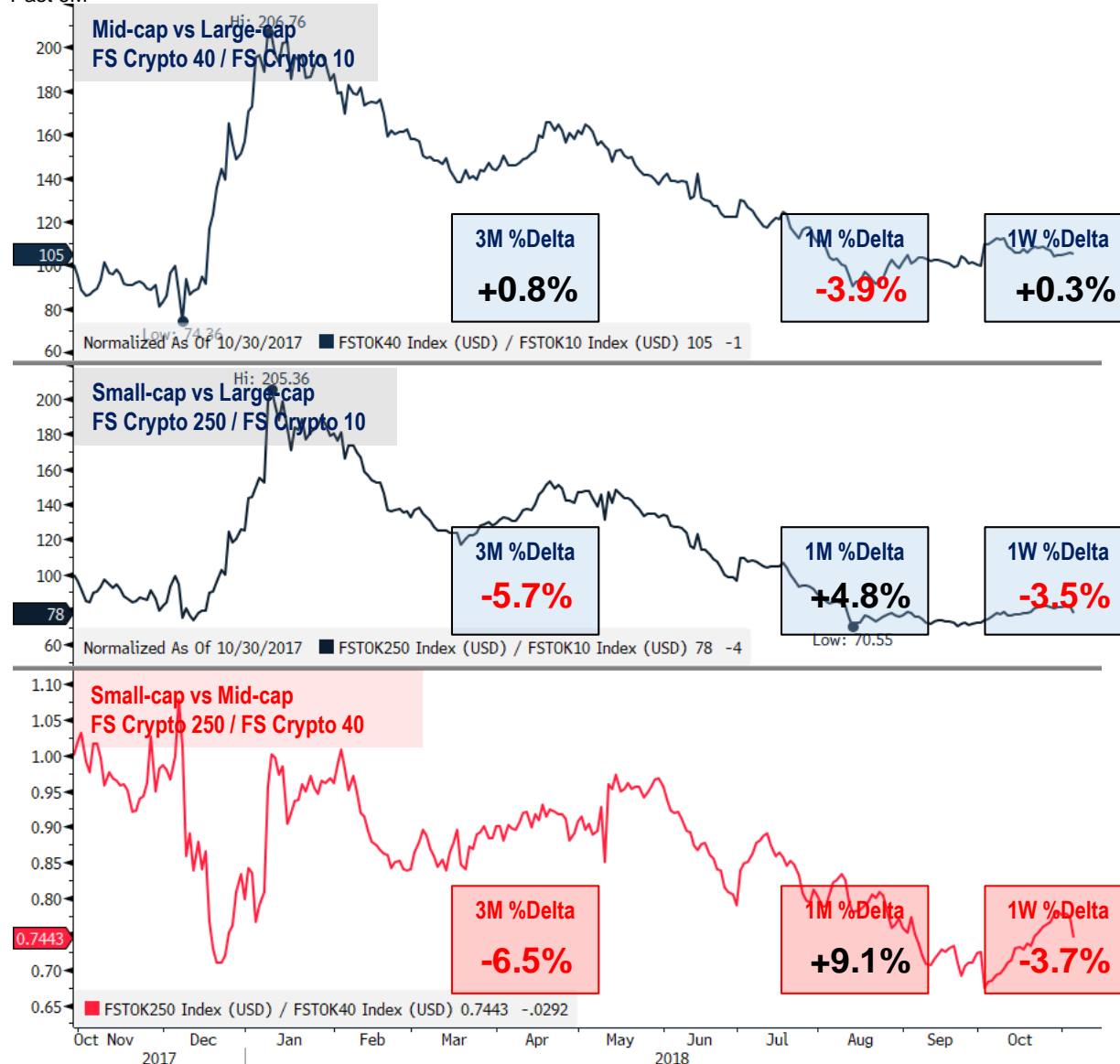
Over the past week, relative performance of mid-cap vs large-cap was up 0.3%.

Over the past week, relative performance of small-cap vs large-cap was down 3.5%.

Over the past week, relative performance of small-cap vs mid-cap was down 3.7%.

Figure: Size Pairs Price Ratio

Past 6M



# Sectors

## Sectors vs BTC

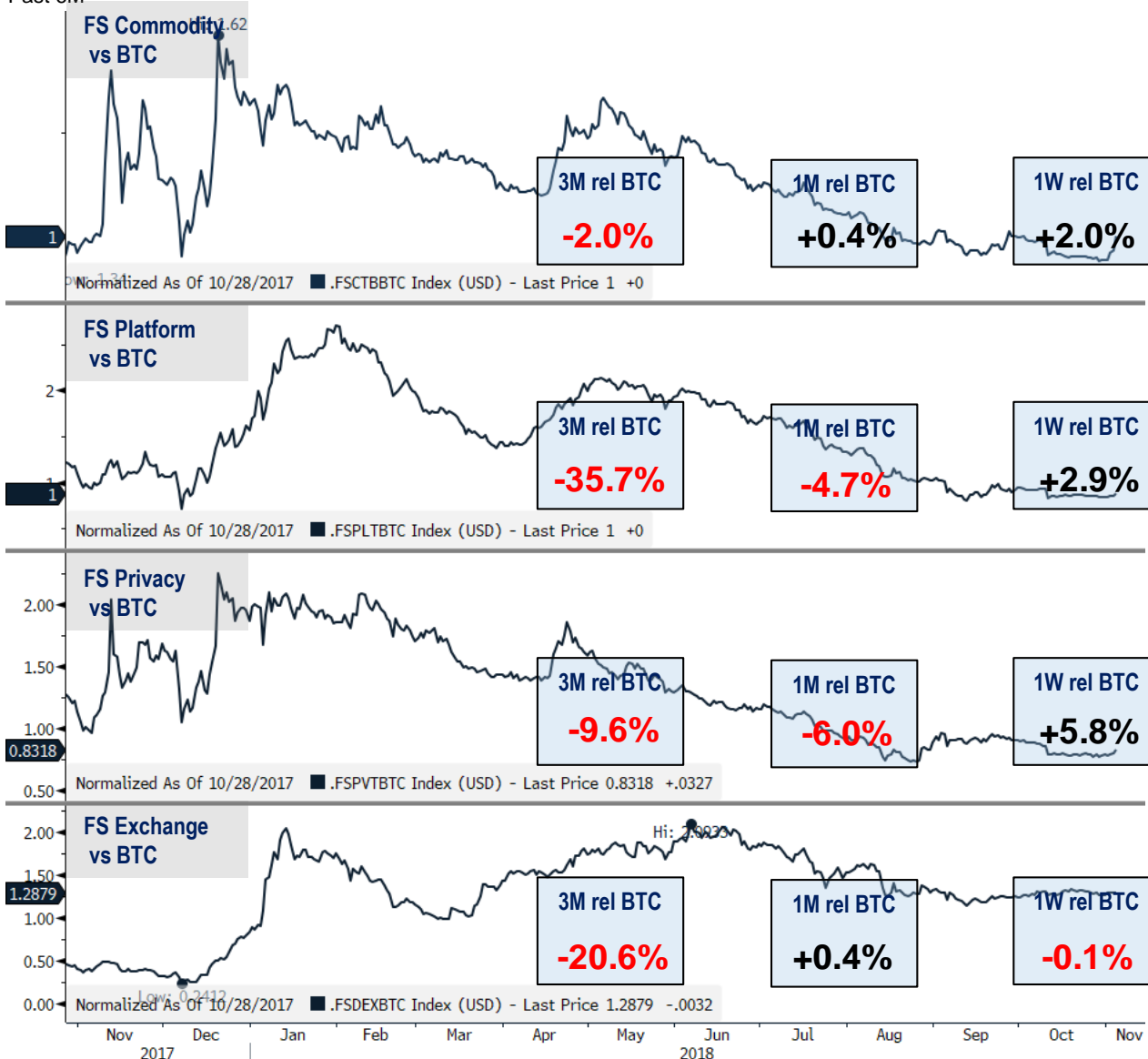
The 6M price performance of the sector indices are plotted.

Over the past week, the best performing of the sector indices was FS Privacy Index which was up 5.8%. The worst performing over that timeframe was FS Exchange Index which was down 0.1%.

Over the past month, the best performing of the sector indices was FS Exchange Index which was up 0.4%. The worst performing over that timeframe was FS Privacy Index which was down 6.0%.

Figure: Sector Price Ratio to BTC

Past 6M



# Sector Rotation

## Sector Pairs

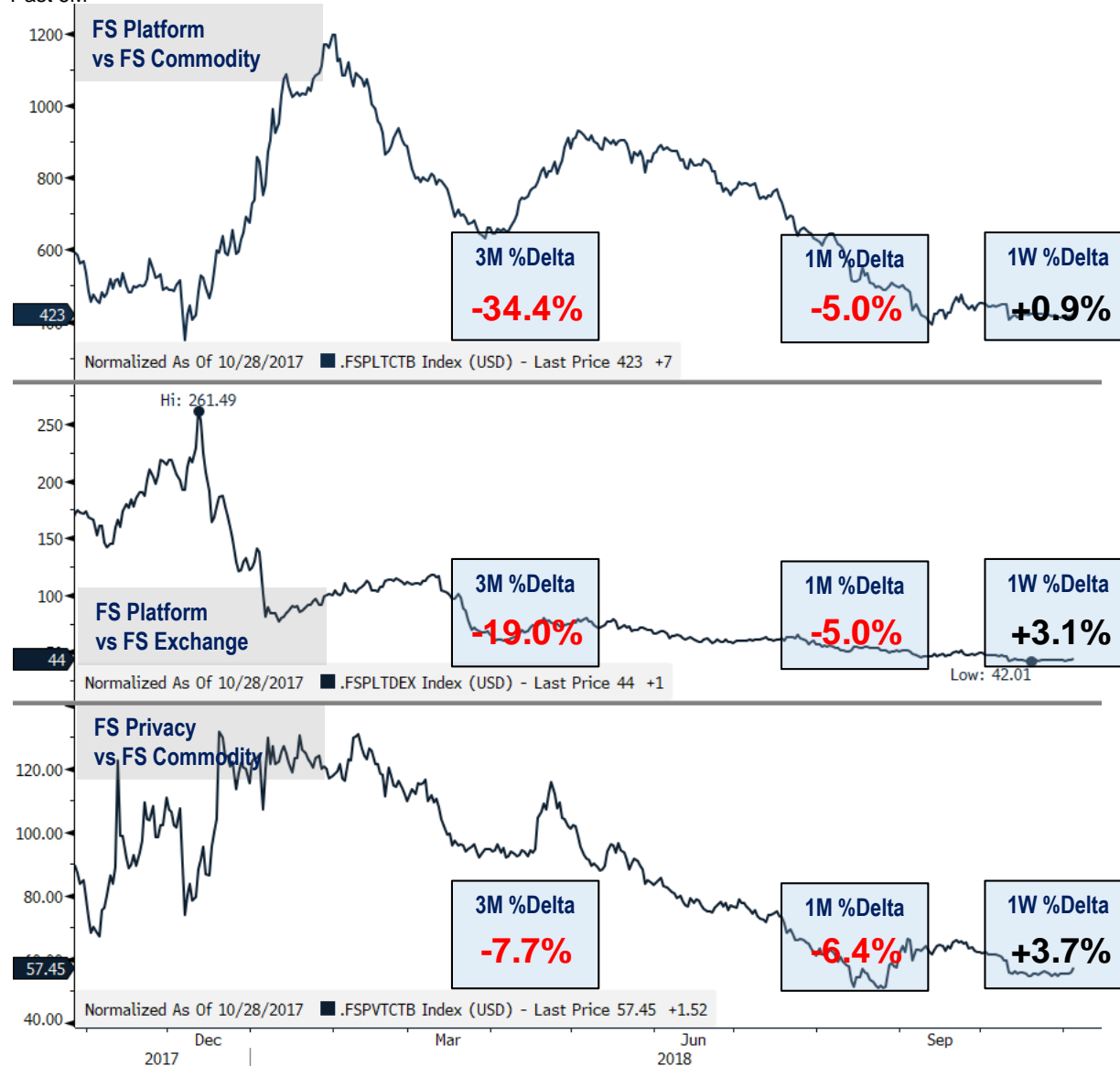
Over the past week, relative performance of Platforms vs Commodities was up 0.9%.

Over the past week, relative performance of Platforms vs Exchanges was up 3.1%.

Over the past week, relative performance of Privacy vs Commodities was up 3.7%.

Figure: Sector Pairs Price Ratio

Past 6M



# Cross Asset Classes Correlation Matrix

**Figure: FS Crypto FX Indices Correlation Matrix against Major Asset Classes (%)**

Based on the daily return of last 90 days

|                        | Bitcoin | FS<br>CryptoFX<br>10 | FS<br>CryptoFX<br>40 | FS<br>CryptoFX<br>250 | FS<br>CryptoFX<br>300 | FS<br>CryptoFX<br>Agg | FS<br>CryptoFX<br>Eq Wt | FS<br>CryptoFX<br>Commodity | FS<br>CryptoFX<br>Platform | FS<br>CryptoFX<br>Privacy | FS<br>CryptoFX<br>Exchange | FS<br>CryptoFX<br>Stablecoin | S&P 500 | US Dollar<br>Index | MSCI All<br>World<br>Index | US Agg<br>Bond<br>Index | Risk<br>Parity<br>Index | Comdty<br>TR Index | US<br>Treasury<br>Index | Gold | Oil |
|------------------------|---------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|-------------------------|-----------------------------|----------------------------|---------------------------|----------------------------|------------------------------|---------|--------------------|----------------------------|-------------------------|-------------------------|--------------------|-------------------------|------|-----|
| Bitcoin                | 100     | 94                   | 84                   | 87                    | 93                    | 93                    | 84                      | 99                          | 85                         | 81                        | 79                         | (14)                         | 16      | 2                  | 20                         | (9)                     | 21                      | 15                 | (10)                    | (16) | 16  |
| FS CryptoFX 10         |         | 100                  | 93                   | 94                    | 100                   | 100                   | 93                      | 96                          | 96                         | 86                        | 87                         | (23)                         | 21      | 0                  | 29                         | (11)                    | 28                      | 20                 | (14)                    | (18) | 12  |
| FS CryptoFX 40         |         |                      | 100                  | 96                    | 95                    | 95                    | 99                      | 88                          | 94                         | 91                        | 92                         | (26)                         | 21      | (2)                | 29                         | (12)                    | 30                      | 21                 | (15)                    | (13) | 12  |
| FS CryptoFX 250        |         |                      |                      | 100                   | 95                    | 95                    | 97                      | 90                          | 94                         | 87                        | 92                         | (18)                         | 18      | (2)                | 25                         | (9)                     | 26                      | 15                 | (11)                    | (14) | 8   |
| FS CryptoFX 300        |         |                      |                      |                       | 100                   | 100                   | 95                      | 96                          | 97                         | 88                        | 88                         | (23)                         | 21      | (0)                | 29                         | (12)                    | 29                      | 20                 | (14)                    | (17) | 12  |
| FS CryptoFX Agg        |         |                      |                      |                       |                       | 100                   | 95                      | 96                          | 97                         | 88                        | 88                         | (23)                         | 21      | (0)                | 29                         | (11)                    | 29                      | 20                 | (14)                    | (17) | 12  |
| FS CryptoFX Eq Wt      |         |                      |                      |                       |                       |                       | 100                     | 88                          | 95                         | 89                        | 92                         | (26)                         | 19      | (4)                | 27                         | (12)                    | 28                      | 21                 | (15)                    | (12) | 10  |
| FS CryptoFX Commodity  |         |                      |                      |                       |                       |                       |                         | 100                         | 88                         | 84                        | 82                         | (18)                         | 16      | 3                  | 22                         | (10)                    | 23                      | 16                 | (12)                    | (18) | 14  |
| FS CryptoFX Platform   |         |                      |                      |                       |                       |                       |                         |                             | 100                        | 87                        | 89                         | (25)                         | 21      | 1                  | 31                         | (13)                    | 30                      | 19                 | (16)                    | (18) | 8   |
| FS CryptoFX Privacy    |         |                      |                      |                       |                       |                       |                         |                             |                            | 100                       | 88                         | (24)                         | 17      | 1                  | 23                         | (10)                    | 22                      | 12                 | (12)                    | (13) | 2   |
| FS CryptoFX Exchange   |         |                      |                      |                       |                       |                       |                         |                             |                            |                           | 100                        | (24)                         | 18      | (7)                | 25                         | (3)                     | 30                      | 21                 | (6)                     | 2    | 7   |
| FS CryptoFX Stablecoin |         |                      |                      |                       |                       |                       |                         |                             |                            |                           |                            | 100                          | (9)     | (10)               | (13)                       | 18                      | (5)                     | (8)                | 20                      | 9    | (9) |
| S&P 500                |         |                      |                      |                       |                       |                       |                         |                             |                            |                           |                            |                              | 100     | (6)                | 92                         | (22)                    | 46                      | 30                 | (26)                    | (9)  | 23  |
| US Dollar Index        |         |                      |                      |                       |                       |                       |                         |                             |                            |                           |                            |                              |         | 100                | (15)                       | (8)                     | (15)                    | (28)               | (4)                     | (57) | 6   |
| MSCI All World Index   |         |                      |                      |                       |                       |                       |                         |                             |                            |                           |                            |                              |         |                    | 100                        | (31)                    | 56                      | 41                 | (37)                    | (9)  | 24  |
| US Agg Bond Index      |         |                      |                      |                       |                       |                       |                         |                             |                            |                           |                            |                              |         |                    |                            | 100                     | 28                      | (17)               | 99                      | 23   | (7) |
| Risk Parity Index      |         |                      |                      |                       |                       |                       |                         |                             |                            |                           |                            |                              |         |                    |                            |                         | 100                     | 71                 | 21                      | 21   | 45  |
| Comdty TR Index        |         |                      |                      |                       |                       |                       |                         |                             |                            |                           |                            |                              |         |                    |                            |                         |                         | 100                | (22)                    | 35   | 58  |
| US Treasury Index      |         |                      |                      |                       |                       |                       |                         |                             |                            |                           |                            |                              |         |                    |                            |                         |                         |                    | 100                     | 22   | (8) |
| Gold                   |         |                      |                      |                       |                       |                       |                         |                             |                            |                           |                            |                              |         |                    |                            |                         |                         |                    |                         | 100  | 4   |
| Oil                    |         |                      |                      |                       |                       |                       |                         |                             |                            |                           |                            |                              |         |                    |                            |                         |                         |                    |                         |      | 100 |

Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

Based on the daily return of last 90 days



# Executive Summary

- Overview

• **SIZE: FS Large-cap 10, FS Mid-cap 40, FS small-cap 250**

- **SECTOR: Commodities**
- **SECTOR: Platforms**
- **SECTOR: Exchanges**
- **SECTOR: Privacy**
- **SECTOR: Stable coins**
- **Chartbook: FS Large-cap 10 and FS Mid-cap 40**



# Large-cap FS CryptoFX 10

The FS CryptoFX 10 index is designed to track the performance of the top 10 largest and most liquid Crypto-currencies.

Over the past week, the FS CryptoFX 10 index was up 2.1% Relative to BTC. Over the past month, this index was down 1.1% Relative to BTC.

The two best performing constituents this index in the past week are Bitcoin Cash up 27.0% and Dash up 4.2%.

The two worst performing constituents this index in the past week are Ethereum Classic down 2.5% and Bitcoin down 1.7%.

Figure: FS CryptoFX 10 Price Ratio to BTC



| Rank     | 1            | 2    | 3       | 4        | 5        | 6   | 7   | 8    | 9       | 10               |
|----------|--------------|------|---------|----------|----------|-----|-----|------|---------|------------------|
| Token    | Bitcoin Cash | Dash | Stellar | Litecoin | Ethereum | EOS | XRP | TRON | Bitcoin | Ethereum Classic |
| 7D chg   | 27%          | 4%   | 4%      | 3%       | 1%       | 0%  | 0%  | (1%) | (2%)    | (2%)             |
| % weight | 4%           | 1%   | 2%      | 2%       | 12%      | 3%  | 10% | 1%   | 64%     | 1%               |

Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

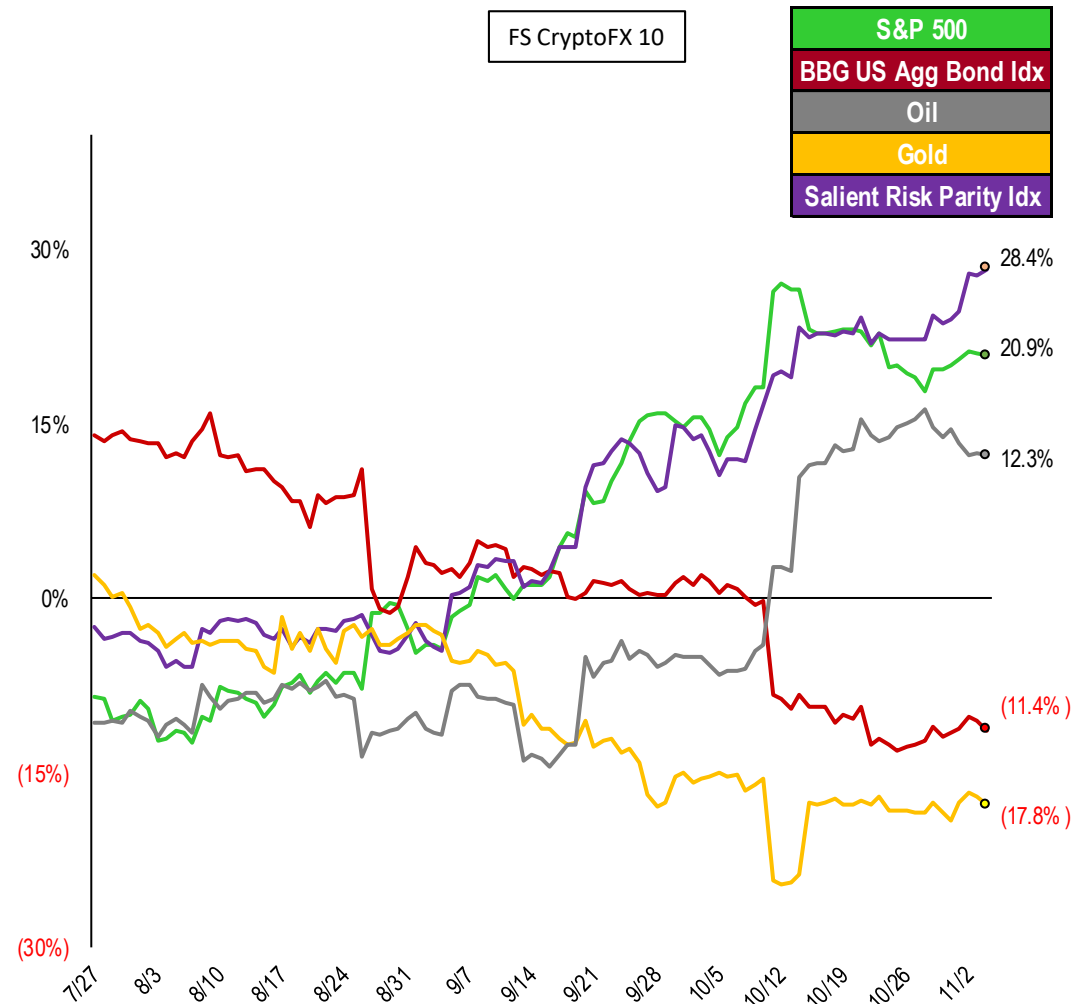
# Correlation FS CryptoFX 10

The FS CryptoFX 10 index is designed to track the performance of the top 10 largest and most liquid Crypto-currencies.

The FS CryptoFX 10 Index is most correlated to S&P Risk Parity Index with a 90D correlation of 28.4%.

The FS CryptoFX 10 Index is least correlated to Gold with a 90D correlation of -17.8%.

**Figure: 90D Rolling Correlation - FS CryptoFX 10 Correlation against Major Asset Classes**  
Over last 100 days



Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

# Mid-cap FS CryptoFX 40

The FS CryptoFX 40 index is designed to track the performance of the top 11-50 Crypto-currencies based on market value and liquidity.

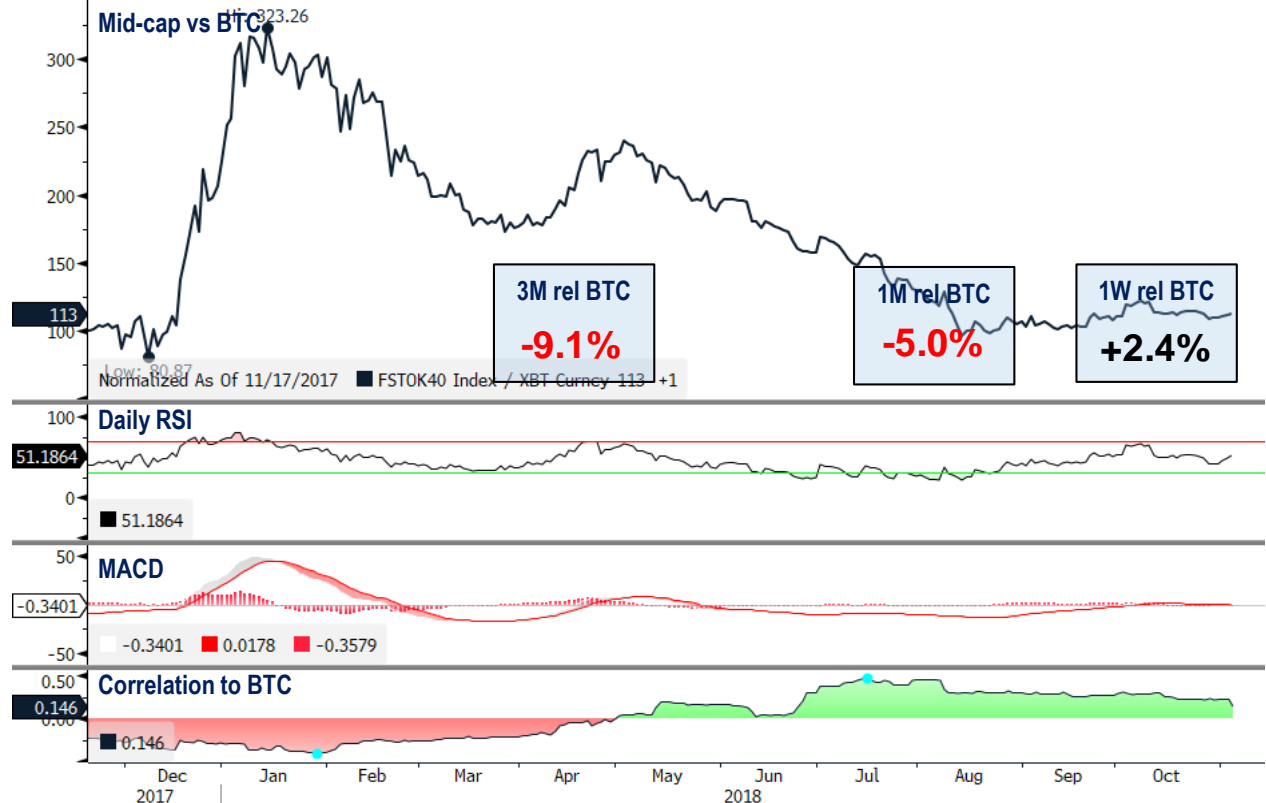
Over the past week, the FS CryptoFX 40 index was up 2.4% Relative to BTC. Over the past month, this index was down 5.0% Relative to BTC.

The two best performing constituents this index in the past week are Basic Attention Token up 15.8% and Bitcoin Gold up 8.7%.

The two worst performing constituents this index in the past week are Siacoin down 10.2% and Dogecoin down 9.5%.

Figure: FS CryptoFX 40 Price Ratio to BTC

Past 6M



| 10 Best  |  | 1                     | 2            | 3      | 4           | 5           | 6      | 7         | 8         | 9        | 10      |
|----------|--|-----------------------|--------------|--------|-------------|-------------|--------|-----------|-----------|----------|---------|
| Token    |  | Basic Attention Token | Bitcoin Gold | Monero | Waltonchain | Cardano     | Status | Bytecoin  | IOTA      | NEO      | Steem   |
| 7D chg   |  | 16%                   | 9%           | 6%     | 5%          | 4%          | 4%     | 4%        | 3%        | 3%       | 2%      |
| % weight |  | 1%                    | 3%           | 10%    | 1%          | 11%         | 1%     | 1%        | 8%        | 6%       | 1%      |
| 10 Worst |  | 31                    | 32           | 33     | 34          | 35          | 36     | 37        | 38        | 39       | 40      |
| Token    |  | 0x                    | IOST         | Verge  | Holo        | Huobi Token | Bytom  | HyperCash | Aeternity | Dogecoin | Siacoin |
| 7D chg   |  | (5%)                  | (5%)         | (5%)   | (5%)        | (5%)        | (6%)   | (8%)      | (9%)      | (10%)    | (10%)   |
| % weight |  | 3%                    | 1%           | 1%     | 1%          | 0%          | 1%     | 1%        | 2%        | 3%       | 2%      |

Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

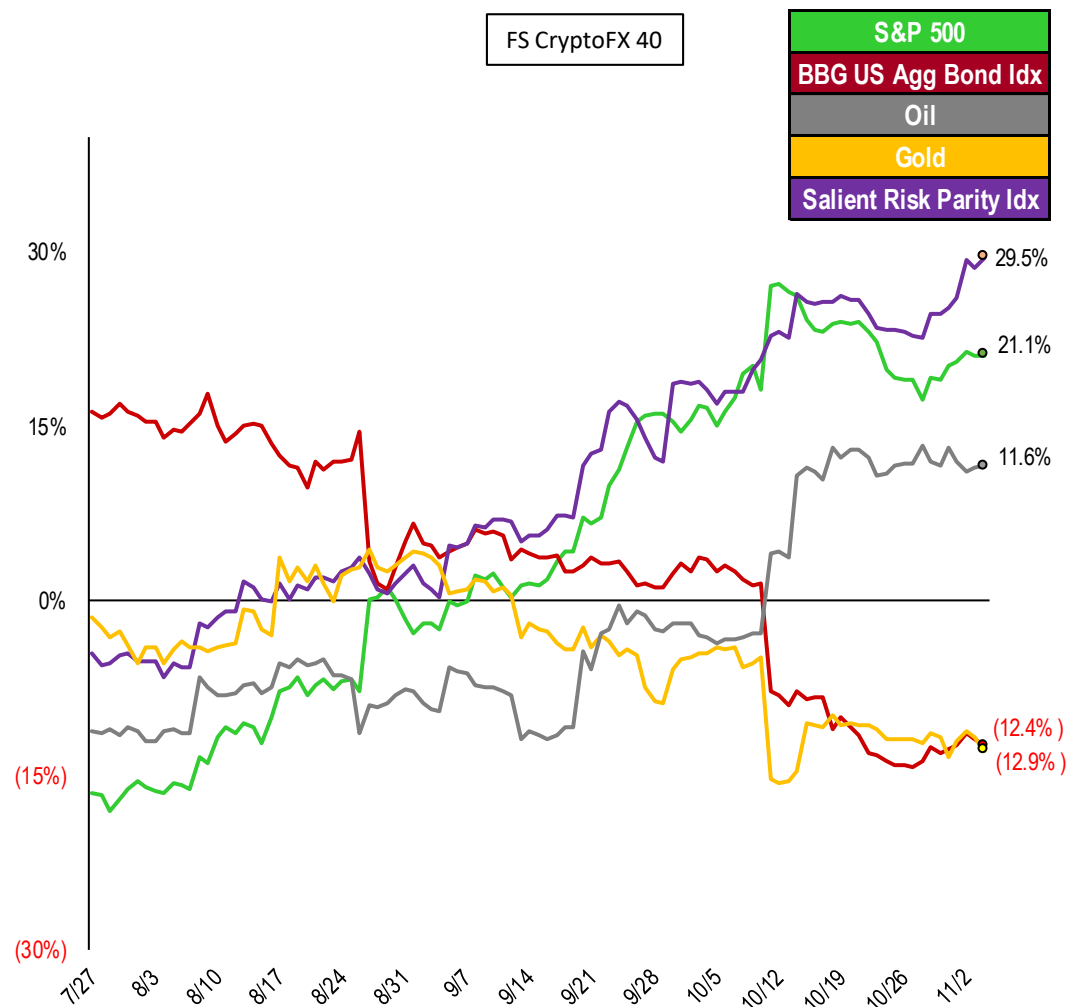
# Correlation FS CryptoFX 40

The FS CryptoFX 40 index is designed to track the performance of the top 11-50 Crypto-currencies based on market value and liquidity.

The FS CryptoFX 40 Index is most correlated to S&P Risk Parity Index with a 90D correlation of 29.5%.

The FS CryptoFX 40 Index is least correlated to Gold with a 90D correlation of -12.9%.

**Figure: 90D Rolling Correlation - FS CryptoFX 40 Correlation against Major Asset Classes**  
Over last 100 days



Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

# Small-cap FS CryptoFX 250

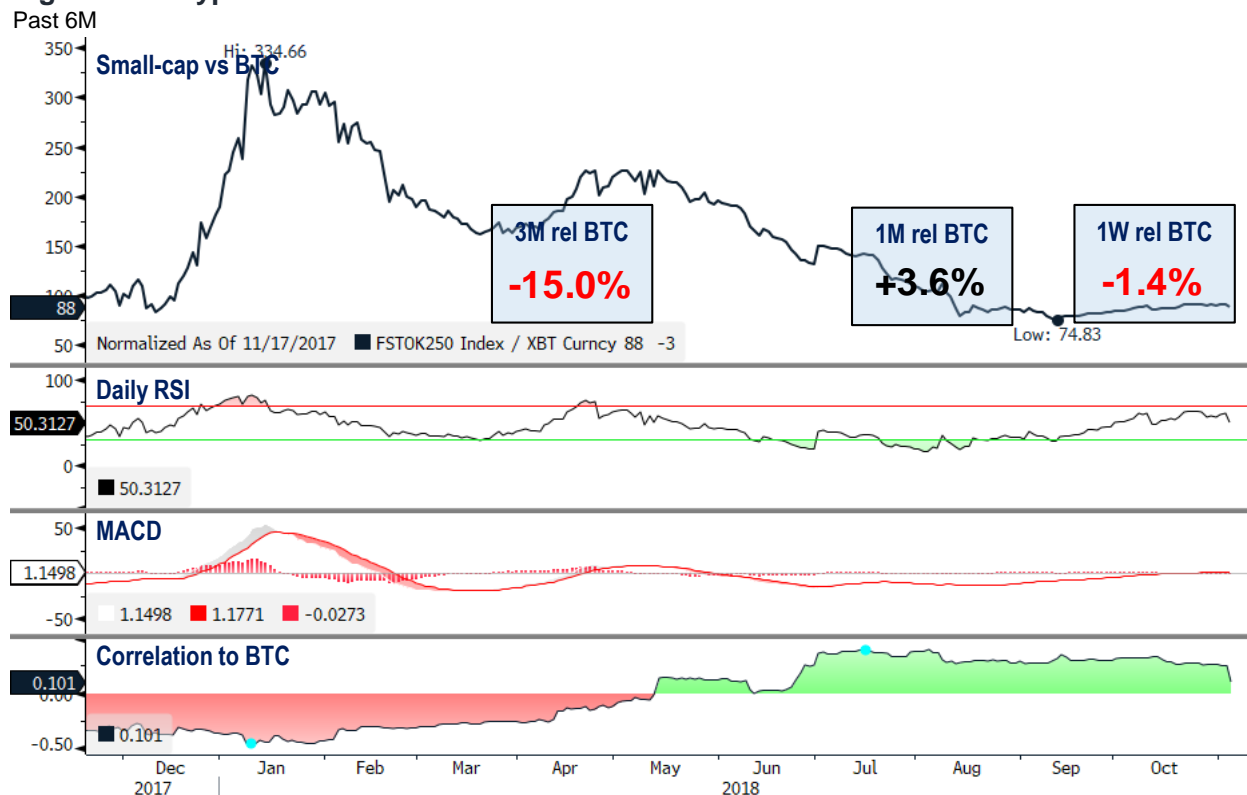
The FS CryptoFX 250 index is designed to track the performance of the top 51-300 Crypto-currencies based on market value and liquidity.

Over the past week, the FS CryptoFX 250 index was down 1.4% Relative to BTC. Over the past month, this index was up 3.6% Relative to BTC.

The two best performing constituents this index in the past week are Oyster up 156.0% and NKN up 54.4%.

The two worst performing constituents this index in the past week are Docademic down 100.0% and Docademic down 100.0%.

Figure: FS CryptoFX 250 Price Ratio to BTC



| 10 Best  |          |        |          |             |                   |                  |        |                 |           |                   |
|----------|----------|--------|----------|-------------|-------------------|------------------|--------|-----------------|-----------|-------------------|
| Token    | 1        | 2      | 3        | 4           | 5                 | 6                | 7      | 8               | 9         | 10                |
| 7D chg   | Oyster   | NKN    | TokenPay | MARK.SPAC E | Ormeus Coin       | SIRIN LABS Token | Bezant | Endor Protocol  | CPChain   | Republic Protocol |
| % weight | 156%     | 54%    | 39%      | 38%         | 37%               | 24%              | 23%    | 20%             | 19%       | 18%               |
|          | 0%       | 0%     | 0%       | 0%          | 0%                | 0%               | 0%     | 0%              | 0%        | 0%                |
| 10 Worst |          |        |          |             |                   |                  |        |                 |           |                   |
| Token    | 241      | 242    | 243      | 244         | 245               | 246              | 247    | 248             | 249       | 250               |
| 7D chg   | MobileGo | Patron | Slox     | Dock        | Red Pulse Phoenix | Revain           | DAEX   | Digitex Futures | Docademic | Docademic         |
| % weight | (24%)    | (24%)  | (25%)    | (25%)       | (27%)             | (28%)            | (30%)  | (62%)           | (100%)    | (100%)            |
|          | 1%       | 0%     | 0%       | 0%          | 0%                | 1%               | 0%     | 1%              | 0%        | 0%                |

Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

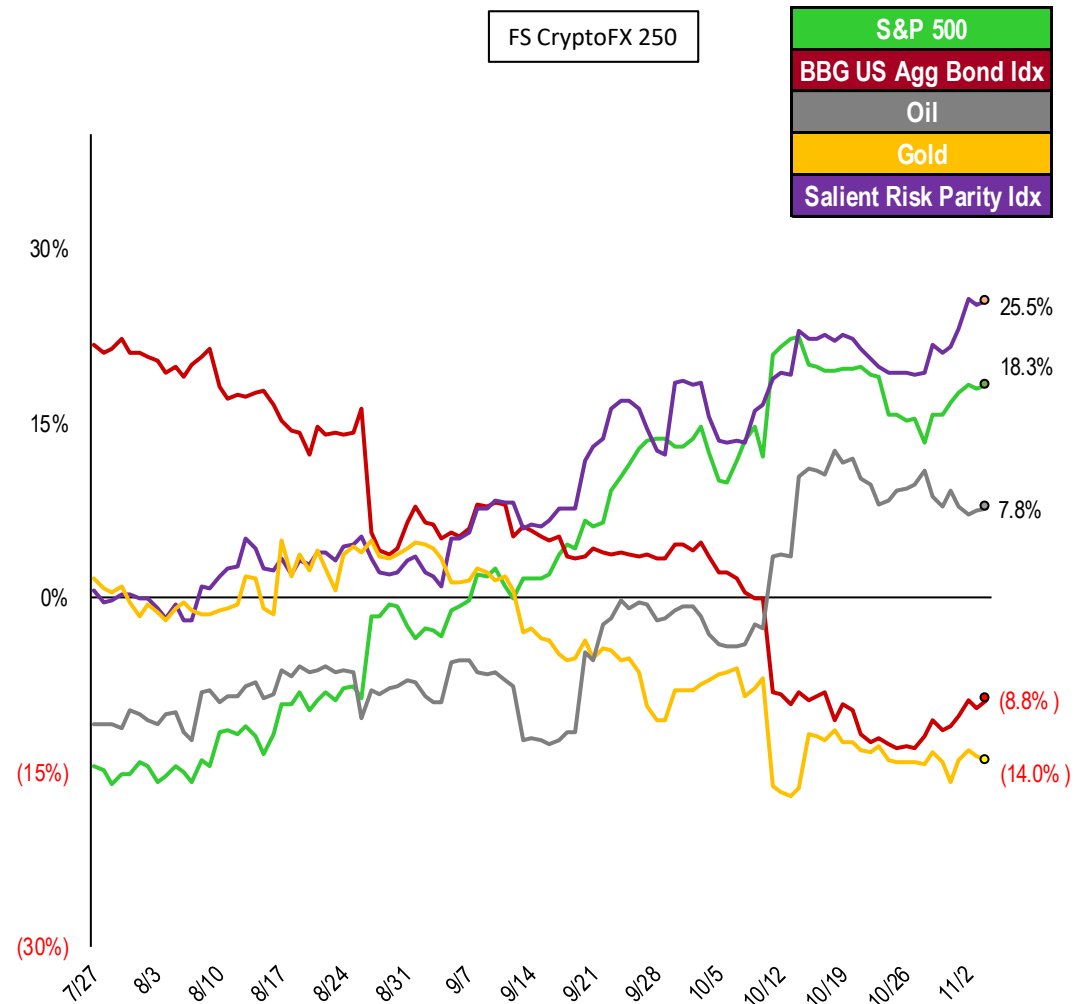
# Correlation FS CryptoFX 250

The FS CryptoFX 250 index is designed to track the performance of the top 51-300 Crypto-currencies based on market value and liquidity.

The FS CryptoFX 250 Index is most correlated to S&P Risk Parity Index with a 90D correlation of 25.5%.

The FS CryptoFX 250 Index is least correlated to Gold with a 90D correlation of -14.0%.

**Figure: 90D Rolling Correlation - FS CryptoFX 250 Correlation against Major Asset Classes**  
Over last 100 days



Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.



# Executive Summary

- Overview
- SIZE: FS Large-cap 10, FS Mid-cap 40, FS small-cap 250
- SECTOR: Commodities
- SECTOR: Platforms
- SECTOR: Exchanges
- SECTOR: Privacy
- SECTOR: Stable coins
- Chartbook: FS Large-cap 10 and FS Mid-cap 40

# Sectors

## Commodity

The FS CryptoFX Commodity index is designed to track the performance of the tokens which are viewed purely as digital currencies and/or commodities.

Over the past week, the FS CryptoFX Commodity index was up 2.0% Relative to BTC. Over the past month, this index was up 0.4% Relative to BTC.

The two best performing constituents this index in the past week are Bitcoin Cash up 27.0% and Monero up 6.5%.

The two worst performing constituents this index in the past week are Bitcoin down 1.7% and Litecoin up 3.2%

Figure: FS Crypto Sector Price Ratio to BTC  
Past 12M



|                        | Best ← → Worst |        |          |          |         |       |
|------------------------|----------------|--------|----------|----------|---------|-------|
| Rank                   | 1              | 2      | 3        | 4        | 5       | 6     |
| <b>Past 1 week...</b>  |                |        |          |          |         |       |
| Token                  | Bitcoin Cash   | Monero | Bytecoin | Litecoin | Bitcoin | Zcash |
| 7D chg                 | 27%            | 6%     | 4%       | 3%       | (2%)    | (2%)  |
| % weight               | 8%             | 1%     | 0%       | 3%       | 88%     | 0%    |
| <b>Past 2 weeks...</b> |                |        |          |          |         |       |
| Token                  | Bitcoin Cash   | Monero | Litecoin | Bytecoin | Bitcoin | Zcash |
| 14D chg                | 25%            | 6%     | 1%       | (2%)     | (2%)    | (4%)  |
| % weight               | 8%             | 1%     | 3%       | 0%       | 88%     | 0%    |

Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

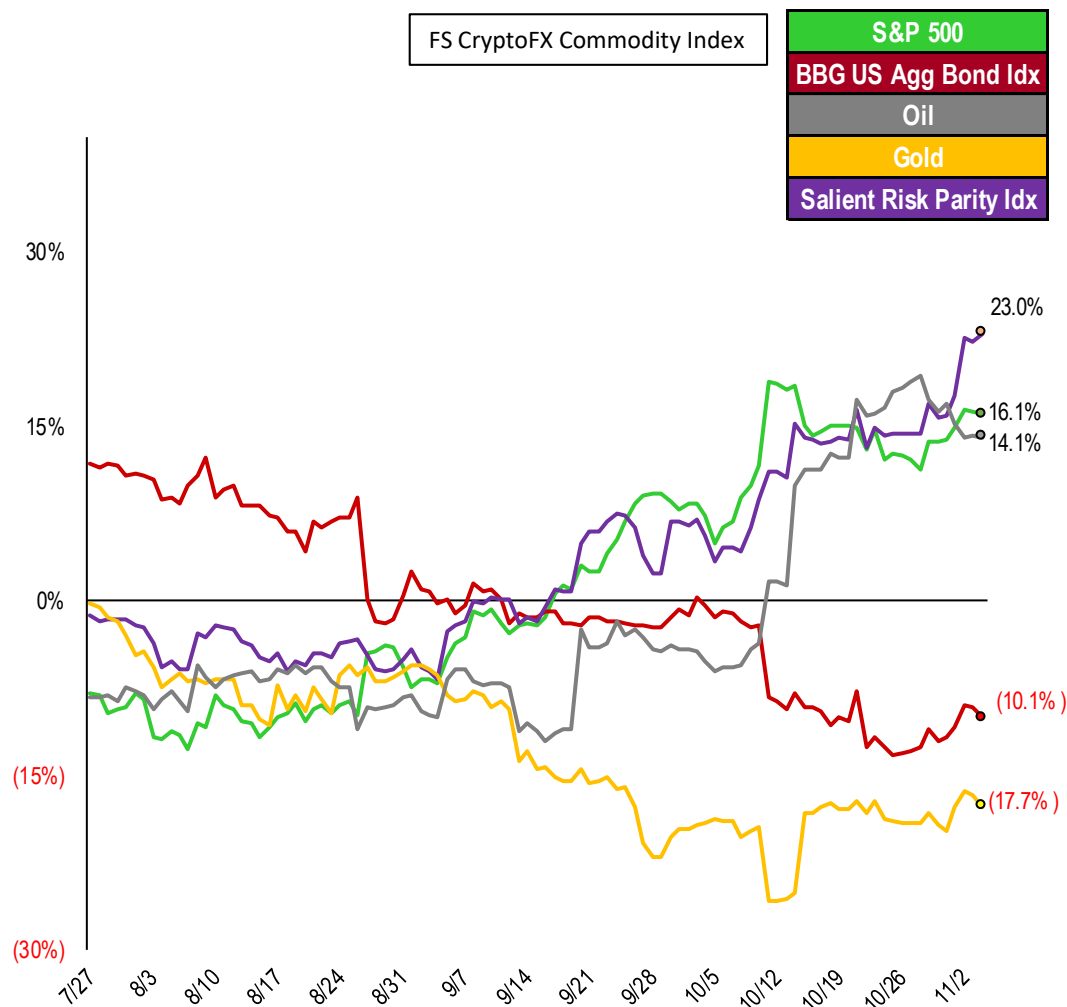
# Correlation FS Commodity

The FS CryptoFX Commodity index is designed to track the performance of the tokens which are viewed purely as digital currencies and/or commodities.

The FS Commodity Index is most correlated to S&P Risk Parity Index with a 90D correlation of 23.0%.

The FS Commodity Index is least correlated to Gold with a 90D correlation of -17.7%.

**Figure: 90D Rolling Correlation - Commodity Correlation against Major Asset Classes**  
Over last 100 days



Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

# Executive Summary

- Overview
- SIZE: FS Large-cap 10, FS Mid-cap 40, FS small-cap 250
- SECTOR: Commodities
- SECTOR: Platforms
- SECTOR: Exchanges
- SECTOR: Privacy
- SECTOR: Stable coins
- Chartbook: FS Large-cap 10 and FS Mid-cap 40

# Sectors Platforms

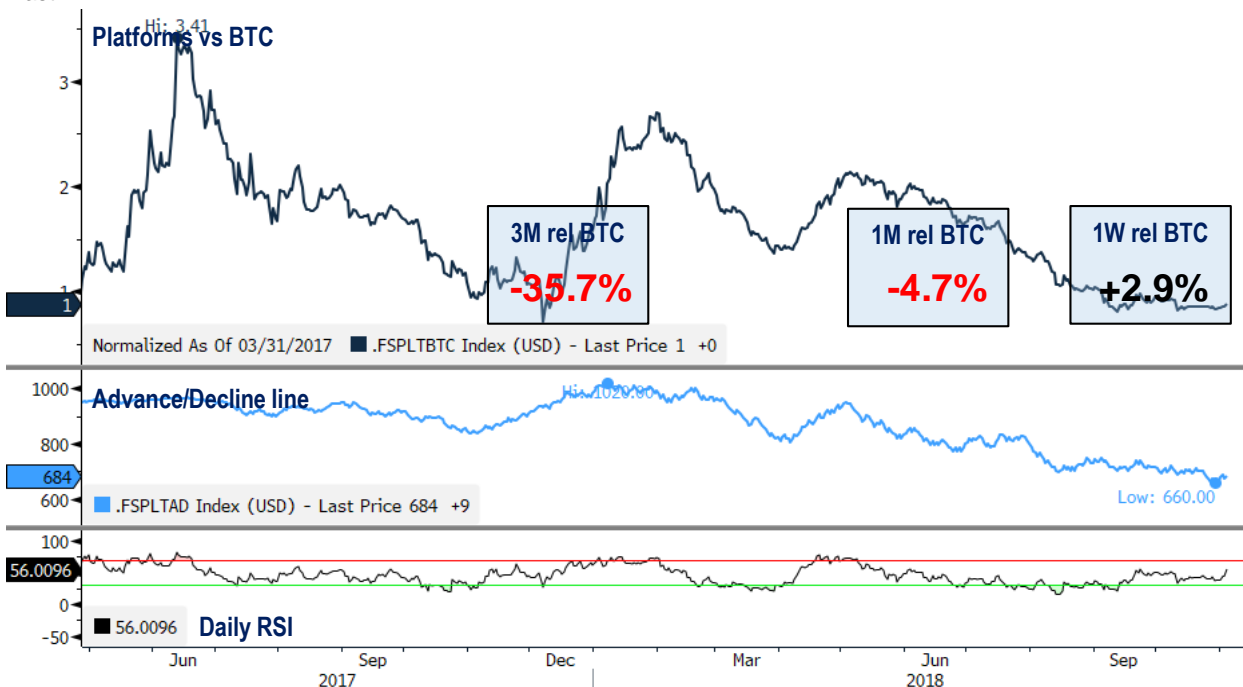
The FS Crypto Platform index is designed to track the performance of cryptocurrencies which enable developers to create and use decentralized applications (dApps).

Over the past week, the FS CryptoFX Platform index was up 2.9% Relative to BTC. Over the past month, this index was down 4.7% Relative to BTC.

The two best performing constituents this index in the past week are Cardano up 4.2% and Stellar up 3.8%.

The two worst performing constituents this index in the past week are Waves down 8.1% and Qtum down 6.9%.

Figure: FS Crypto Platforms Price Ratio to BTC  
Past 12M



|                 | Best ← → Worst |          |      |     |     |          |         |      |          |      |      |      |      |      |       |
|-----------------|----------------|----------|------|-----|-----|----------|---------|------|----------|------|------|------|------|------|-------|
| Rank            | 1              | 2        | 3    | 4   | 5   | 6        | 7       | 8    | 9        | 10   | 11   | 12   | 13   | 14   | 15    |
| Past 1 week...  |                |          |      |     |     |          |         |      |          |      |      |      |      |      |       |
| Token           | Cardano        | Stellar  | IOTA | NEO | NEM | Ethereum | EOS     | Lisk | Ethereum |      |      |      |      |      |       |
| 7D chg          | 4%             | 4%       | 3%   | 3%  | 2%  | 1%       | 0%      | (1%) | (2%)     | (3%) | (4%) | (4%) | (5%) | (5%) | (6%)  |
| % weight        | 4%             | 40%      | 2%   | 3%  | 1%  | 34%      | 9%      | 1%   | 2%       | 1%   | 1%   | 0%   | 3%   | 0%   | 0%    |
| Past 2 weeks... |                |          |      |     |     |          |         |      |          |      |      |      |      |      |       |
| Token           | Stratis        | Ethereum | IOTA | NEO | EOS | Cardano  | Stellar | Lisk | Ethereum |      |      |      |      |      |       |
| 14D chg         | 11%            | 1%       | 1%   | 1%  | 1%  | 0%       | (0%)    | (2%) | (3%)     | (5%) | (6%) | (7%) | (7%) | (8%) | (13%) |
| % weight        | 0%             | 34%      | 2%   | 3%  | 9%  | 4%       | 40%     | 1%   | 2%       | 1%   | 1%   | 3%   | 1%   | 0%   | 0%    |

Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

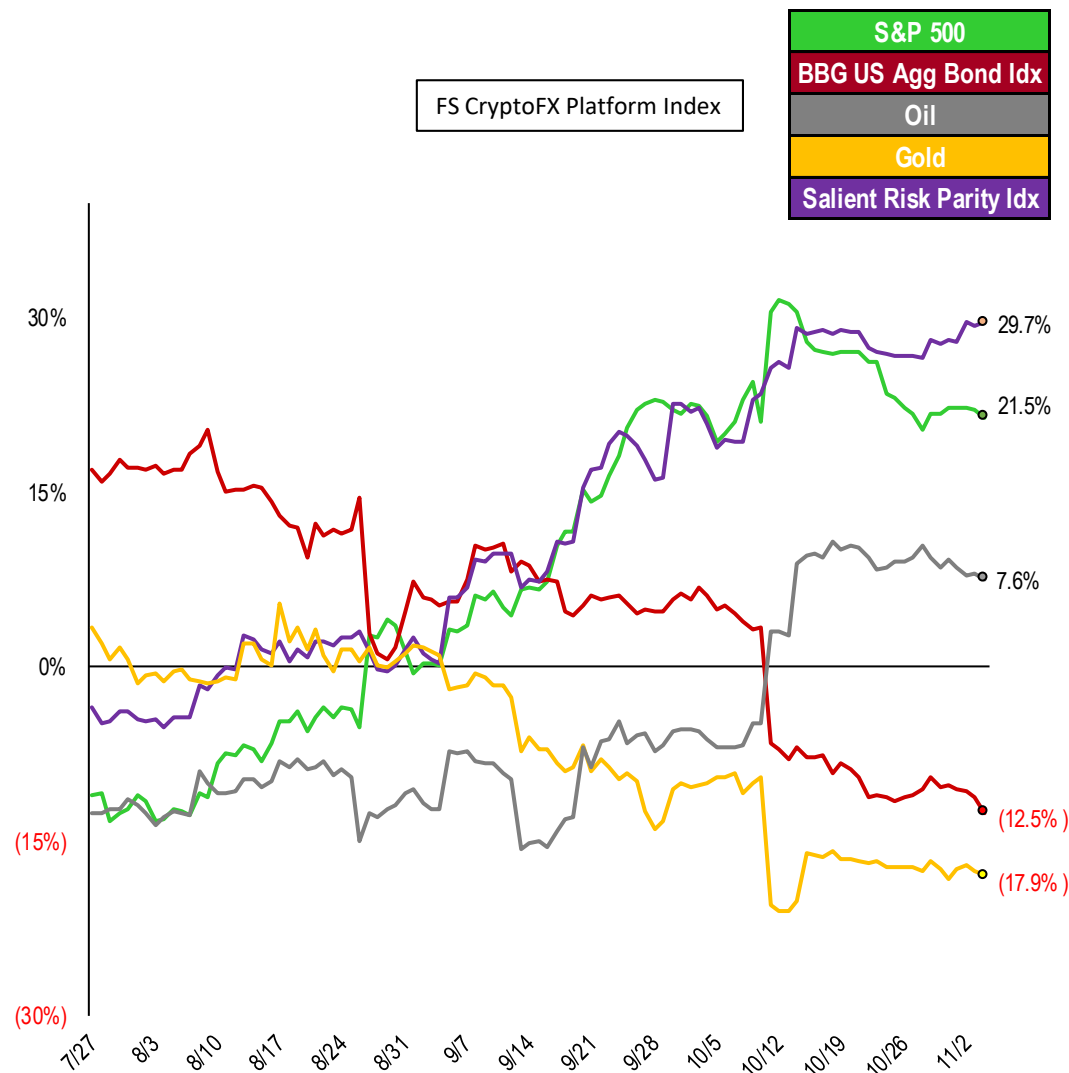
# Correlation FS Platform

The FS Crypto Platform index is designed to track the performance of cryptocurrencies which enable developers to create and use decentralized applications (dApps).

**The FS Platform Index is most correlated to S&P Risk Parity Index with a 90D correlation of 29.7%.**

**The FS Platform Index is least correlated to Gold with a 90D correlation of -17.9%.**

**Figure: 90D Rolling Correlation - FS Crypto Platform Correlation against Major Asset Classes**  
Over last 100 days



Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.



# Executive Summary

- Overview
- SIZE: FS Large-cap 10, FS Mid-cap 40, FS small-cap 250
- SECTOR: Commodities
- SECTOR: Platforms
- SECTOR: Exchanges
- SECTOR: Privacy
- SECTOR: Stable coins
- Chartbook: FS Large-cap 10 and FS Mid-cap 40

# Sectors Exchanges

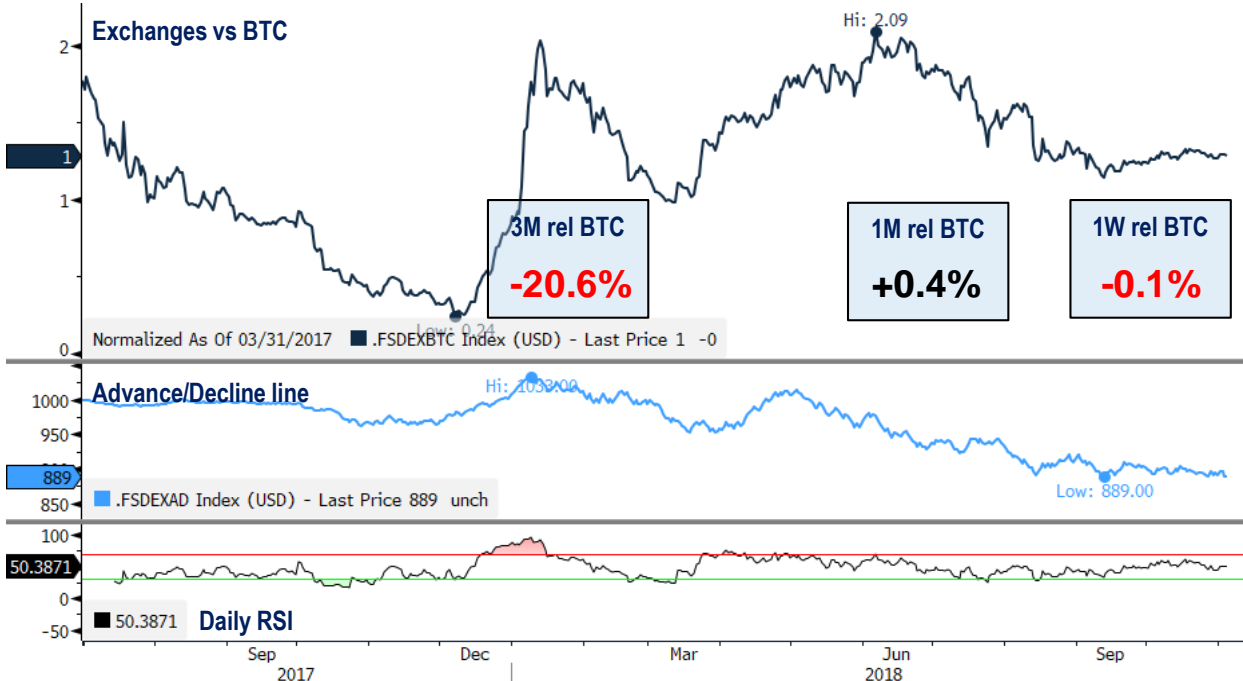
The FS Crypto Exchange index is designed to track the performance of cryptocurrencies/tokens associated with crypto centralized or decentralized exchanges.

Over the past week, the FS CryptoFX Exchange index was down 0.1% Relative to BTC. Over the past month, this index was up 0.4% Relative to BTC.

The two best performing constituents this index in the past week are AirSwap up 5.9% and Bancor up 2.3%.

The two worst performing constituents this index in the past week are Huobi Token down 5.0% and 0x down 4.6%.

Figure: FS Crypto Exchanges Price Ratio to BTC  
Past 12M



|                        | Best ← 1 2 3 4 5 6 7 Worst |        |              |               |         |             |               |
|------------------------|----------------------------|--------|--------------|---------------|---------|-------------|---------------|
| <b>Past 1 week...</b>  |                            |        |              |               |         |             |               |
| Token                  | AirSwap                    | Bancor | Binance Coin | QASH          | 0x      | Huobi Token | Kyber Network |
| 7D chg                 | 6%                         | 2%     | (0%)         | (2%)          | (5%)    | (5%)        | (11%)         |
| % weight               | 1%                         | 3%     | 48%          | 6%            | 20%     | 20%         | 2%            |
| <b>Past 2 weeks...</b> |                            |        |              |               |         |             |               |
| Token                  | Bancor                     | QASH   | Binance Coin | Kyber Network | AirSwap | Huobi Token | 0x            |
| 14D chg                | 5%                         | (1%)   | (1%)         | (2%)          | (3%)    | (6%)        | (10%)         |
| % weight               | 3%                         | 6%     | 48%          | 2%            | 1%      | 20%         | 20%           |

Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

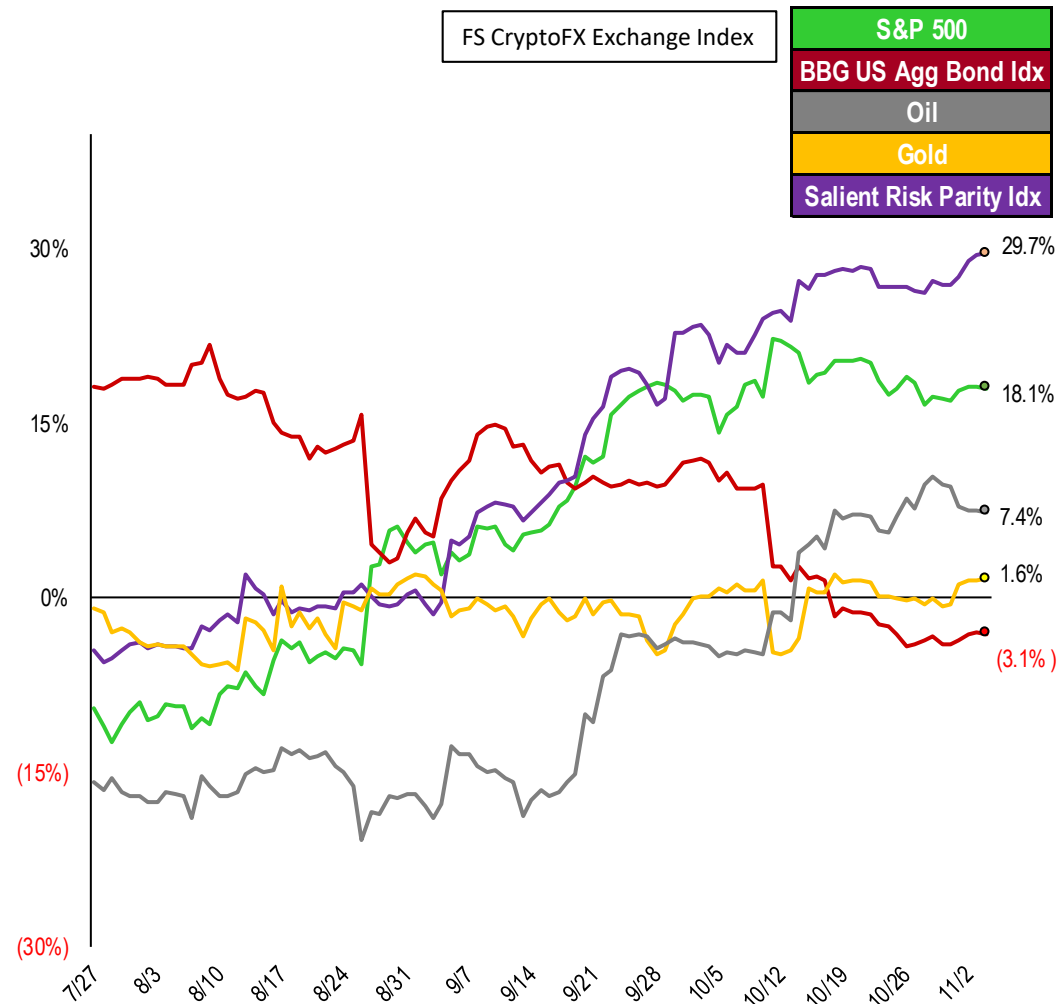
# Correlation FS Exchange

The FS Crypto Exchange index is designed to track the performance of cryptocurrencies/tokens associated with crypto centralized or decentralized exchanges.

The FS Exchange Index is most correlated to S&P Risk Parity Index with a 90D correlation of 29.7%.

The FS Exchange Index is least correlated to BBG US Agg Bond Index with a 90D correlation of -3.1%.

**Figure: 90D Rolling Correlation - FS Crypto Exchange Correlation against Major Asset Classes**  
Over last 100 days



Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

# Executive Summary

- Overview
- SIZE: FS Large-cap 10, FS Mid-cap 40, FS small-cap 250
- SECTOR: Commodities
- SECTOR: Platforms
- SECTOR: Exchanges
- SECTOR: Privacy
- SECTOR: Stable coins
- Chartbook: FS Large-cap 10 and FS Mid-cap 40

# Sectors

## Privacy

The FS Crypto Privacy index is designed to track the performance of cryptocurrencies with anonymity or privacy features.

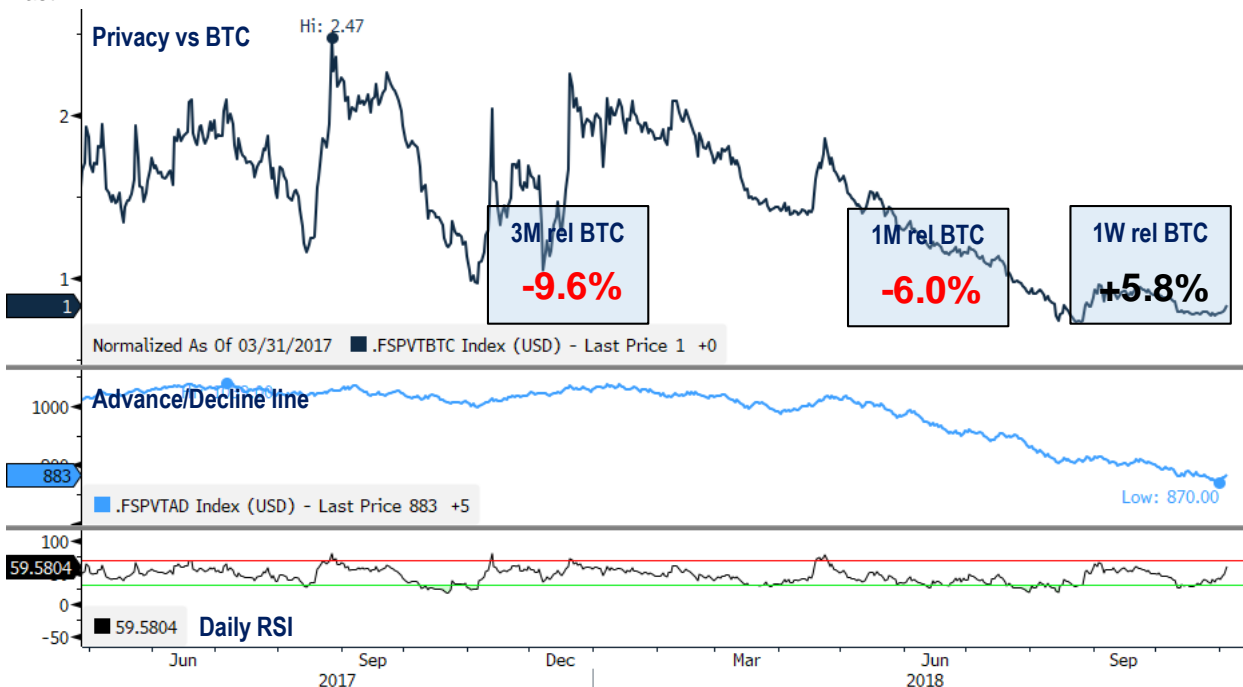
Over the past week, the FS CryptoFX Privacy index was up 5.8% Relative to BTC. Over the past month, this index was down 6.0% Relative to BTC.

The two best performing constituents this index in the past week are Monero up 6.5% and Dash up 4.2%.

The two worst performing constituents this index in the past week are Zcash down 2.4% and Bytecoin up 3.7%

Figure: FS Crypto Privacy Price Ratio to BTC

Past 12M



|                        | Best ← → Worst |      |          |       |                 |
|------------------------|----------------|------|----------|-------|-----------------|
| Rank                   | 1              | 2    | 3        | 4     | 5               |
| <b>Past 1 week...</b>  |                |      |          |       |                 |
| Token                  | Monero         | Dash | Bytecoin | Zcash | Bitcoin Private |
| 7D chg                 | 6%             | 4%   | 4%       | (2%)  | (9%)            |
| % weight               | 45%            | 33%  | 6%       | 15%   | 1%              |
| <b>Past 2 weeks...</b> |                |      |          |       |                 |
| Token                  | Monero         | Dash | Bytecoin | Zcash | Bitcoin Private |
| 14D chg                | 6%             | 5%   | (2%)     | (4%)  | (12%)           |
| % weight               | 45%            | 33%  | 6%       | 15%   | 1%              |

Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

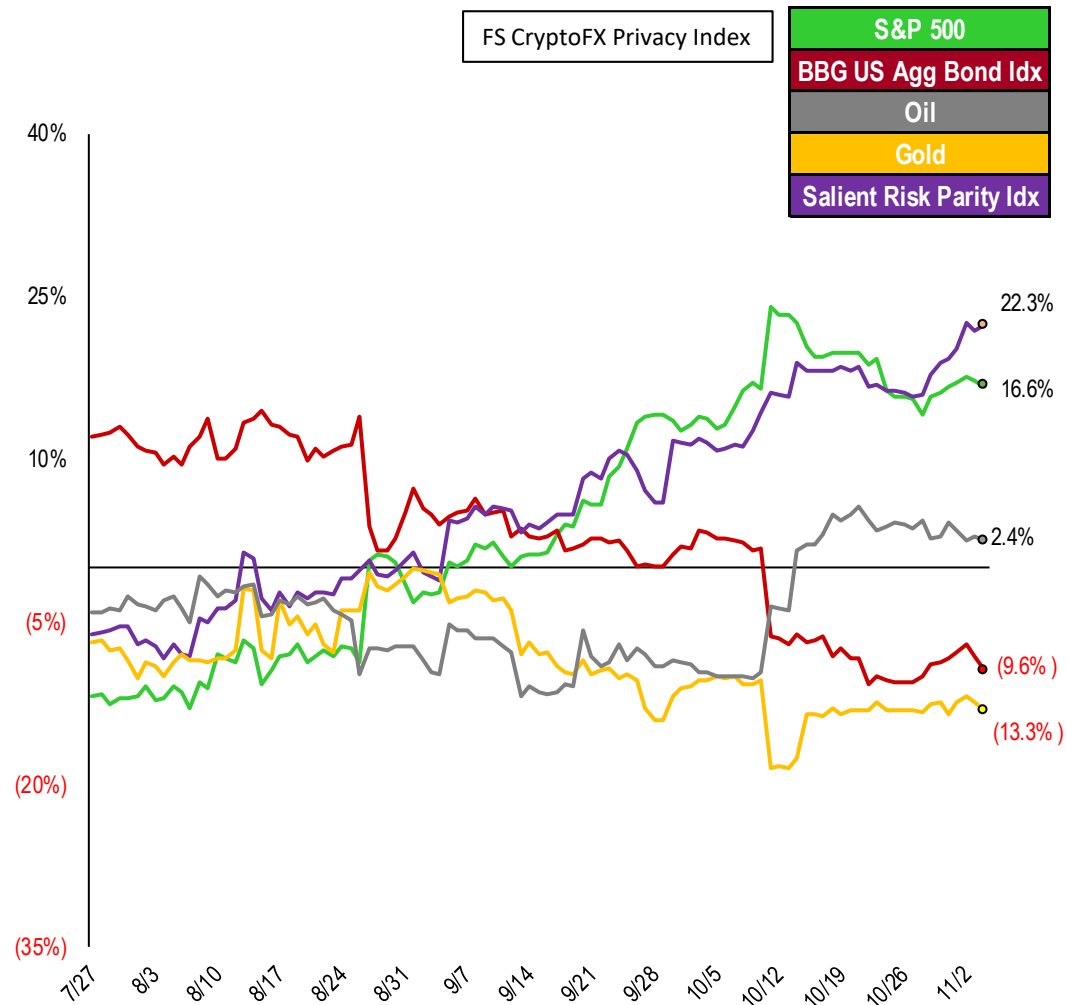
# Correlation FS Privacy

The FS Crypto Privacy index is designed to track the performance of cryptocurrencies with anonymity or privacy features.

The FS Privacy Index is most correlated to S&P Risk Parity Index with a 90D correlation of 22.3%.

The FS Privacy Index is least correlated to Gold with a 90D correlation of -13.3%.

**Figure: 90D Rolling Correlation - FS Crypto Privacy Correlation against Major Asset Classes**  
Over last 100 days



Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

# Executive Summary

- Overview
- SIZE: FS Large-cap 10, FS Mid-cap 40, FS small-cap 250
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- SECTOR: Exchanges
- SECTOR: Privacy
- SECTOR: Stable coins
- Chartbook: FS Large-cap 10 and FS Mid-cap 40



# Sectors

## Stable Coins

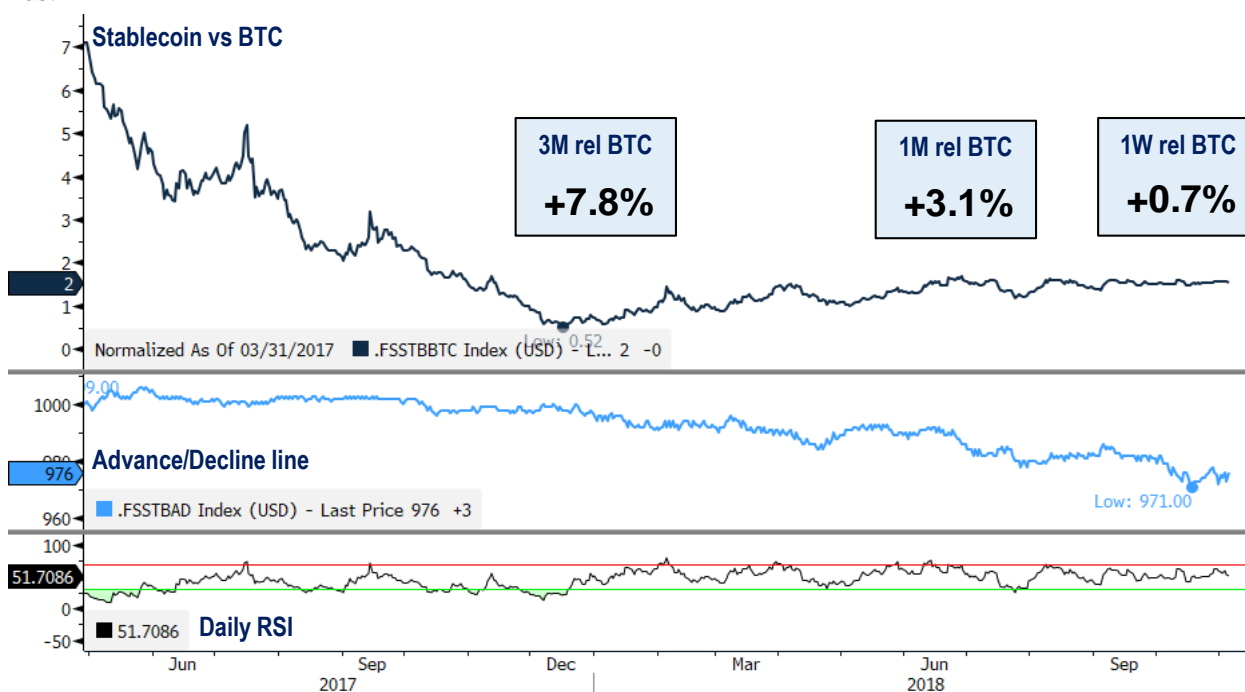
The FS CryptoFX Stable index is designed to track the performance of cryptocurrencies which are designed to be "stable".

Over the past week, the FS CryptoFX Stable Coin index was up 0.7% Relative to BTC. Over the past month, this index was up 3.1% Relative to BTC.

In the past week, Tether was down 1.0% and DAI was down 2.1%, in dollar terms.

Figure: FS Crypto Stable Price Ratio to BTC

Past 12M



| Rank            | 1      | 2    | 3       |
|-----------------|--------|------|---------|
| Past 1 week...  |        |      |         |
| Token           | Tether | DAI  | TrueUSD |
| 7D chg          | (1%)   | (2%) | (3%)    |
| % weight        | 89%    | 3%   | 8%      |
| Past 2 weeks... |        |      |         |
| Token           | Tether | DAI  | TrueUSD |
| 14D chg         | 1%     | (3%) | (3%)    |
| % weight        | 89%    | 3%   | 8%      |

Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

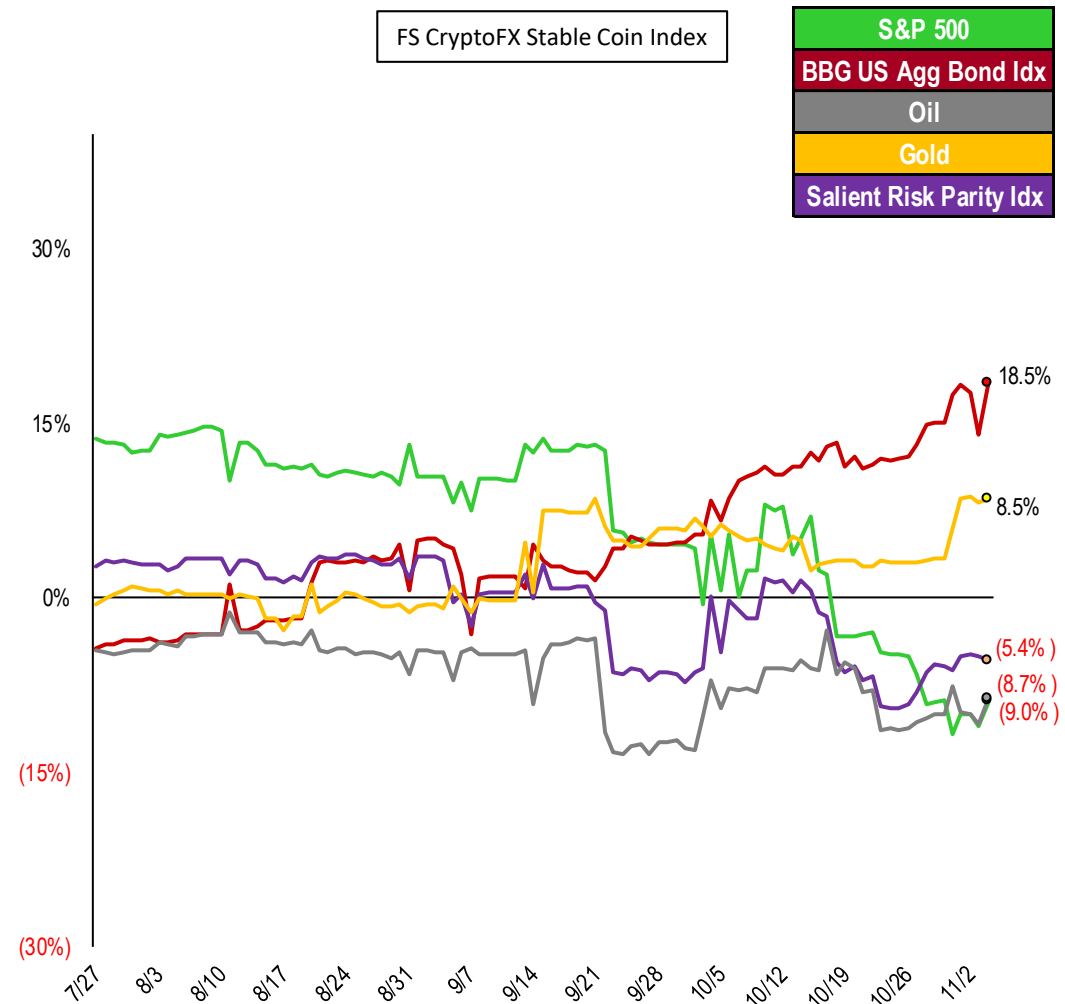
# Correlation FS Stable Coin

The FS CryptoFX Stable index is designed to track the performance of cryptocurrencies which are designed to be “stable”.

The FS Stable Coin Index is most correlated to BBG US Agg Bond Index with a 90D correlation of 18.5%.

The FS Stable Coin Index is least correlated to S&P 500 with a 90D correlation of -9.0%.

**Figure: 90D Rolling Correlation - FS Crypto Stable Correlation against Major Asset Classes**  
Over last 100 days



Source: Coinmarketcap.com, Bloomberg, other sources and Fundstrat.

# Executive Summary

- Overview
  - SIZE: FS Large-cap 10, FS Mid-cap 40, FS small-cap 250
  - SECTOR: Commodities
  - SECTOR: Platforms
  - SECTOR: Exchanges
  - SECTOR: Privacy
  - SECTOR: Stable coins
- Chartbook: FS Large-cap 10 and FS Mid-cap 40

# Technical Charts

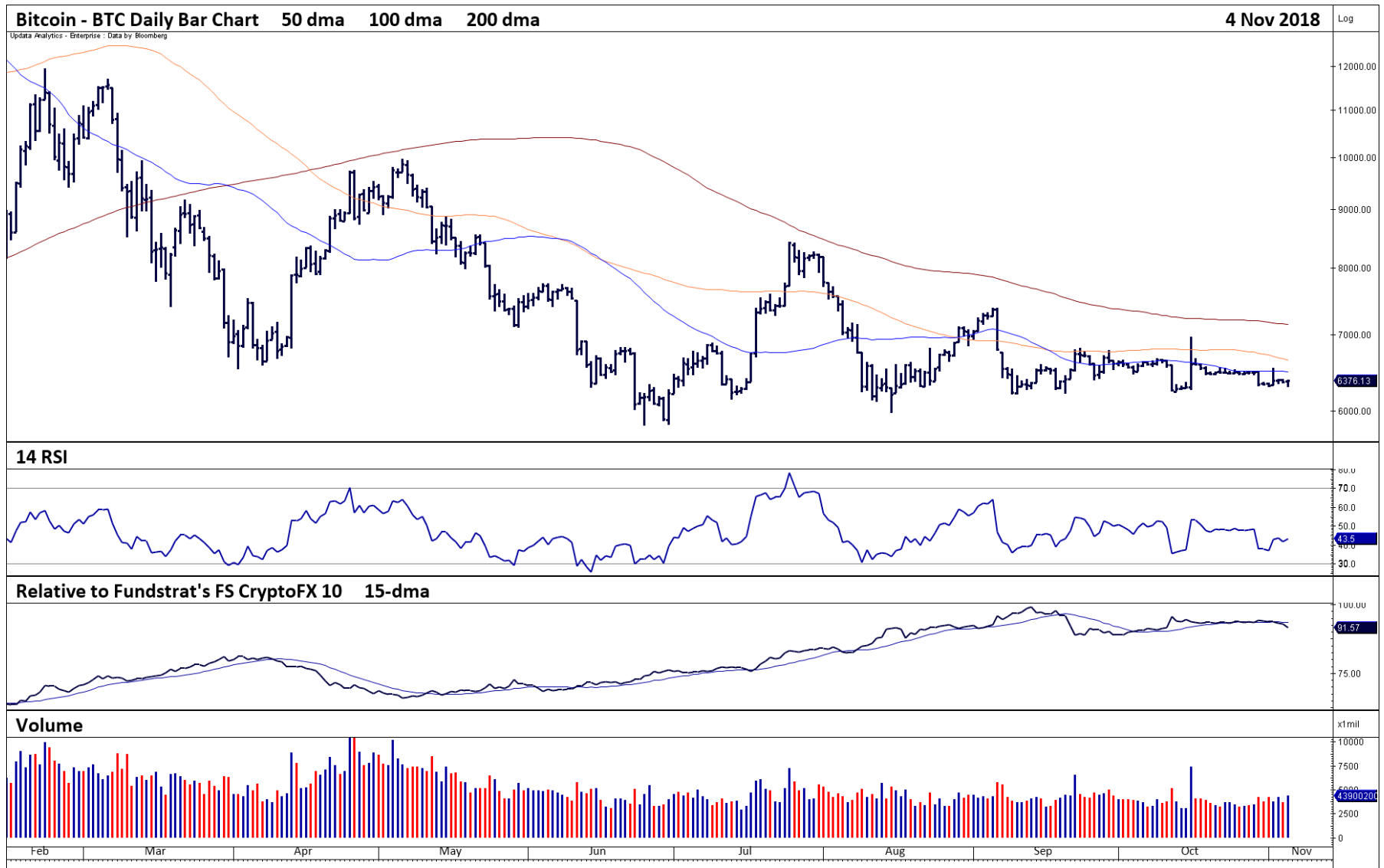
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**FS CryptoFX 10 Index Component Coin Charts**

**FS CryptoFX 40 Index Component Coin Charts**

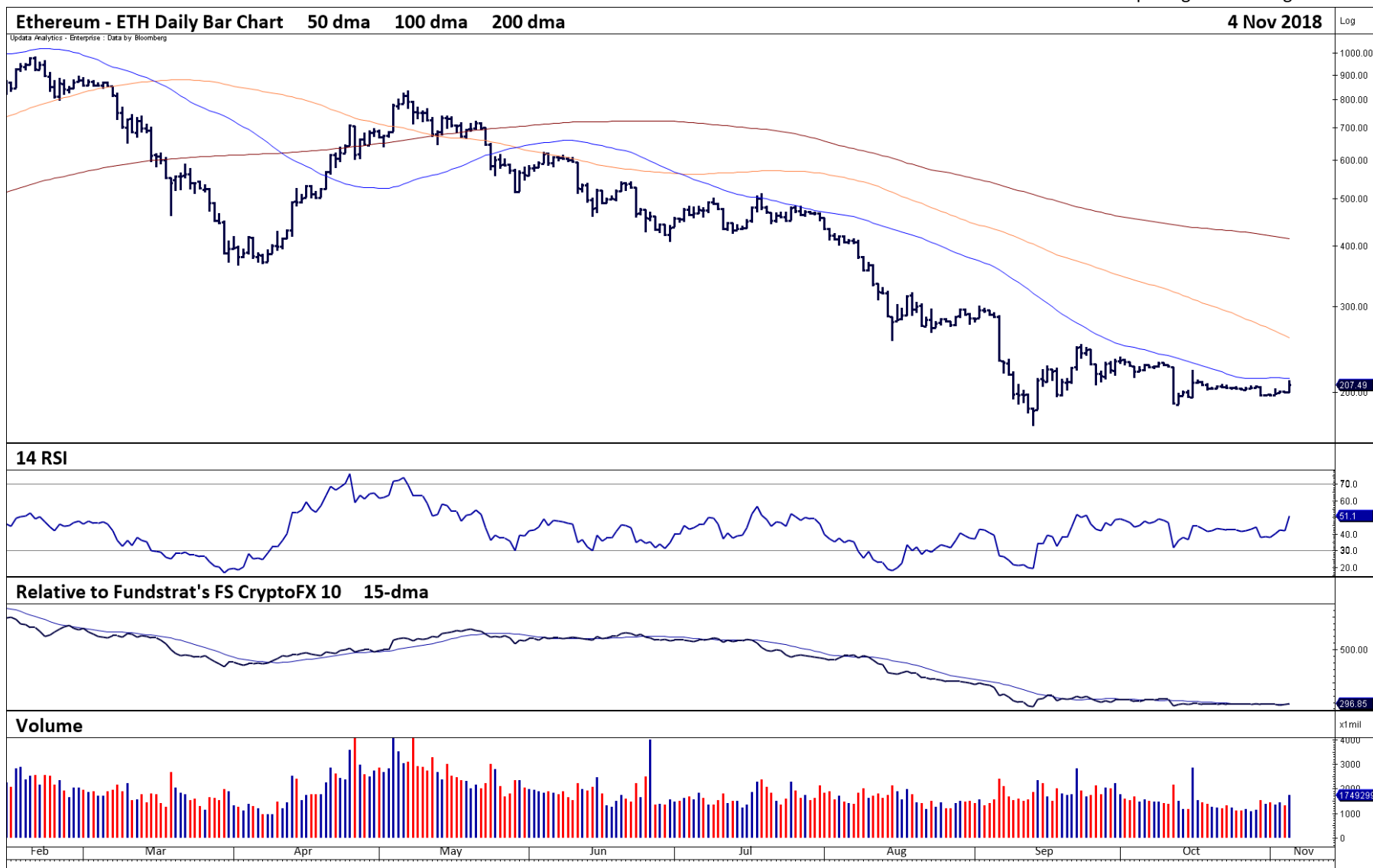
# TECHNICAL: FS Crypto FX 10 Index Currency Charts - Bitcoin

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 10 Index Currency Charts - Ethereum

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 10 Index Currency Charts - XRP

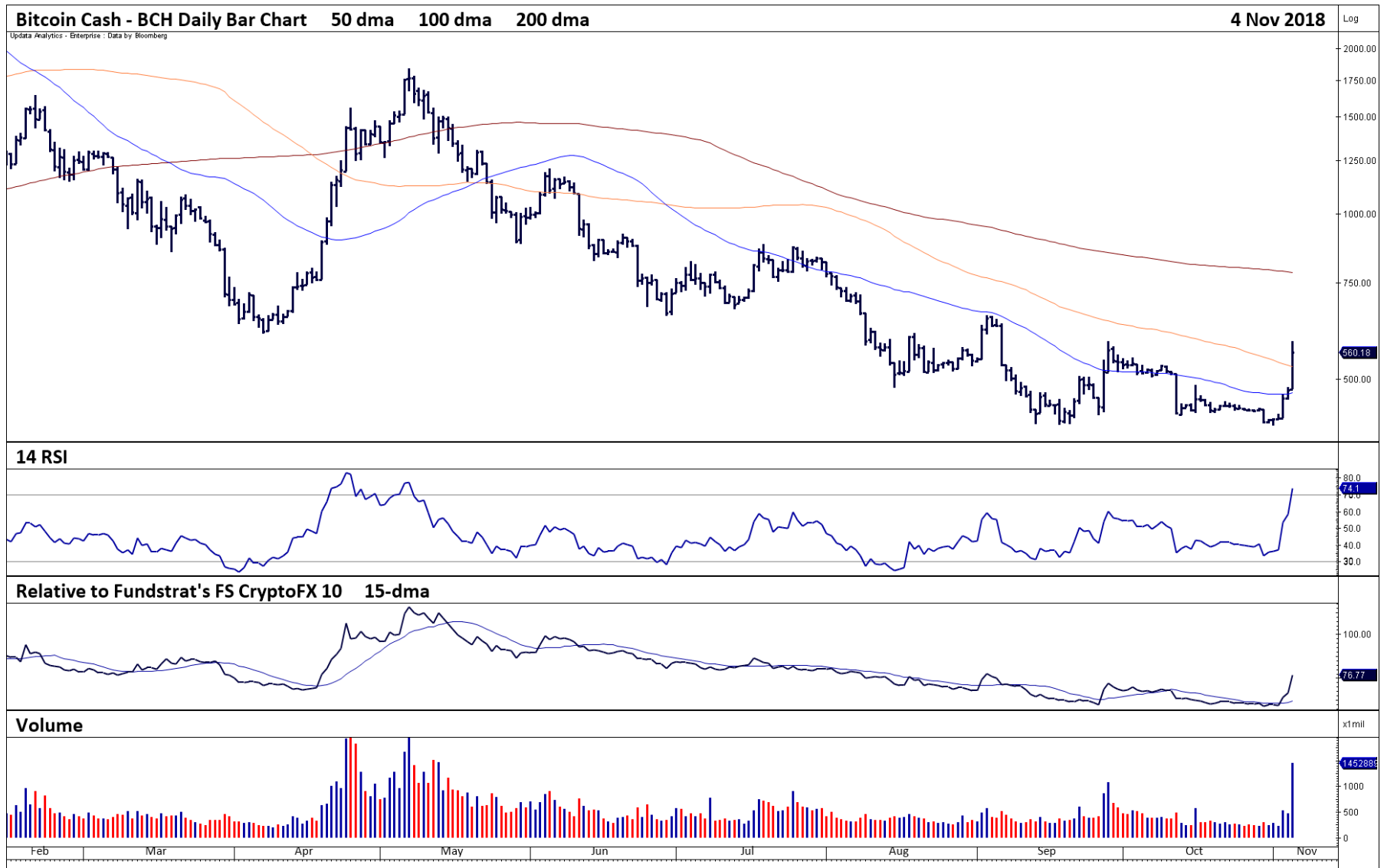
Token pricing as of midnight UTC





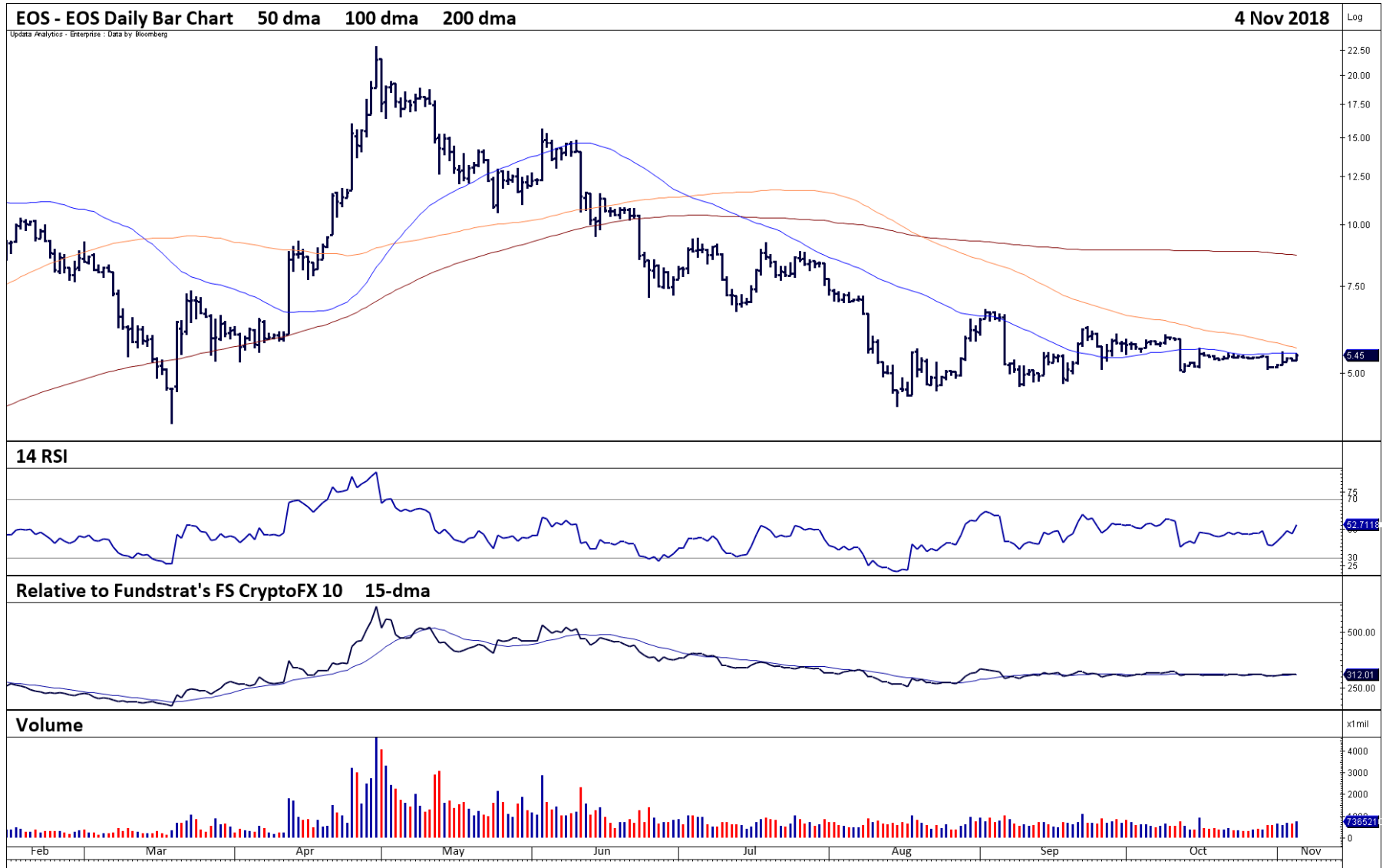
# TECHNICAL: FS Crypto FX 10 Index Currency Charts – Bitcoin Cash

Token pricing as of midnight UTC



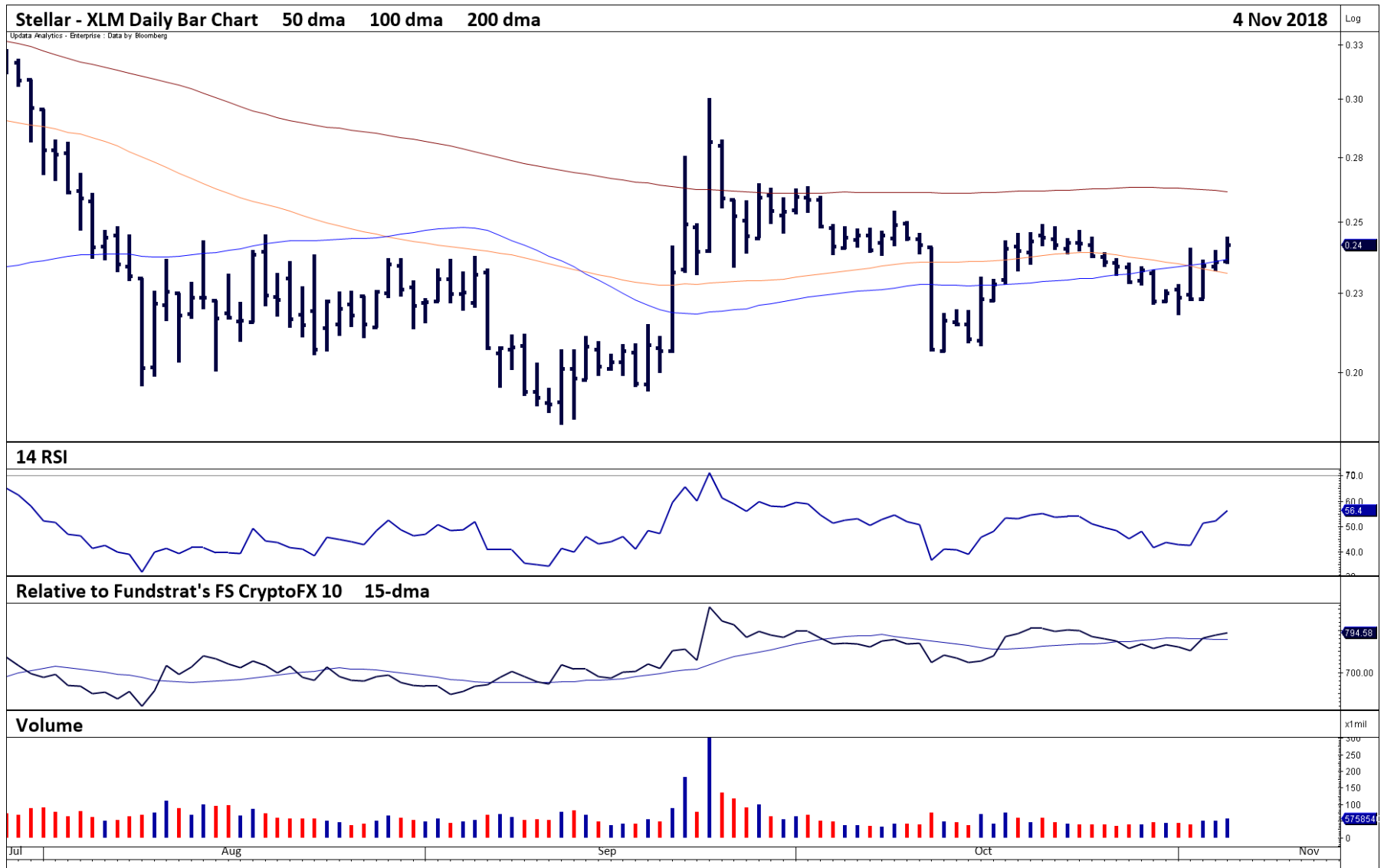
# TECHNICAL: FS Crypto FX 10 Index Currency Charts - EOS

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 10 Index Currency Charts - Stellar

Token pricing as of midnight UTC



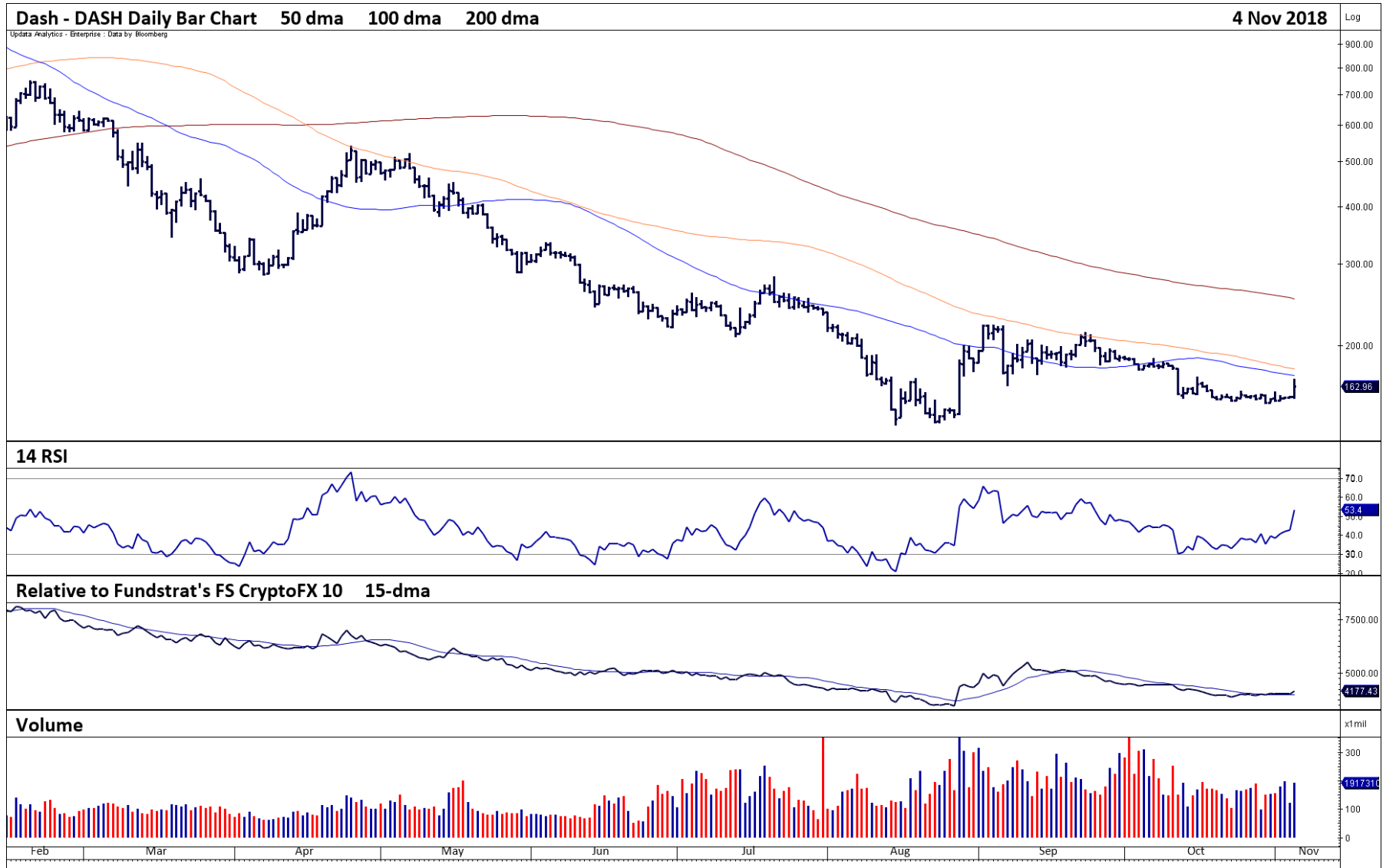
# TECHNICAL: FS Crypto FX 10 Index Currency Charts - Litecoin

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 10 Index Currency Charts - Dash

Token pricing as of midnight UTC



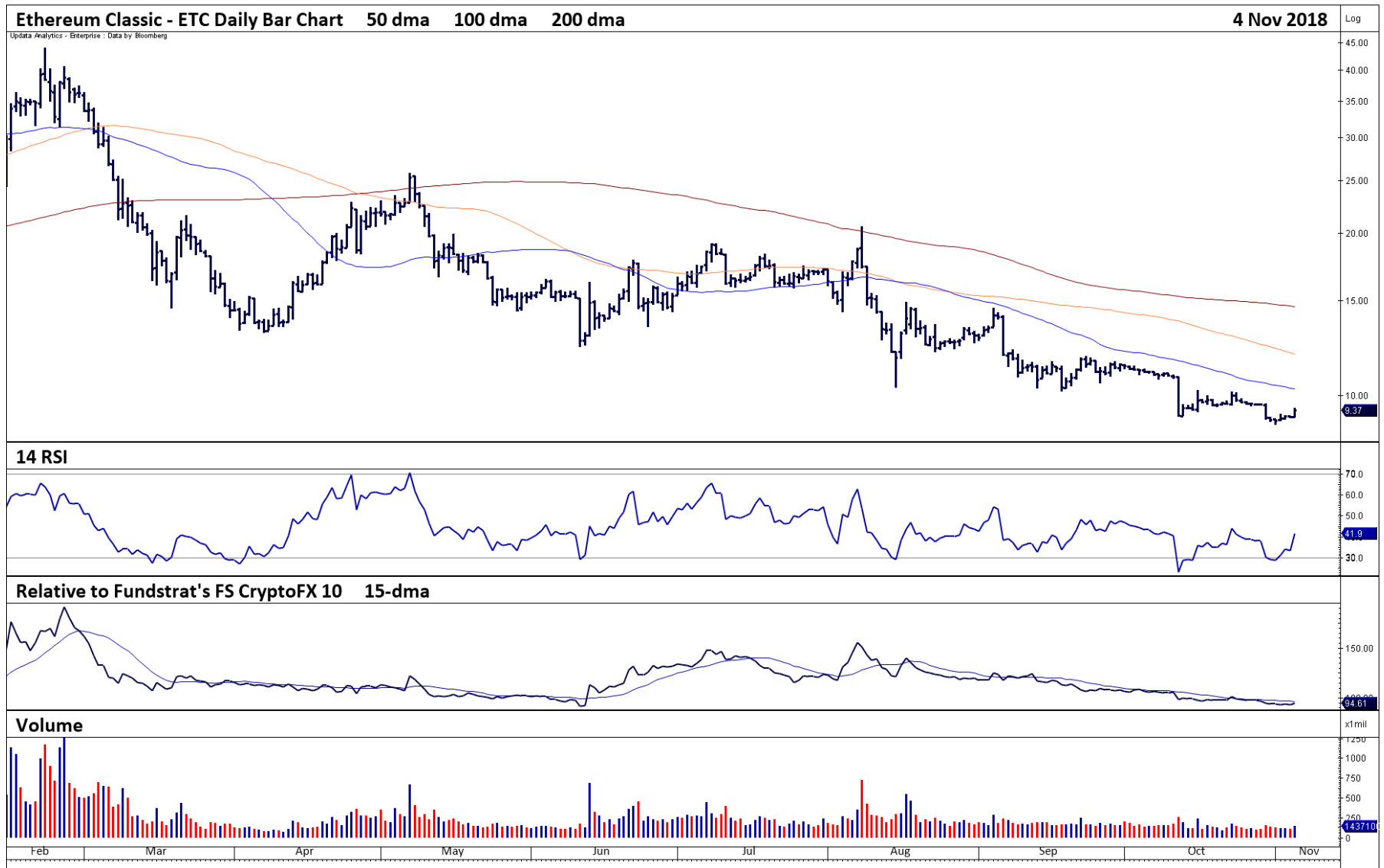
# TECHNICAL: FS Crypto FX 10 Index Currency Charts - TRON

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 10 Index Currency Charts – Ethereum Classic

Token pricing as of midnight UTC





# Technical Charts

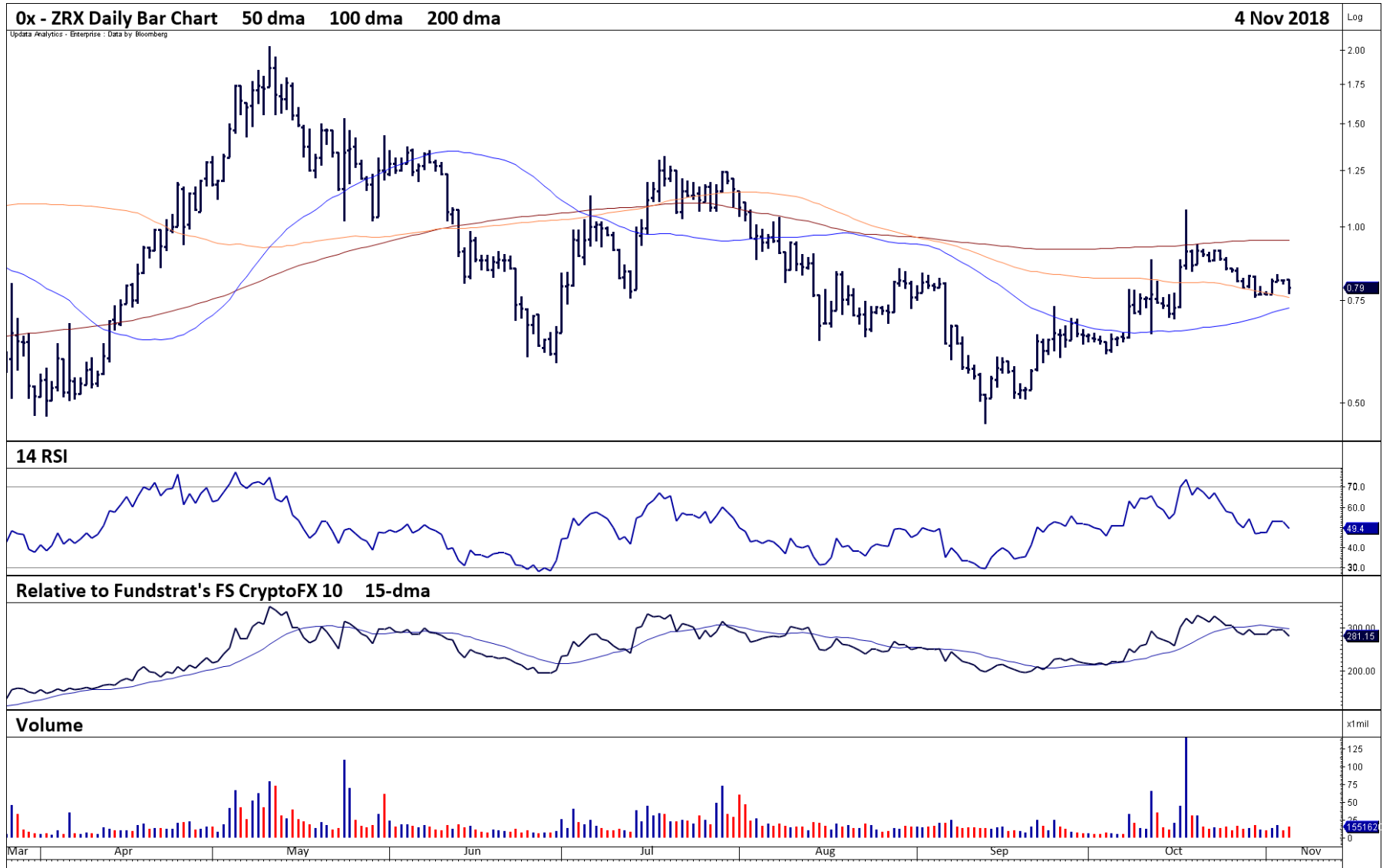
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**FS CryptoFX 10 Index Component Coin Charts**

**FS CryptoFX 40 Index Component Coin Charts**

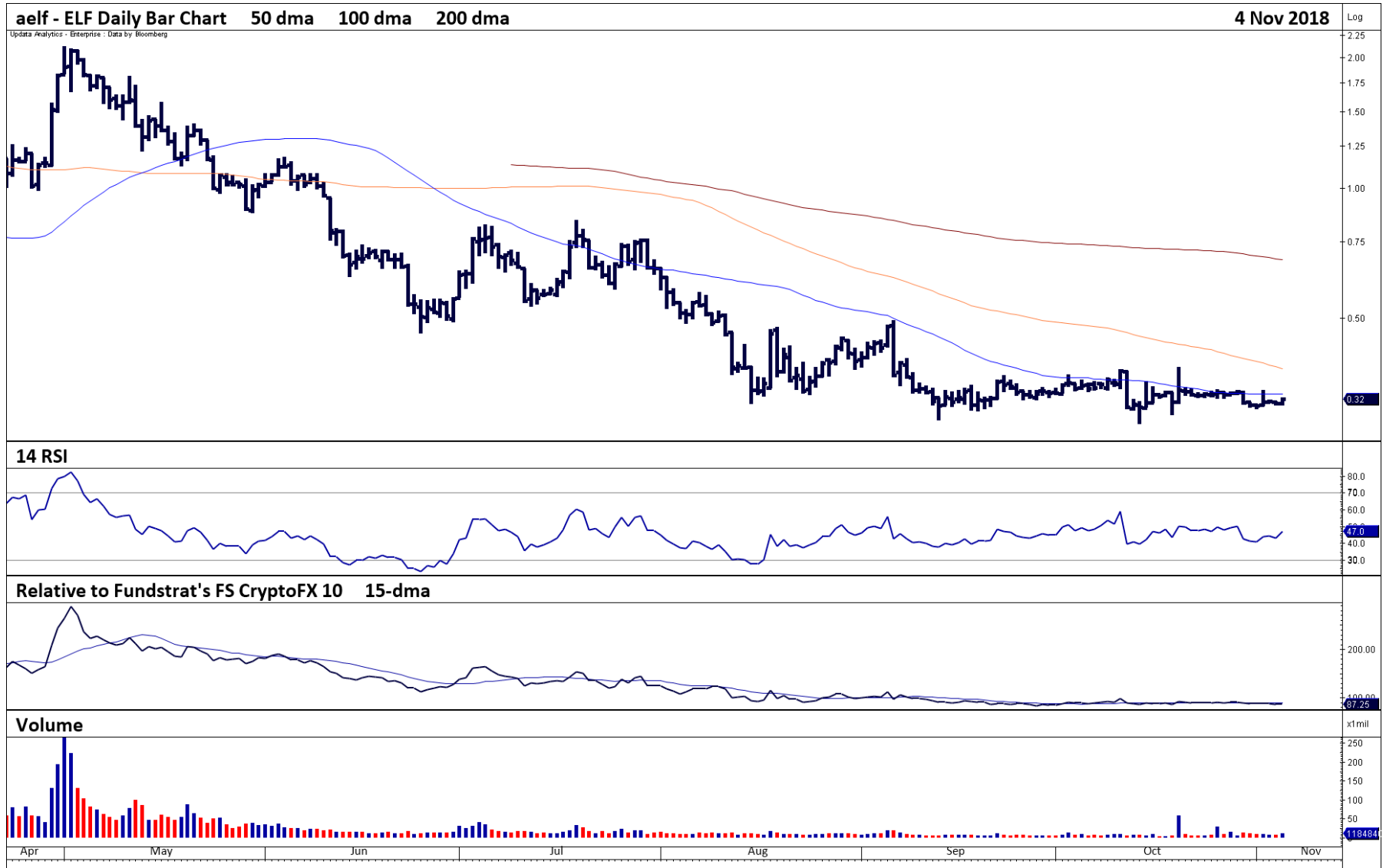
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Ox

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 40 Index Currency Charts - aelf

Token pricing as of midnight UTC



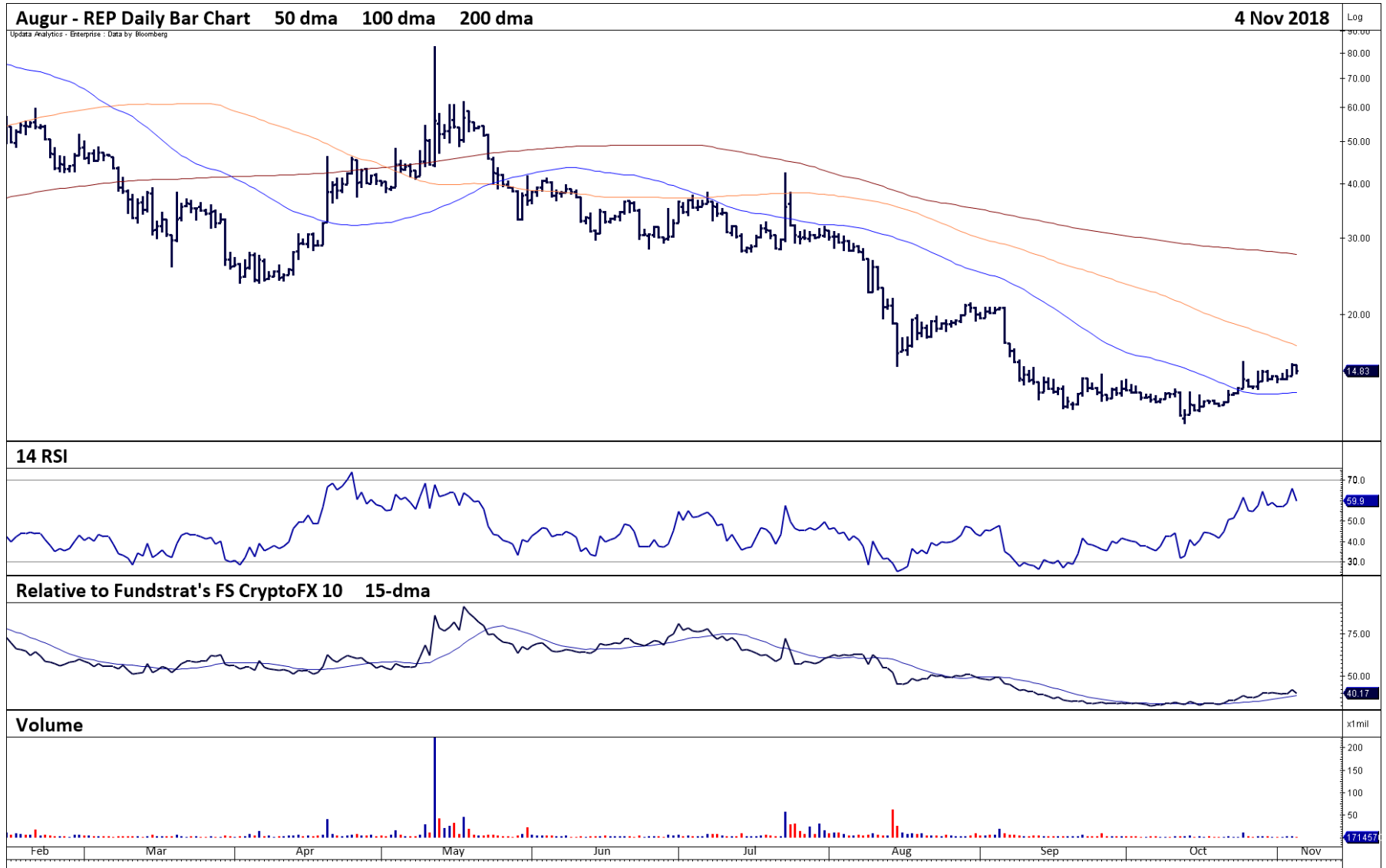
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Aeternity

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Aug

Token pricing as of midnight UTC



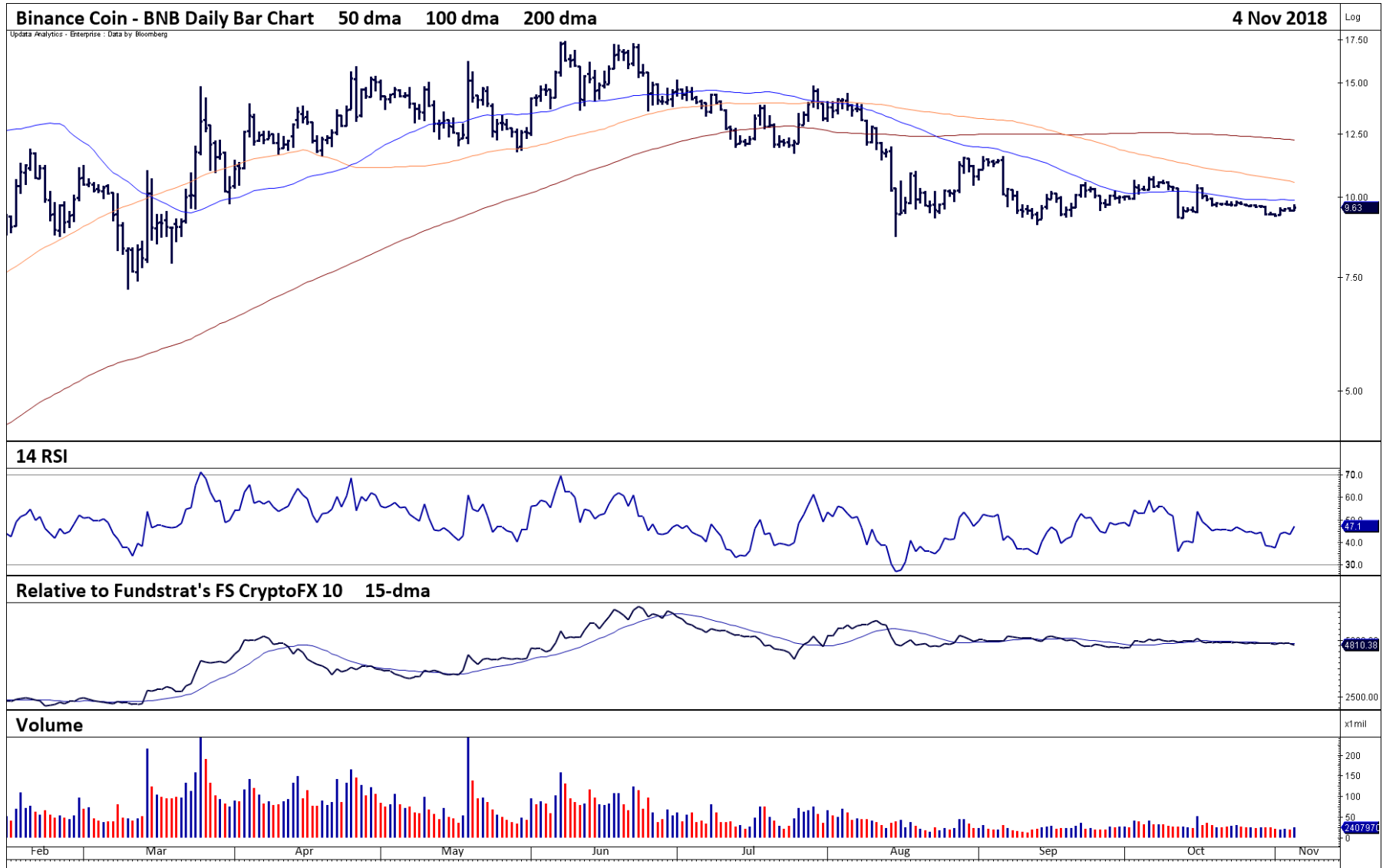
# TECHNICAL : FS Crypto FX 40 Index Currency Charts – Basic Attention

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 40 Index Currency Charts – Binance Coin

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 40 Index Currency Charts – Bitcoin Diamond

Token pricing as of midnight UTC





# TECHNICAL: FS Crypto FX 40 Index Currency Charts – Bitcoin Gold

Token pricing as of midnight UTC



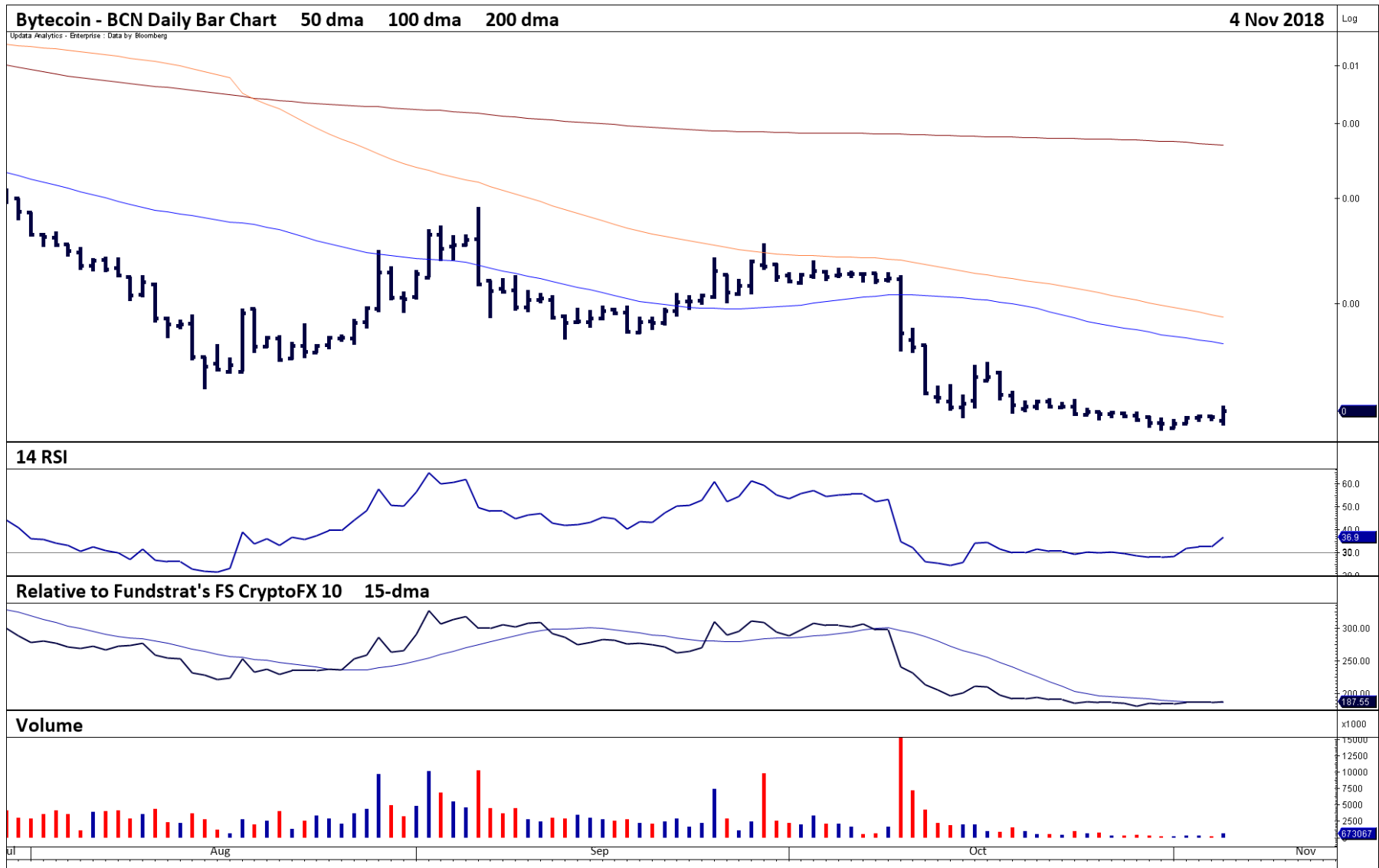
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - BitShares

Token pricing as of midnight UTC



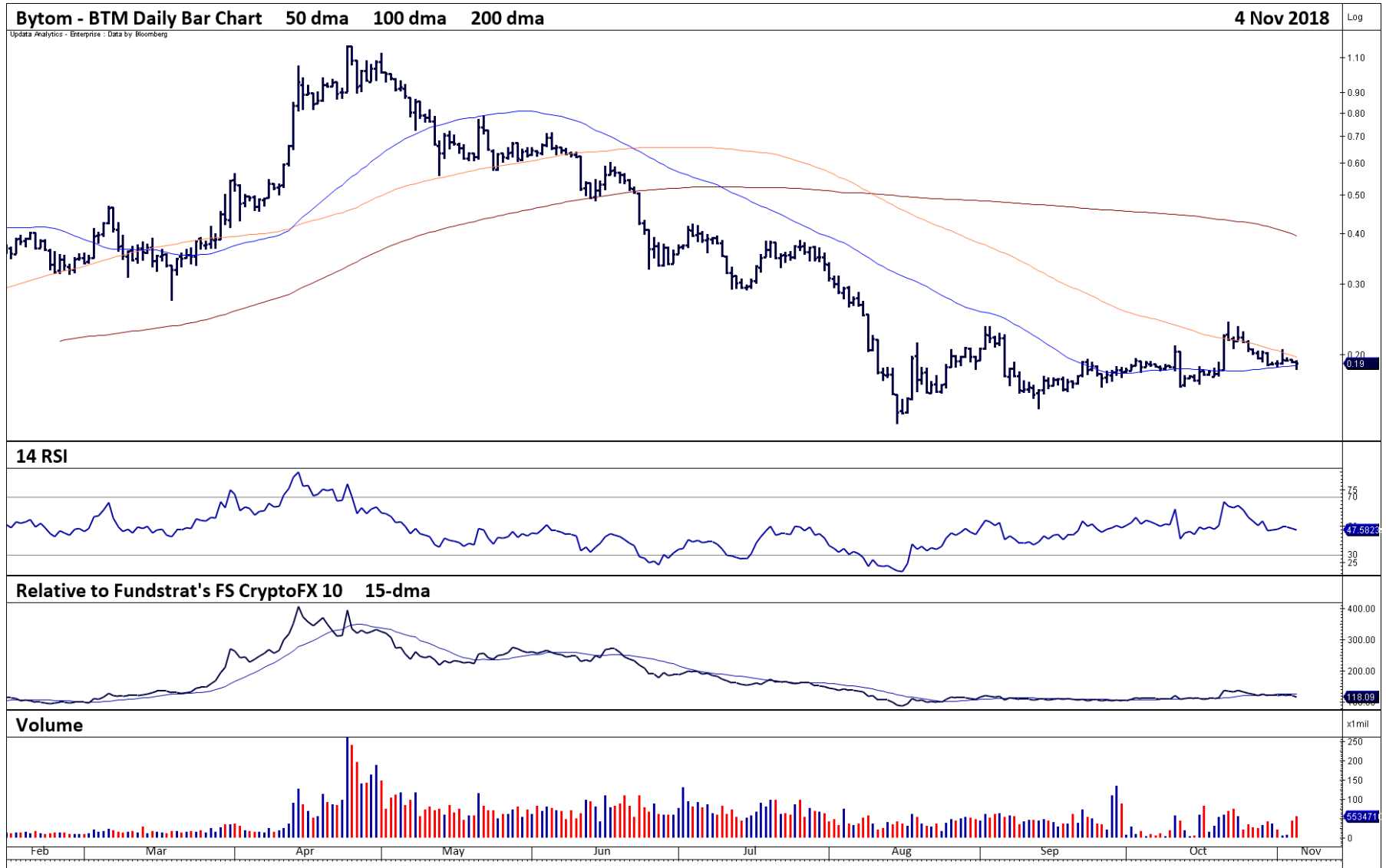
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Bytecoin

Token pricing as of midnight UTC



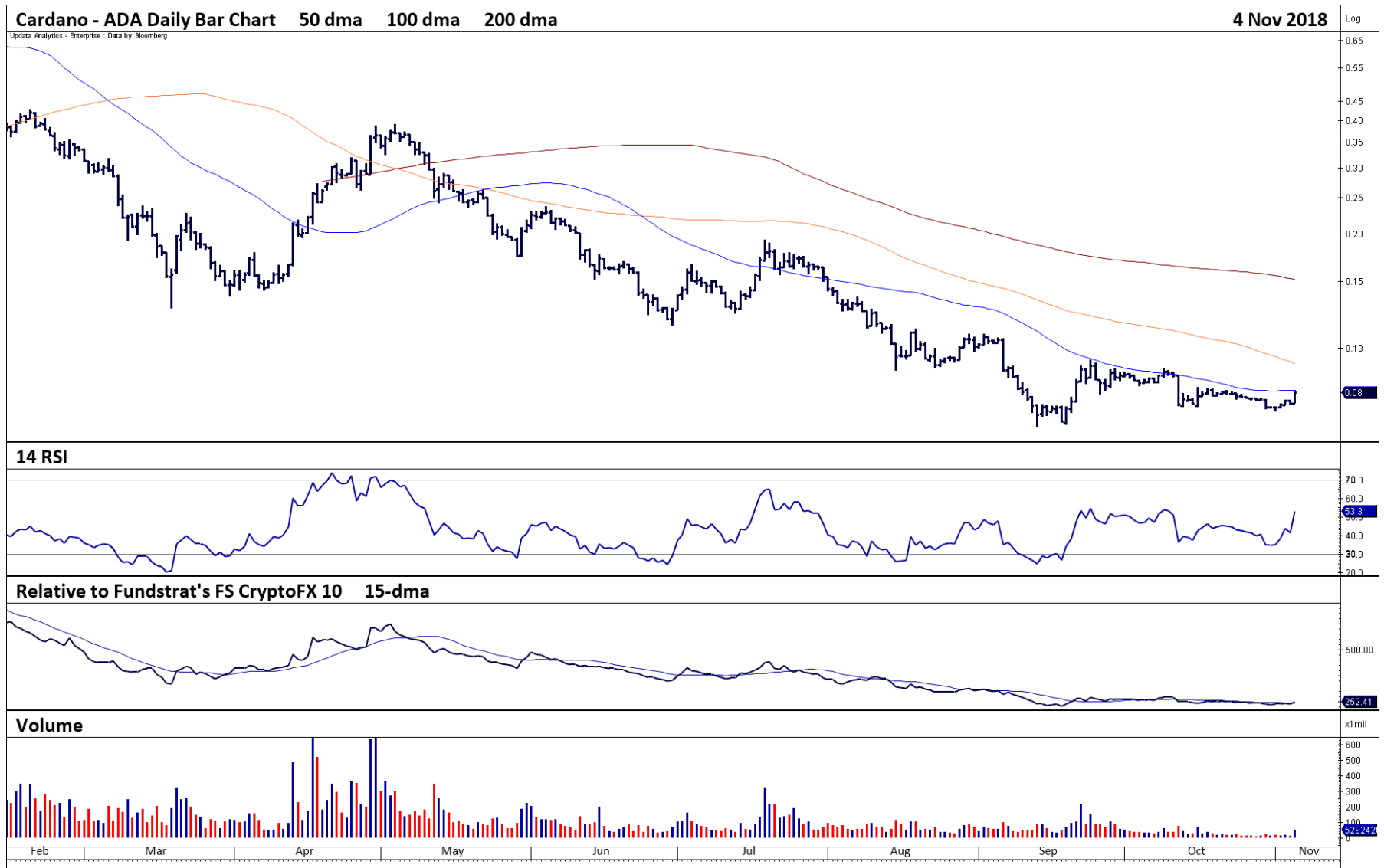
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Bytom

Token pricing as of midnight UTC



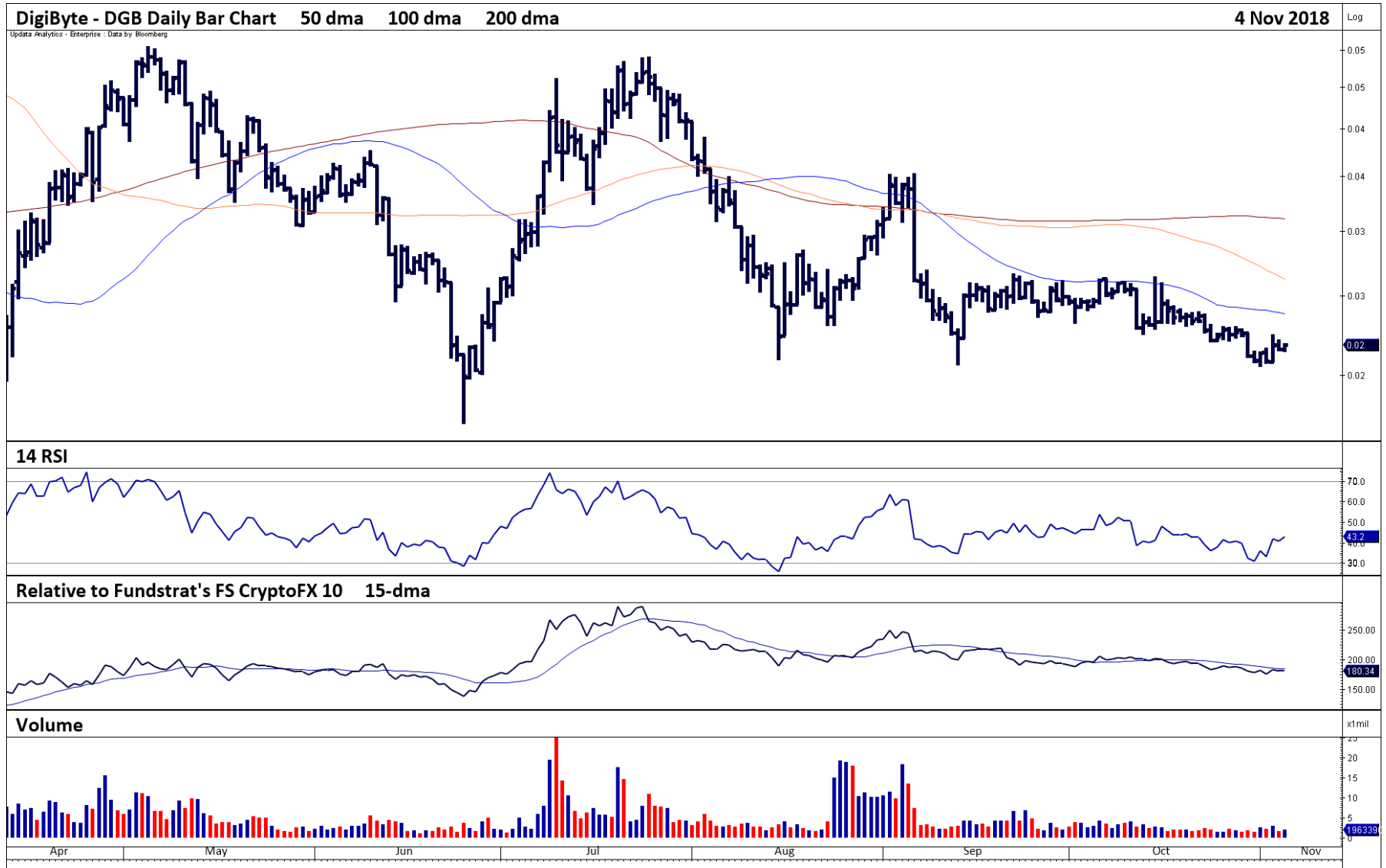
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Cardano

Token pricing as of midnight UTC



# TECHNICAL : FS Crypto FX 40 Index Currency Charts - DigiByte

Token pricing as of midnight UTC



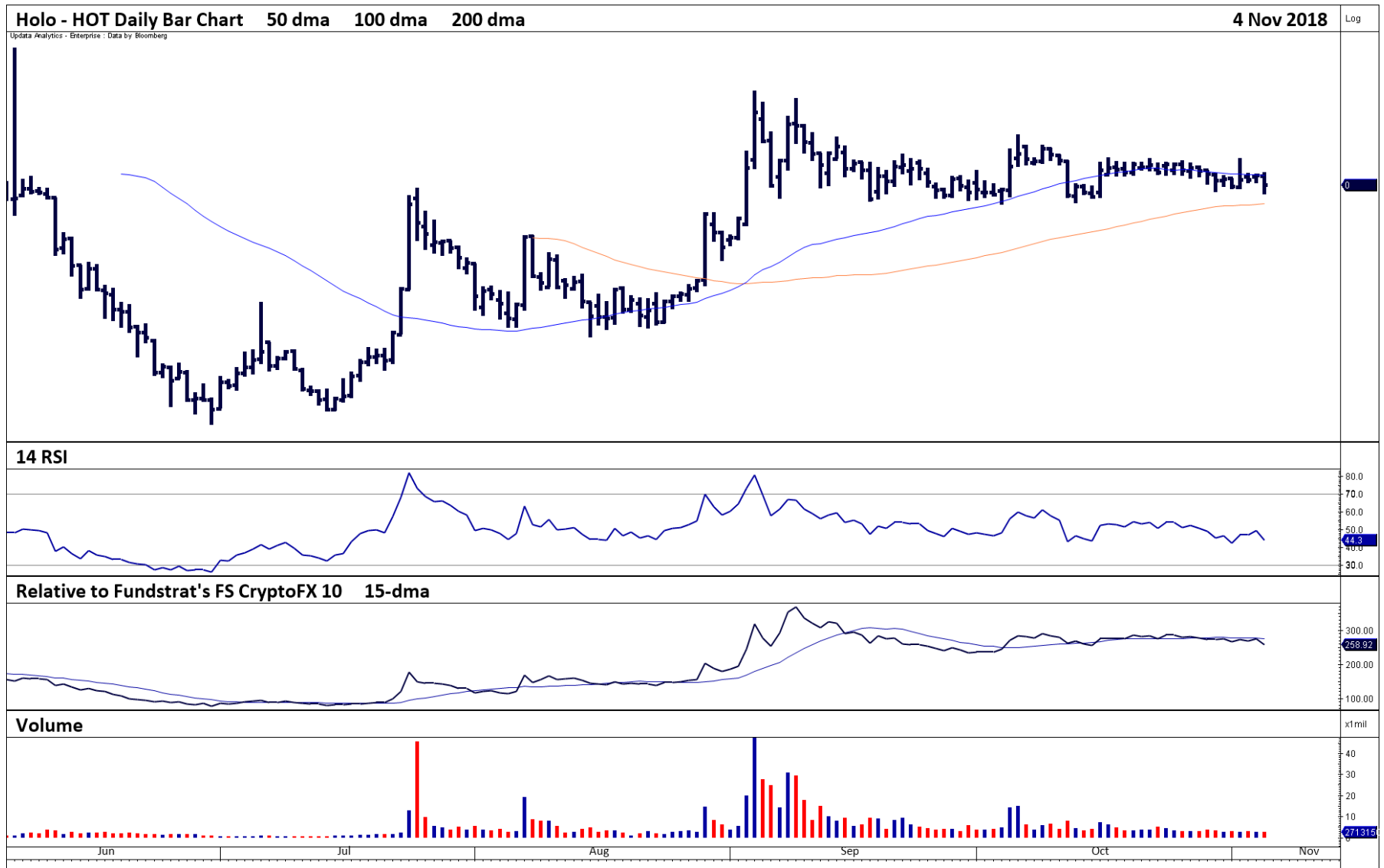
## TECHNICAL: FS Crypto FX 40 Index Currency Charts - Dogecoin

Token pricing as of midnight UTC



# TECHNICAL : FS Crypto FX 40 Index Currency Charts - Holo

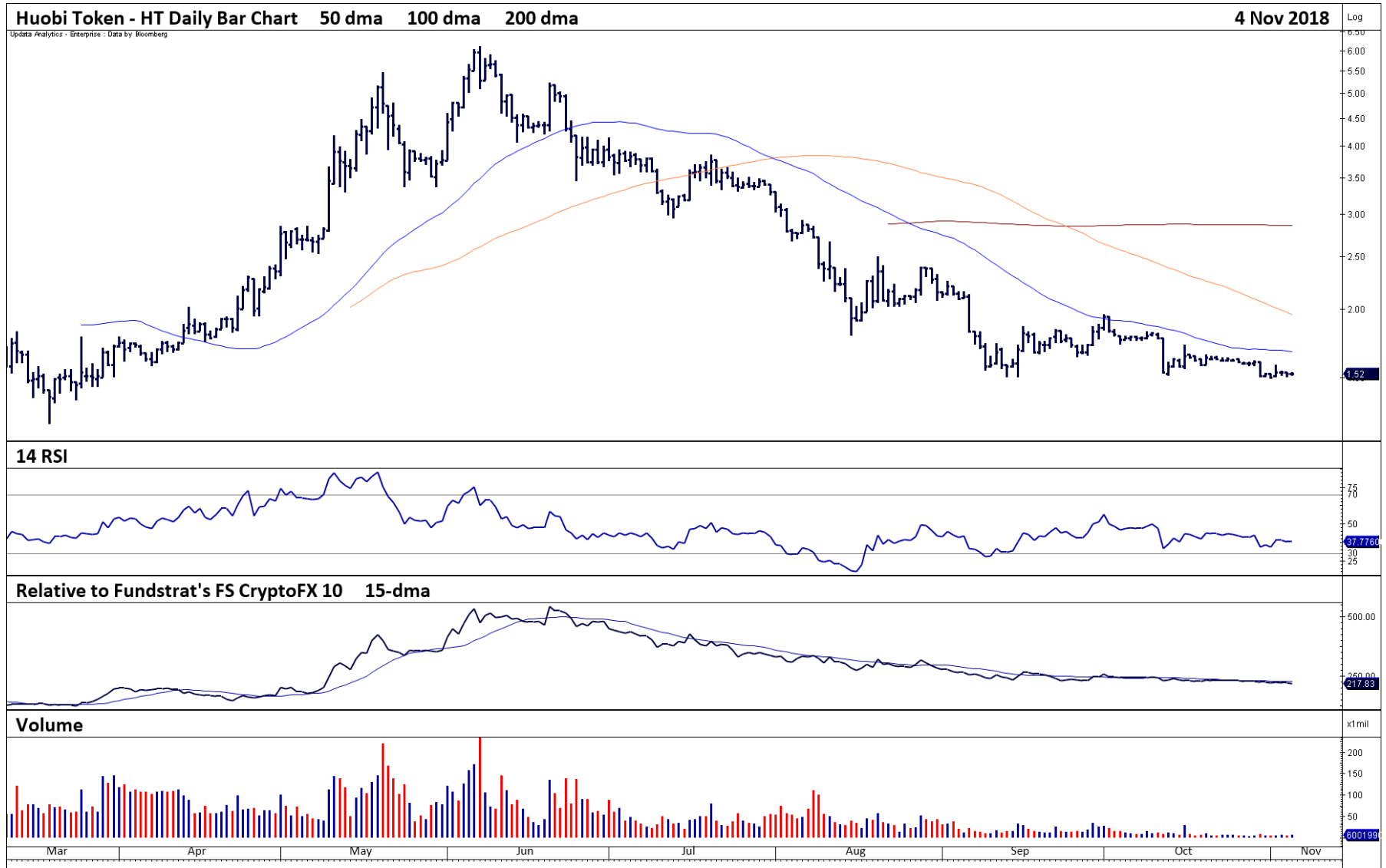
Token pricing as of midnight UTC





# TECHNICAL : FS Crypto FX 40 Index Currency Charts –Huobi Token

Token pricing as of midnight UTC



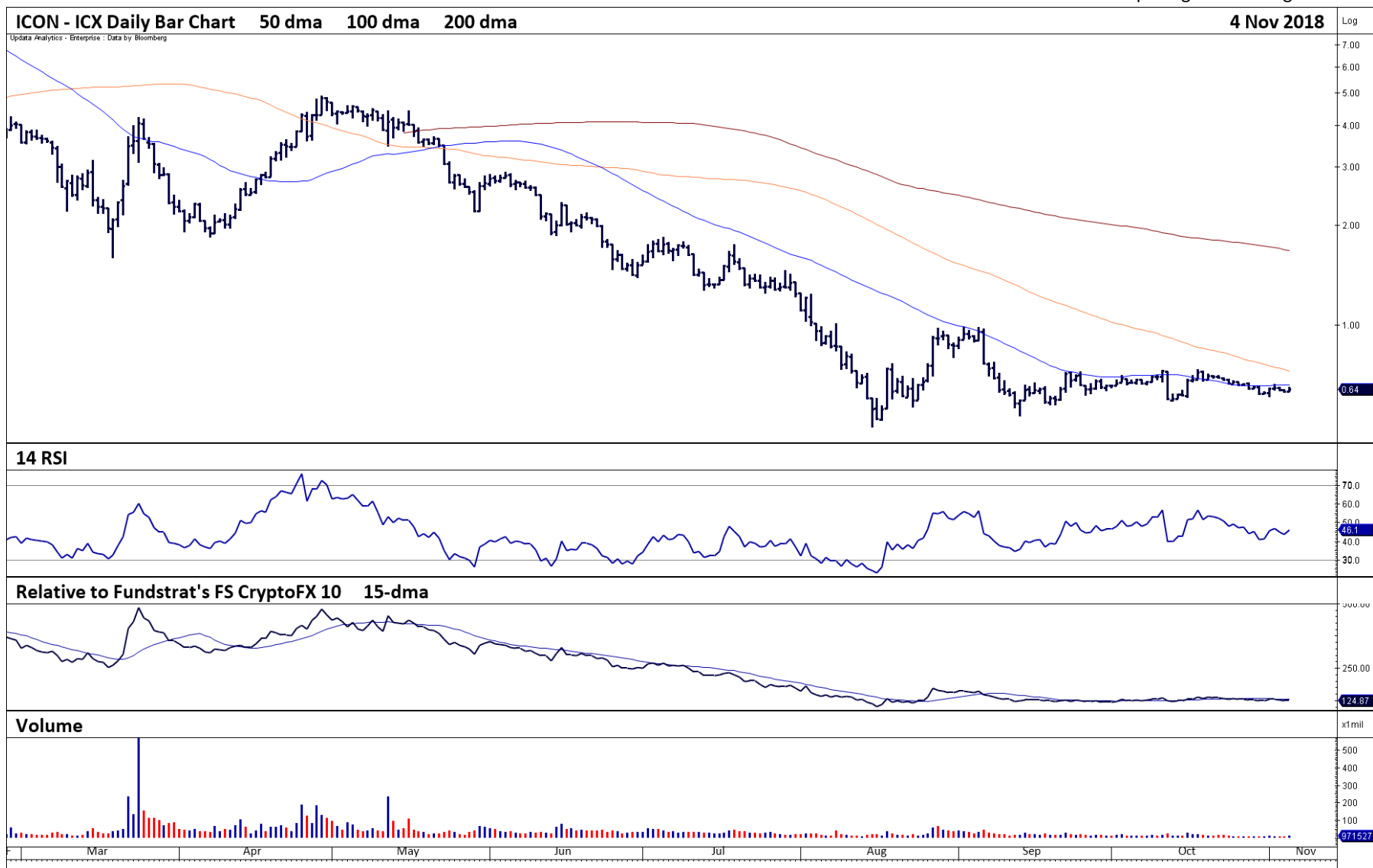
# TECHNICAL : FS Crypto FX 40 Index Currency Charts - Hypercash

Token pricing as of midnight UTC



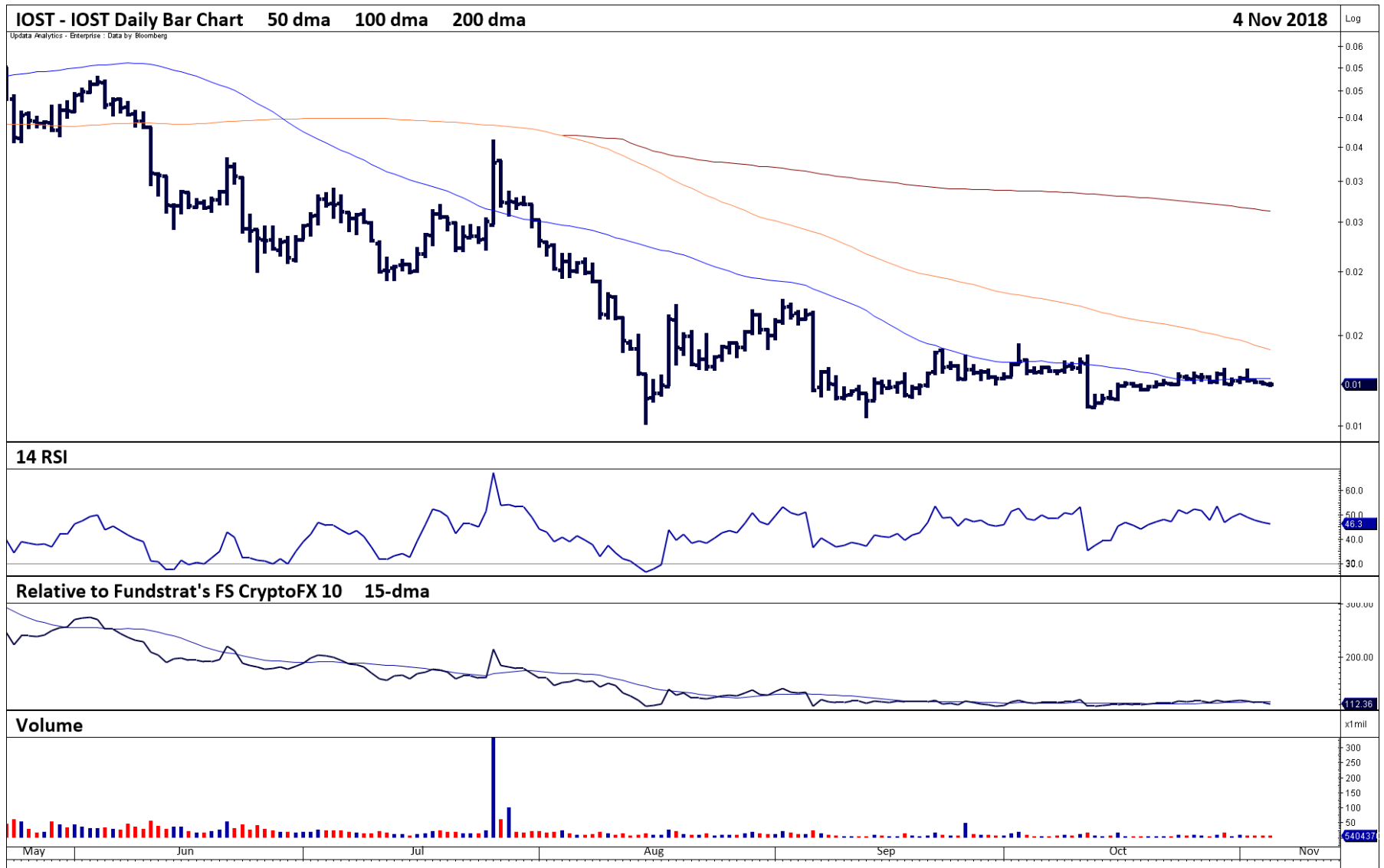
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Icon

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 40 Index Currency Charts - IOST

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 40 Index Currency Charts - IOTA

Token pricing as of midnight UTC



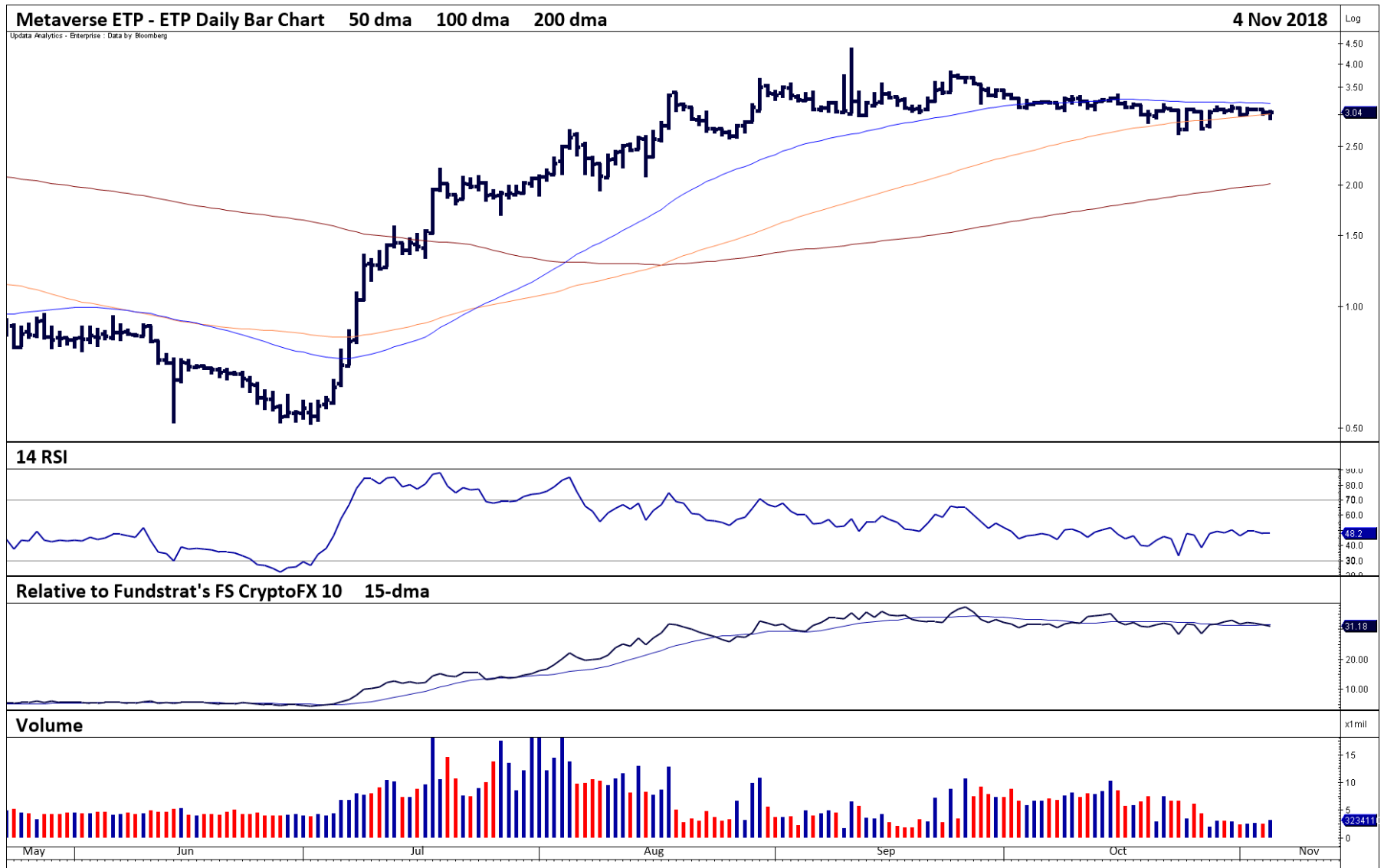
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Lisk

Token pricing as of midnight UTC



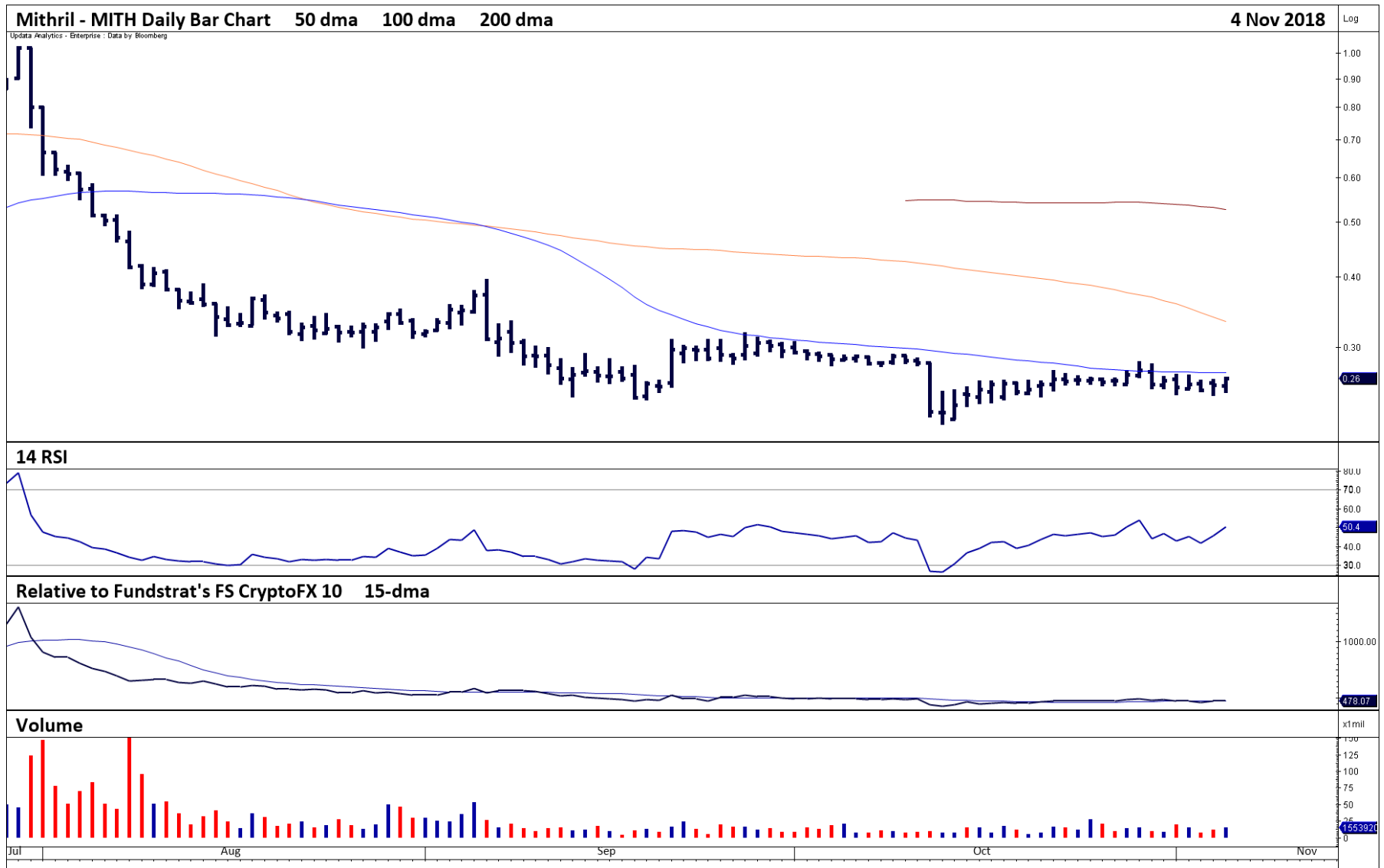
# TECHNICAL : FS Crypto FX 40 Index Currency Charts - Metaverse

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Mithril

Token pricing as of midnight UTC





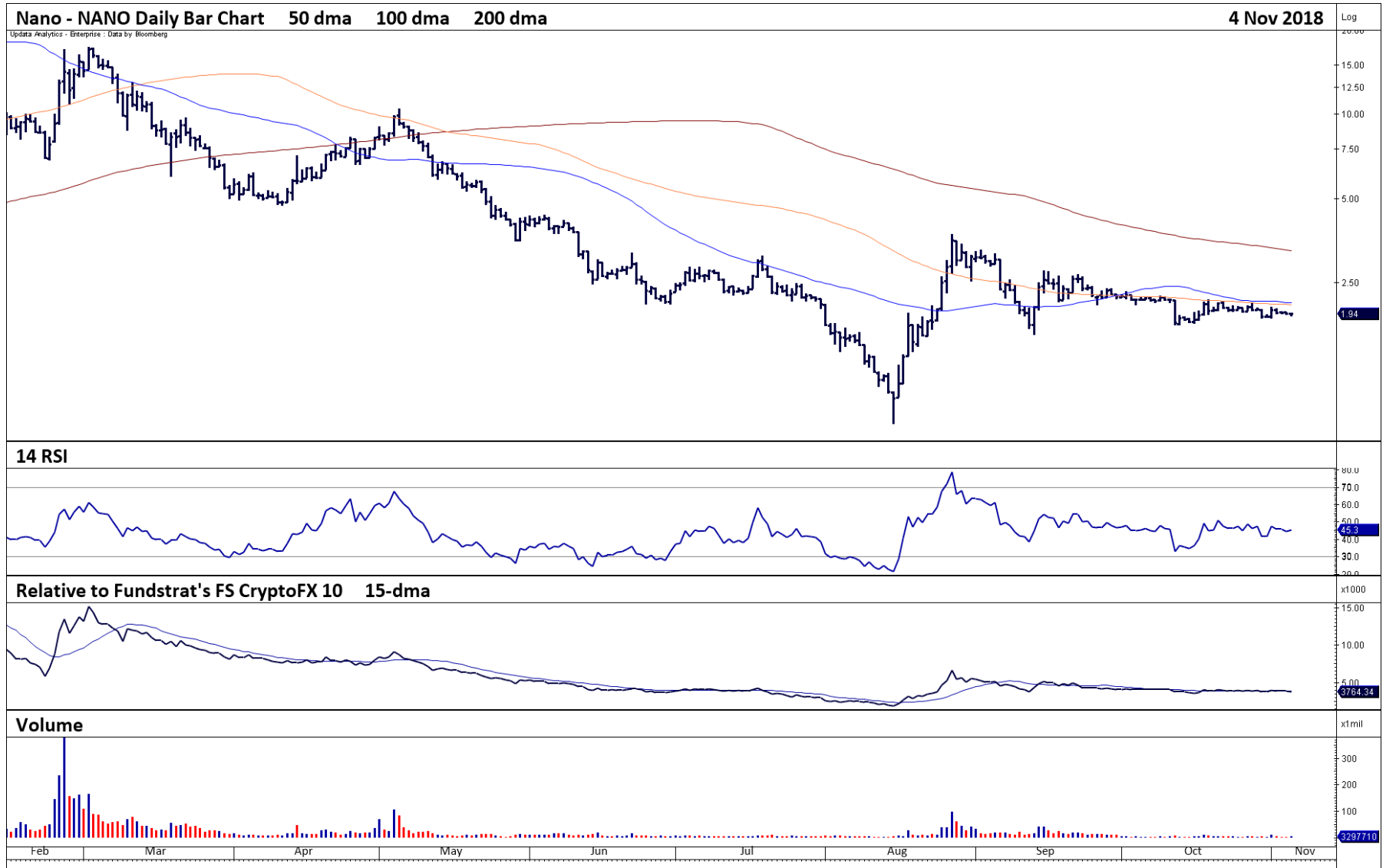
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Monero

Token pricing as of midnight UTC



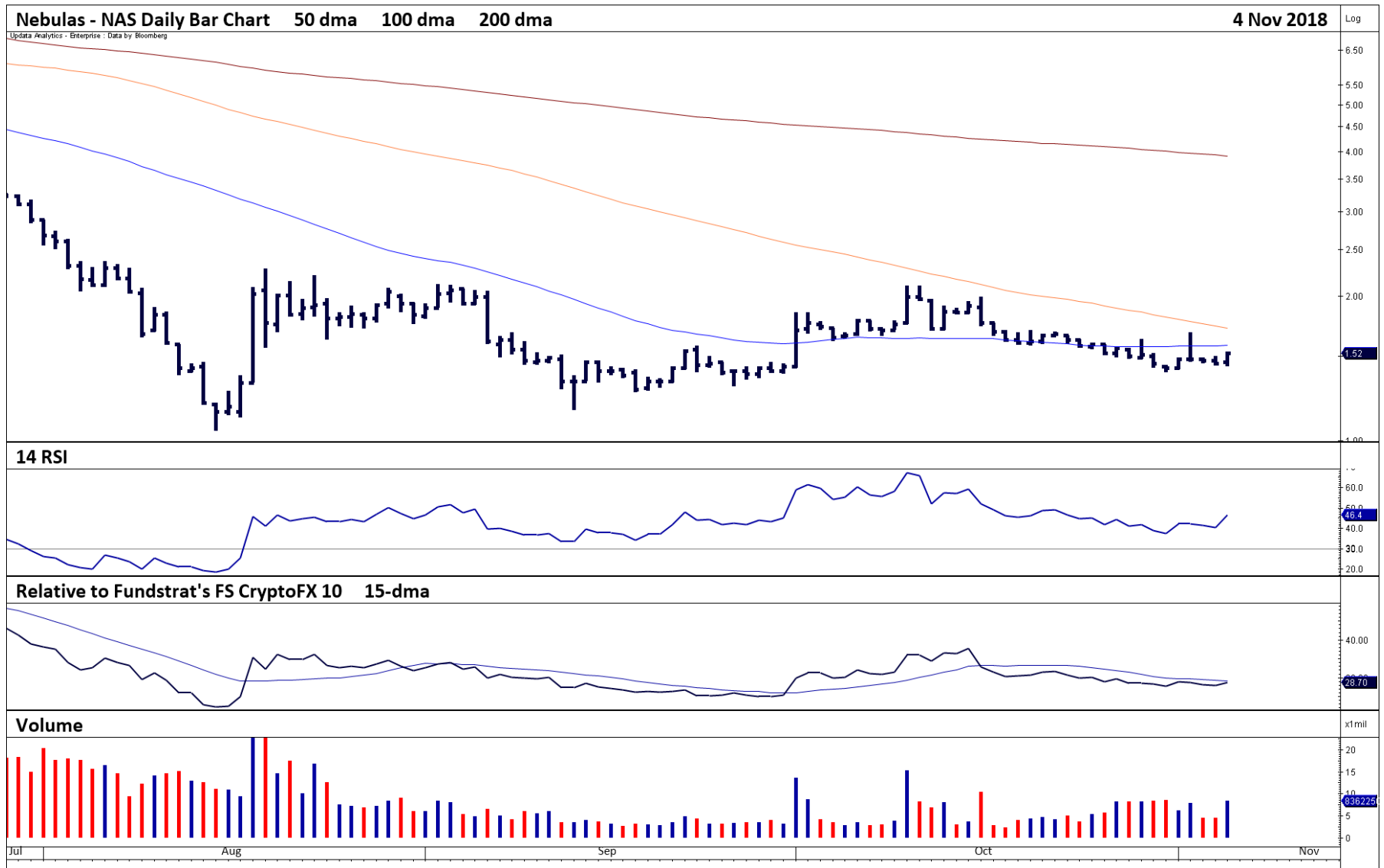
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Nano

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Nebulas

Token pricing as of midnight UTC



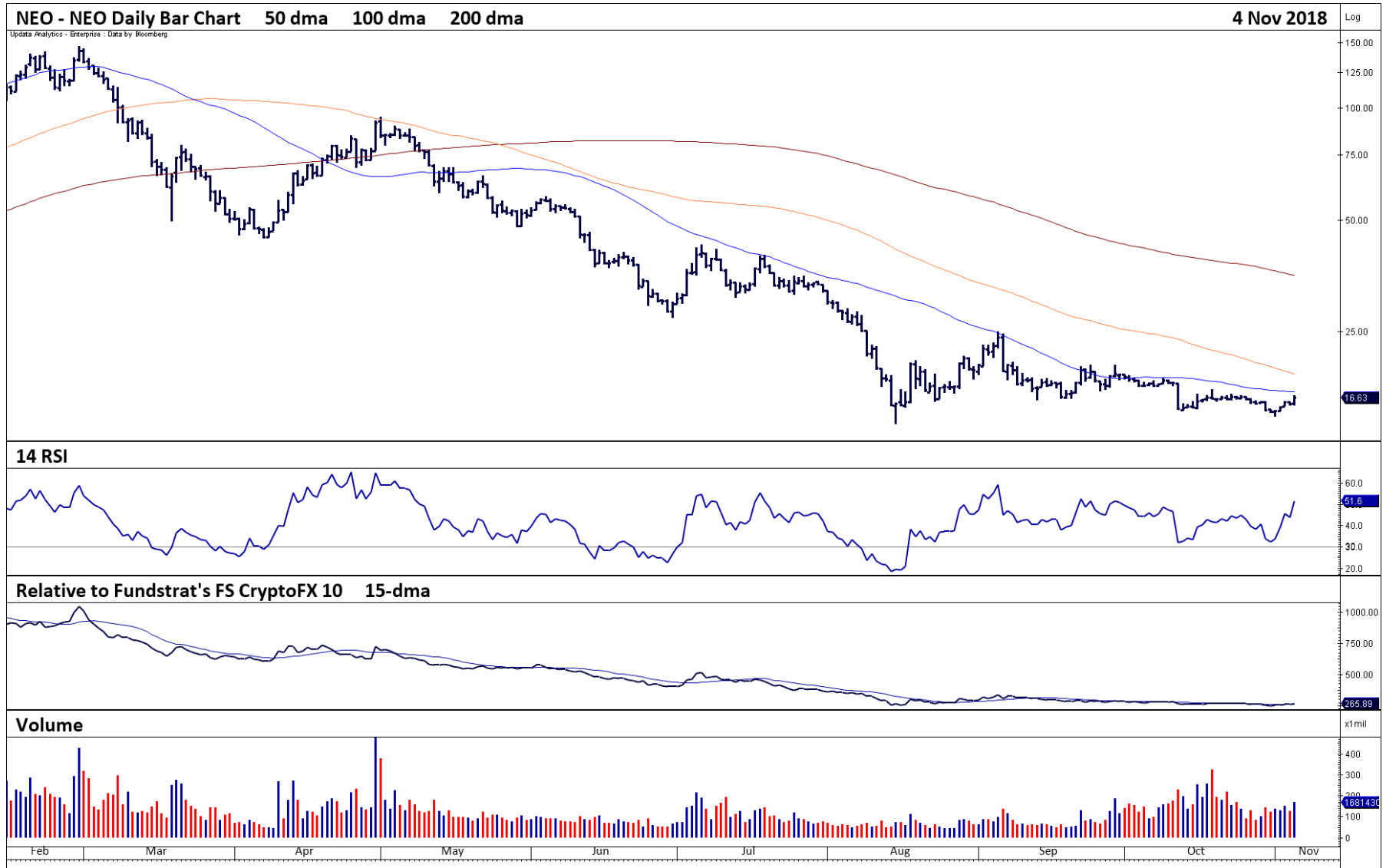
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - NEM

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 40 Index Currency Charts - NEO

Token pricing as of midnight UTC



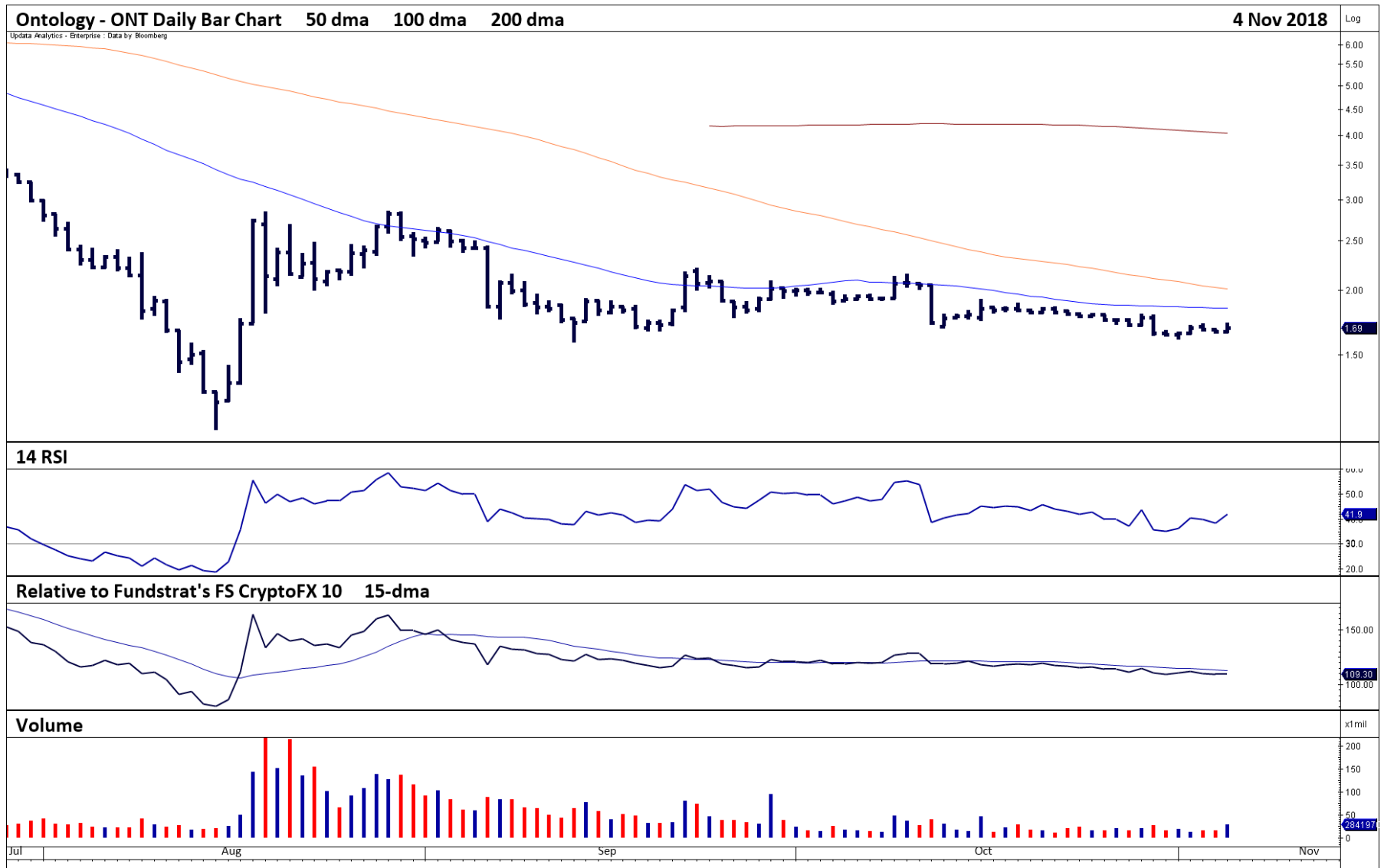
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - OmiseGo

Token pricing as of midnight UTC



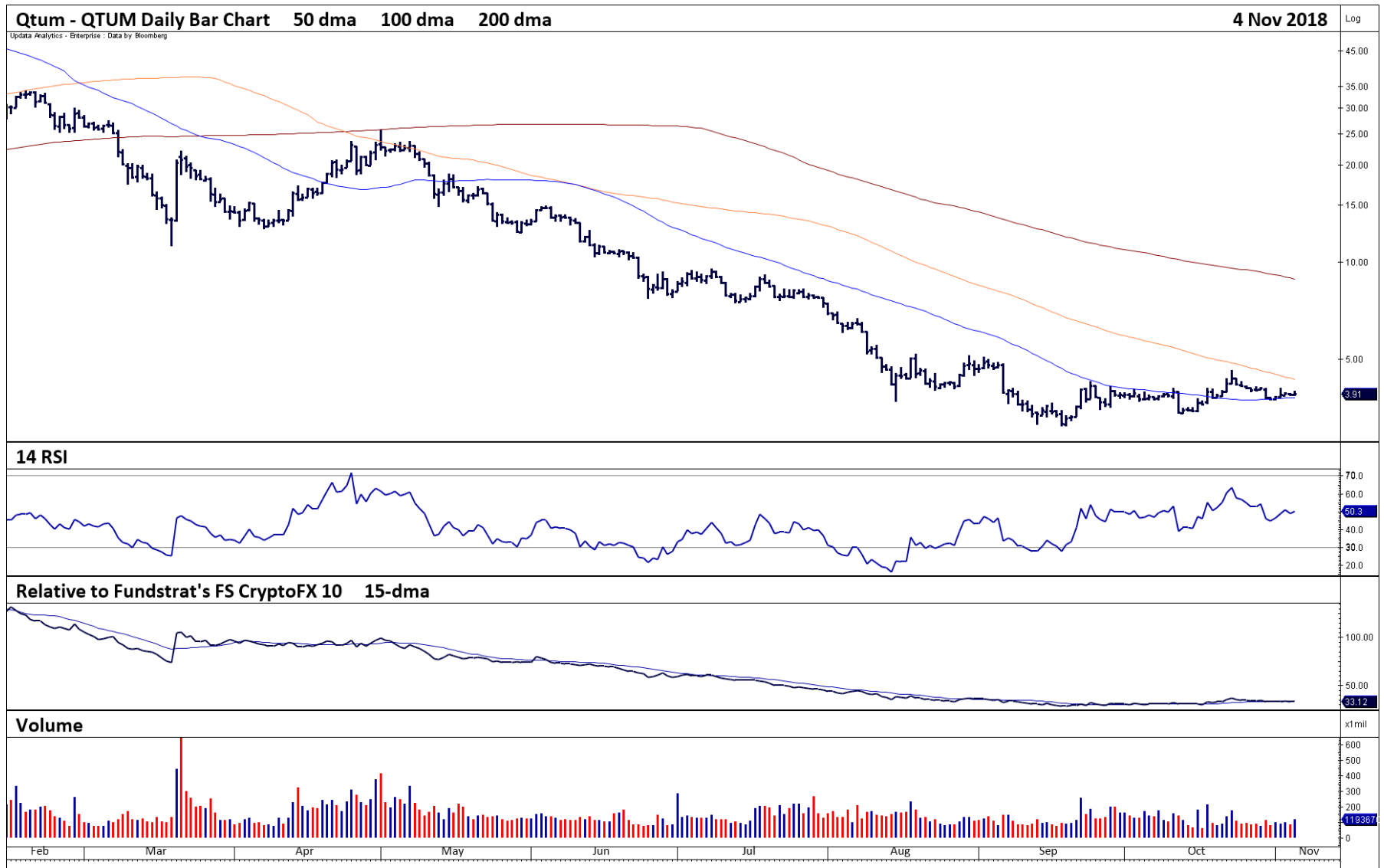
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Ontology

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Qtum

Token pricing as of midnight UTC





# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Siacoin

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Status

Token pricing as of midnight UTC



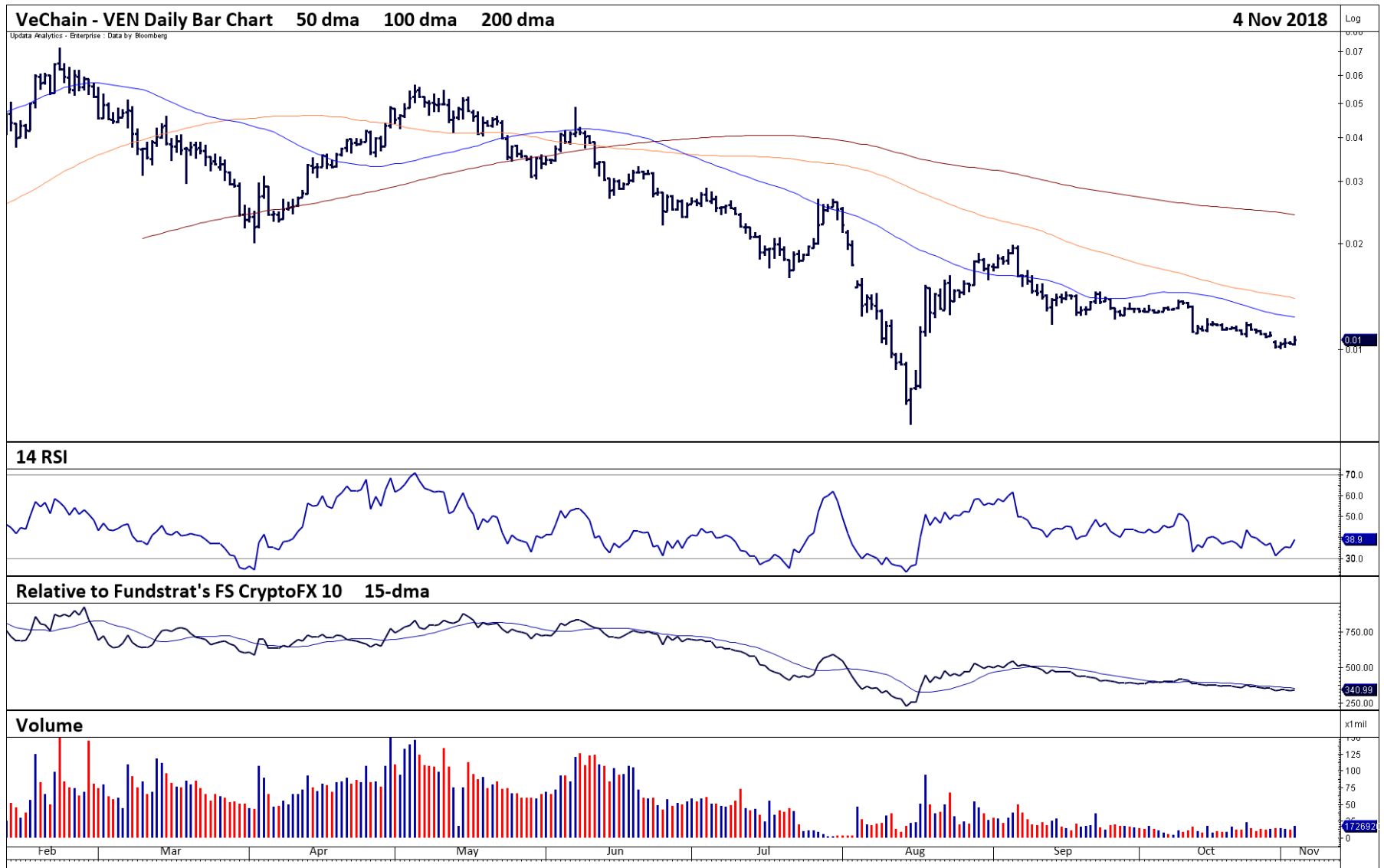
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Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 40 Index Currency Charts - VeChain

Token pricing as of midnight UTC



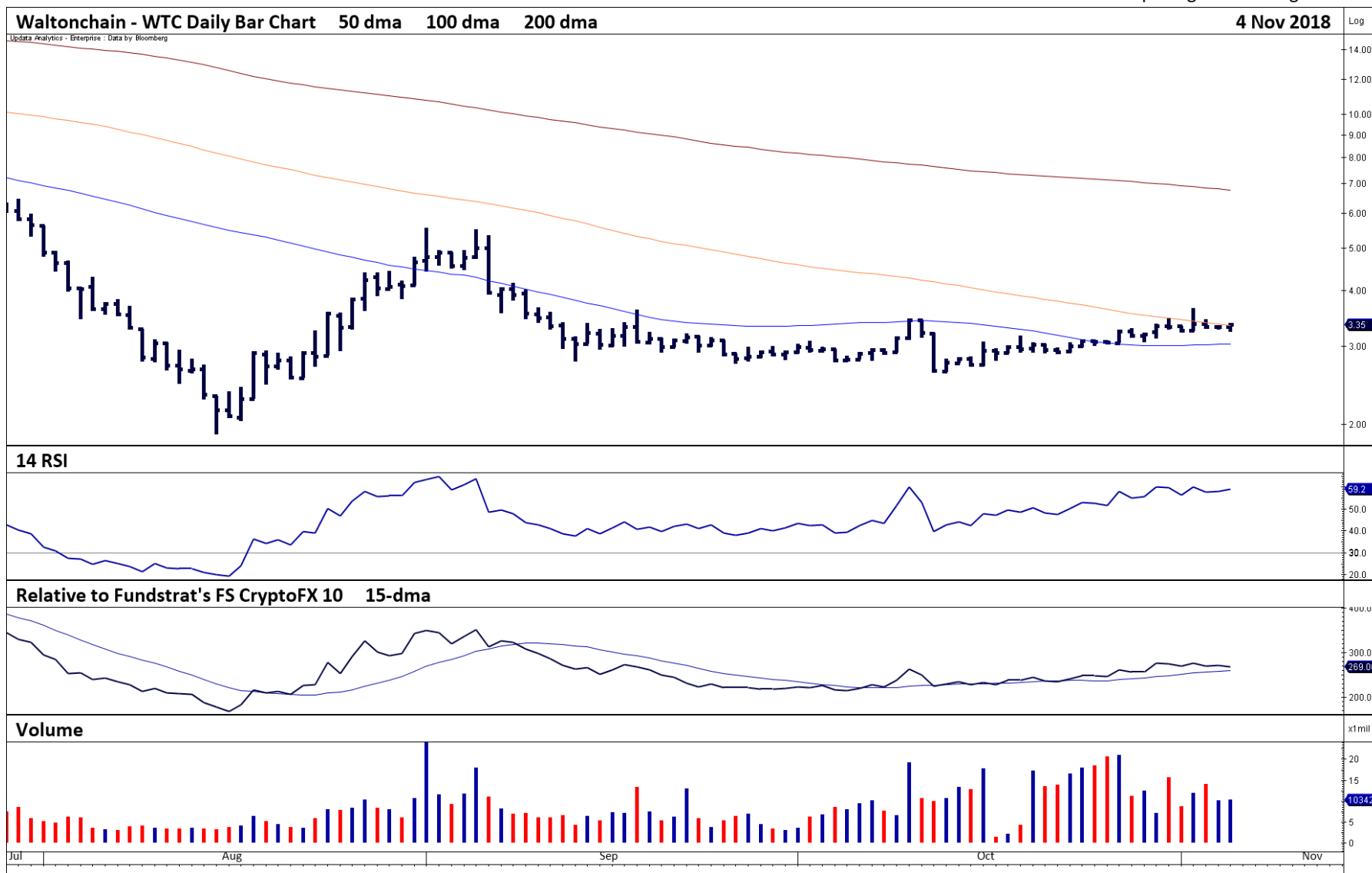
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Token pricing as of midnight UTC



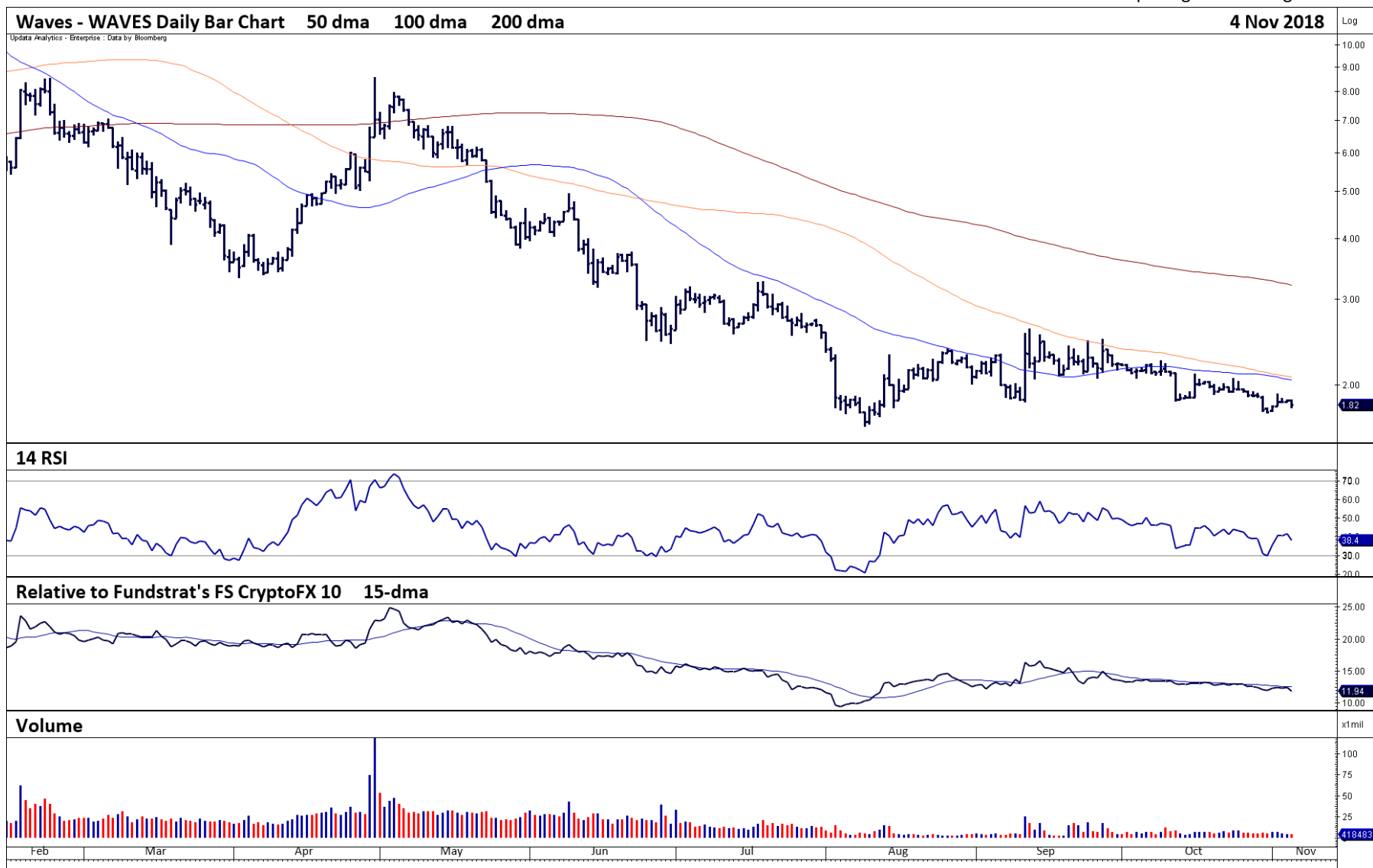
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Waltonchain

Token pricing as of midnight UTC



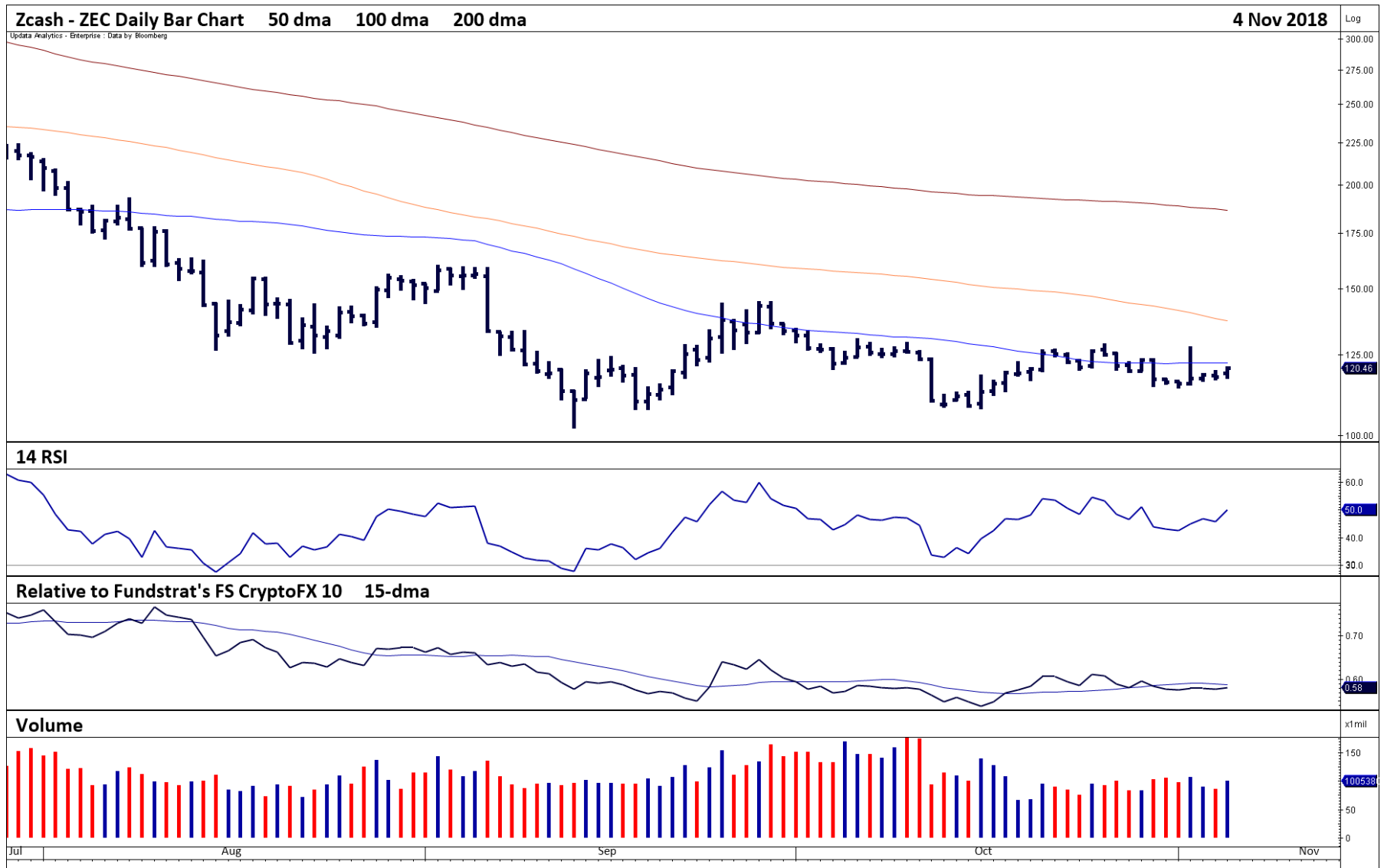
# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Waves

Token pricing as of midnight UTC



# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Zcash

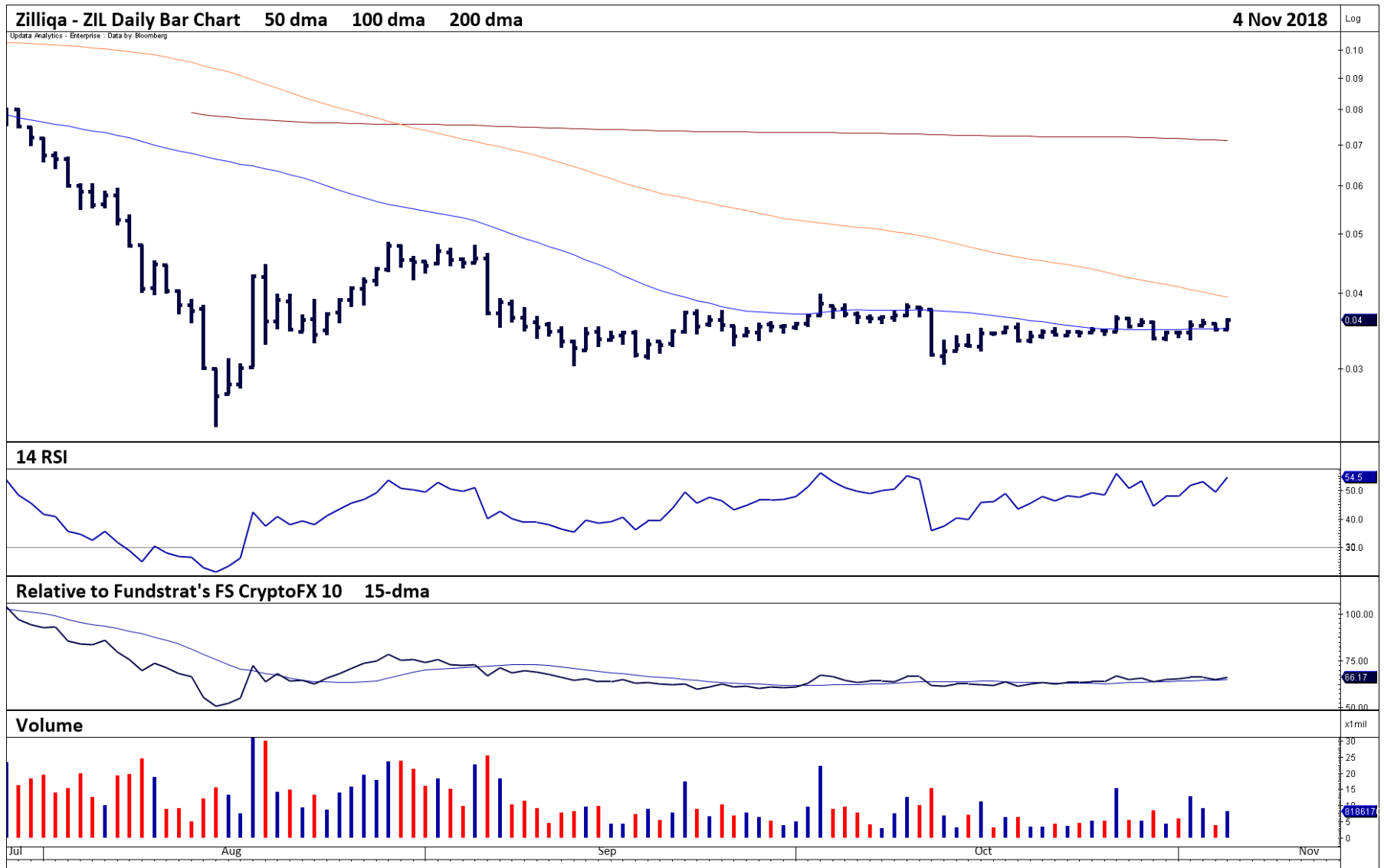
Token pricing as of midnight UTC





# TECHNICAL: FS Crypto FX 40 Index Currency Charts - Zilliqa

Token pricing as of midnight UTC



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