Challenge

Needs to have a data science slant.

Market needs a benchmark. Today it is BTC. But that may change.

Determination of the index to better reflect the market is hard!

Define currencies to be included.

What are the type of currencies today?

Create index and evaluate it against major currencies over time.

Is the index less volatile?

Does it reflect the market?

Benchmark against sample portfolios; i.e., alpha

A leading indicator gives you an idea of what the final result will be, while the lagging indicator is that final result.

How does new indicator compare with S&P500, DJIA, Russell 2000, etc.?

Don’t we want to weight considering how much they have in the market now? How do we know when they release more? Do we penalize because they have more premined? When do we know other currencies released more coins?

Recommendation for algorithm?

Methodology to identify currencies?

Index EPS (earnings per share)

Index PE (price-earnings)

Index (book value per share, price-to-book)

Risk control indices

Exponentially-weighted volatility

Simple-weighted volatility

Domestic currency return index?

Number of exchanges?

Number of shares?

Trading volume?

Price change?

<http://www.nytimes.com/2003/08/31/business/strategies-4-ways-to-build-an-index-none-of-them-ideal.html>