Kenzing
Pinescript Trading Indicators

Trading Indicator: Crypto-Adjusted Exponential Moving Average

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All charts created with **TradingView**

Introduction

Thank you for purchasing an indicator or bundle from Kenzing®. This document contains instructions on how the indicator functions and how to adjust the input values that allow you to personalize the indicator according to your trading strategy. Information on how to access the indicator after purchase is not included in this document and can be found in the Read Me FAQ document.

Understanding the Crypto-Adjusted Exponential Moving Average

This exponential moving average can be adjusted to give weight to the performance of the six largest cryptocurrencies by market-cap. Each of the six cryptocurrencies in this **Crypto-Index** are weighted equally.

- Bitcoin (BTC)
- Ethereum (ETH)
- Bitcoin Cash (BCH)
- Ripple (XRP)
- Litecoin (LTC)
- Nem Coin (XEM)

The use of this indicator is to observe the deviation between the price of the underlying asset that is the basis of your chart, and the rest of the cryptocurrency market that is represented by the **Crypto-Index**.

The exponential moving average (EMA) is a common preference among traders as it puts an increased value on recent prices. As a result, the EMA is more reactive and volatile than a simple moving average. In an EMA, weighting factors decrease exponentially and are calculated using this formula:

$$\textbf{y = period}$$
$$\textbf{alpha = 2 / (y +1)}$$
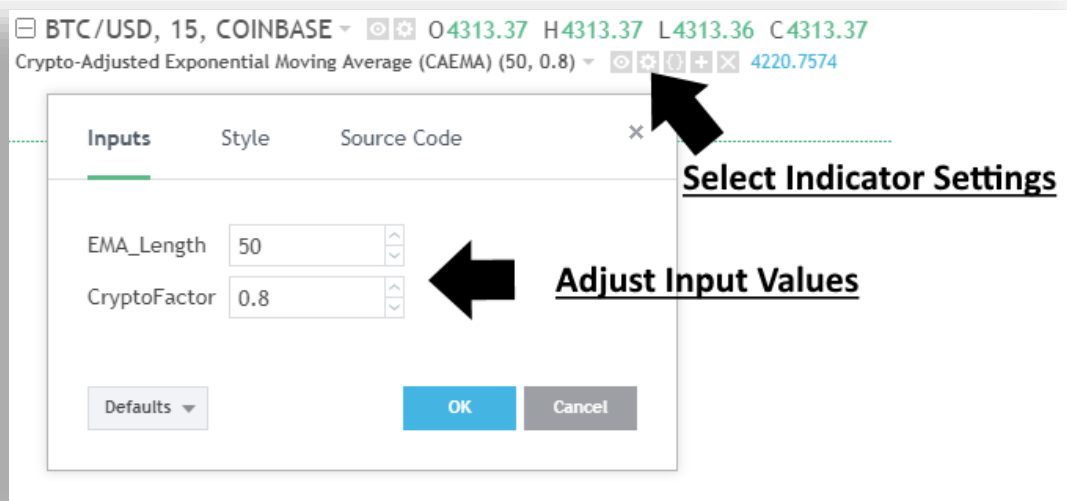$$\textbf{EMA = alpha * x + (1 – alpha) * EMA[1]}$$

Indicator Utility

If more cryptocurrencies trend down while the observed currency trends up, the CAEMA will sit lower than the exponential moving average and a blue pool will become visible showing that the chart is outperforming the **Crypto-Index** listed above.

Inversely, if more cryptocurrencies trend up while your observed currency trends down, the CAEMA will sit higher than the exponential moving average and a red cloud will form, showing that the chart is performing worse than the **Crypto-Index**.

Input Values

This indicator uses two variables that can be adjusted.

EMA_Length
This is the period length of the exponential moving average and can be set to any value. The default value is 50.

CryptoFactor
This is the weight given to the movement of the **Crypto-Index**. Essentially, this value determines how heavily the moving average is changed by the Crypto-Index. If you set this at **0**, the line will be an exponential moving average of the set length without any effect of the Crypto-Index.

By default, the CryptoFactor is set to 0.8.

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