

TABLE OF CONTENTS

1.	Market Data	01
	1.1 Exchange Data Coverage	01
	Real Time Coverage	01
	Historical Data Coverage	01
	Search & Reference Data	02
	Exchange On-Boarding Roadmap	02
	1.2 CryptoIndexSeries Calculated (CISCALC) Universe	03
	Overview	03
	Real Time Coverage	03
	Historical Coverage	03
	Methodology Details	03
	1.3 CryptoIndexSeries Aggregate (CISAGG) Universe	04
	Overview	04
	Aggregation Example	04
	Real Time Coverage	05
	Historical coverage	05
	Methodology Details	05
	1.4 CryptoIndexSeries Indexes (CISIDX)	06
	Overview	06
	Real Time Coverage	06
	Historical coverage	07
	Methodology Details	07
	1.5 CryptoIndexSeries FX (CISFX) Universe	8 0
	Overview	8 0
2.	Descriptive data & Taxonomy	09
	2.1 Technical Perspective	09
	2.2 Regulatory Perspective	10
	2.3 Business Perspective	10
	2.4 Tokenomics Perspective	10
3.	News Content	11
	3.1 News Sources	11
	3.2 Data Model	11
	3.3 Sentiment Scoring	13
	3.4 News Search & Ouerv	14



1. MARKET DATA

Market Data Section explains in detail the following data sets:

- Exchange Data Coverage elaborates which exchanges are covered in our data offering and the level of coverage from real time, historical and search & reference data perspectives.
- Crypto Index Series Calculated Universe (CISCALC) provides information about calculated spot universe for each supported digital asset across multiple (25) valuation currencies.
- Crypto Index Series Aggregated Universe (CISAGG) provides a real time and historical data set with aggregated price and volume data from supported digital asset exchanges. Further details are given in Section 1.3.
- Crypto Index Series Index Universe (CISIDX) provides a real time and historical data set for our proprietary index data consisting of baskets of digital assets.
- Crypto Index Series FX Universe (CISFX) provides a real time and historical data set for traditional fiat FX rates derived from CISAGG data.



1.1 Exchange Data Coverage

Real Time Coverage

CryptoIndexSeries can provide a single live data feed that provides normalised exchange data. The following table details the different data domains supported for each exchange:

Exchange Name	Trade	Ticker	Top of Book	Consolidated Orderbook
Binance	Υ	Υ	Y	Y
Coinbase Pro	Υ	Υ		
HuobiPro	Υ	Υ		
BTC Turk	Υ	Υ		
Gemini	Υ	Υ		
Poloniex	Υ	Υ		
KuCoin	Υ	Υ		
Grate.io	Υ	Y		
Kraken	Υ	Y		
Bitfinex	Υ	Y		
Bitmex	Υ	Y		
BinanceUS	Υ	Y		
GatelO	Υ	Υ		
Bittrex	Υ	Υ		
BitFlyer	Υ	Υ		
ByBit	Υ	Y		
CoinCheck	Υ	Y		
HitBTC	Υ	Y		
IndependentReserve	Υ	Υ		
LBank	Υ	Y		
MEXC	Υ	Υ		
окх	Υ	Υ		
UpBit	Υ	Υ		
Bitpanda Pro	Υ	Υ		
BKEX	Υ	Υ		
CEX	Υ	Υ		
Deribit	Υ	Y		
P2PB2B	Υ	Υ		



Historical Data Coverage

Interval	Coverage
Tick / Trade	- 7 days (Standard License) - Unlimited (Tick Archive License*)
1 minute	30 days
5 minutes	30 days
15 minutes	30 days
30 minutes	30 days
60 minutes	90 days
1 day	Full

^{*} With access to our Tick Archive service customers can access years of raw trade and 1m candles (Please note that the start dates may differ by exchange for the data supported in the archive)

Search & Reference Data

In addition to the live and historical pricing data, CryptoIndexSeries also provides extensive referential data and search functionality to aid price discovery of digital assets across different exchanges / markets.

Exchanges have the following reference data:

Native Symbol / CIS Symbol Mappings

Different exchanges use different symbols / symbology for assets and products. CryptoIndexSeries provides referential data to support an exchanges native symbology as well as our own standardised symbology

Product Lists & Details

Access a list of products per exchange along with relevant details such as the exchanges native product details plus a standardised trading info data model

Asset & Instrument Lists

Access a list of supported instruments & assets per exchange - very useful for cross-reference purposes.



1.2 CryptoIndexSeries Calculated (CISCALC) Universe

Overview

The CryptoIndexSeries calculated spot universe (CISCALC) provides a real time and historical data set with a calculated valuation / price for each supported digital asset across multiple (25) valuation currencies.

The CISCALC price is derived by generating a valuation for a given asset in Bitcoin (BTC) and US Dollars (USD). We then convert this value to other valuation currencies (e.g. EUR, GBP, JPY, CHF, USDT, etc.) using live USD FX rates or live BTC conversion rates.

The CISCALC universe serves multiple use cases:

- Provides a fair price for a digital asset in a specific currency (FIAT or digital)
- Accurate live and historical digital asset price reference which can be used to value a basket of assets or a portfolio of assets.

Real Time Coverage

The CISCALC data universe is supported on our real time data feed with the following channels:

<symbol>~TICKER

<symbol>~TICK

Historical Coverage

Interval	Coverage
Tick / Trade	- 7 days (Standard License) - Unlimited (Tick Archive License*)
1 minute	30 days
5 minutes	30 days
15 minutes	30 days
30 minutes	30 days
60 minutes	90 days
1 day	Full

^{*} With access to our Tick Archive service customers can access years of raw trade and 1m candles. (Please note that the start dates may differ by exchange for the data supported in the archive.)

Methodology Details

Please contact us to receive a copy of the CISCALC methodology document.



1.3 CryptoIndexSeries Aggregate (CISAGG) Universe

Overview

The CryptoIndexSeries aggregated spot universe (CISAGG) provides a real time and historical data set with aggregated price & volume data from supported digital asset exchanges. It also provides a price index based on the trades of each spot pair across supported digital asset exchanges.

The CISAGG universe is, therefore, an extremely useful & accurate reference price for spot pairs across digital asset exchanges.

The CISAGG universe serves multiple use cases:

- Provides a fair price for a digital asset in a specific currency (FIAT or digital)
- To check price efficiency of a given market / exchange versus the overall market
- To identify any market / exchange with price deviation from the rest of the market

Aggregation Example

As a simple example - assume we have a spot pair like BTC/USDT and it is traded on exchanges A,B,C,D & E. The CISAGG data record would aggregate the volumes and pricing of each exchange into a single symbol/record that can be accessed via our API and websocket feed.

If some of the components meet the price index calculation requirements, then a price index is also calculated from the trades on those exchanges.

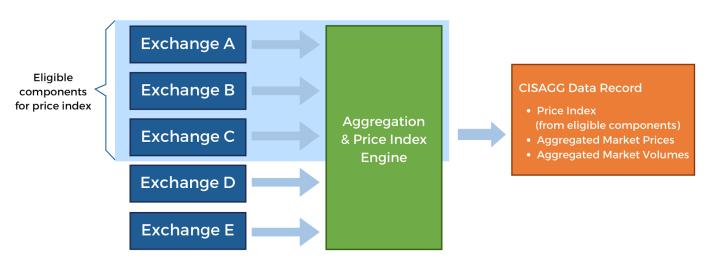


Fig i - data aggregation process



Real Time Coverage

The CISAGG data universe is supported on our real time data feed with the following channels:

<symbol>~TICKER <symbol>~TICK

Historical Coverage

Interval	Coverage
Tick / Trade	- 7 days (Standard License) - Unlimited (Tick Archive License*)
1 minute	30 days
5 minutes	30 days
15 minutes	30 days
30 minutes	30 days
60 minutes	90 days
1 day	Full

^{*} With access to our Tick Archive service customers can access years of raw trade and 1m candles. (Please note that the start dates may differ by exchange for the data supported in the archive.)

Methodology Details

Please contact us to receive a copy of the CISAGG methodology document.



1.4 CryptoIndexSeries Indexes (CISIDX)

Overview

The CryptoIndexSeries Index universe (CISIDX) provides a real time and historical data set for our proprietary index data. This data set differs from CISAGG & CISCALC as it provides an index for a basket of digital assets.

Currently, at CryptoIndexSeries, we hold the following indices and have the know-how to create others.

Index Name	Index Description
CISBIG10	Crypto Index Series Big 10 Index
CISBIG25	Crypto Index Series Big 25 Index
CISBIG50	Crypto Index Series Big 50 Index
CISBIG10xBTC	Crypto Index Series Big 10 Index excluding BTC
CISBIG25xBTC	Crypto Index Series Big 25 Index excluding BTC
CISBIG50xBTC	Crypto Index Series Big 50 Index excluding BTC
CISFINBIG50	Crypto Index Series Finance Big 50 Index
CISTECBIG50	Crypto Index Series Technology Big 50 Index
CISENTBIG50	Crypto Index Series Entertainment Big 50 Index

The CISIDX universe serves multiple use cases:

- Provides a reliable & transparent benchmark for digital asset markets & sectors.
- Acts as a model portfolio when customised based on the chosen assets
- Supports the analysis of assets in a given sector

Real Time Coverage

The CISIDX data universe is supported on our real time data feed with the following channels.

<symbol>~TICKER

<symbol>~TICK



Historical Coverage

Interval	Coverage
Tick / Trade	- 7 days (Standard License) - Unlimited (Tick Archive License*)
1 minute	30 days
5 minutes	30 days
15 minutes	30 days
30 minutes	30 days
60 minutes	90 days
1 day	Full

^{*} With access to our Tick Archive service customers can access years of raw trade and 1m candles. (Please note that the start dates may differ by exchange for the data supported in the archive.)

Historical Constituents & Weightings data is also available through our API for each index.

Methodology Details

Please contact us to receive a copy of the CISIDX methodology document.



1.5 CryptoIndexSeries FX (CISFX) Universe (COMING SOON)

Overview

The CryptoIndexSeries Implied FX (CISIFX) Universe provides a real time & historical dataset for traditional FIAT FX rates – e.g. USD/EUR USD/GBP etc...

These rates are not taken from the traditional FX markets but are derived from the aggregated spot market data of supported digital asset exchanges.



2. Descriptive Data & Taxonomy

CryptoIndexSeries has developed a taxonomy based on the common characteristics of crypto assets as observed in their whitepapers. This taxonomy examines the assets from 4 perspectives:

- Technical
- Regulatory
- Business
- Tokenomics

Each **perspective** consists of **characteristics** describing a relevant nature of the asset from the respective perspective. The rest of this section explains each perspective in detail.

CIS Proprietary Taxonomy			
Technical Perspective	Regulatory Perspective		
 Native Token: Yes / No Parent Blockchain: N/A, <name blockchain="" of="" parent="" the=""></name> Consensus Algorithm: <name algorithm="" consensus="" of="" the=""></name> Hash Algorithm: <name algorithm="" hash="" of="" the=""></name> Anonymity: <anonymous, pseudonymous=""></anonymous,> 	 Asset Type: <security payment="" token,="" tokent="" utility=""></security> Stable Coin Flag: <yes no=""></yes> Backed / Collateralised flag: <yes no=""></yes> 		
Business Perspective	Tokenomics Perspective		
 Sector: <sector name=""></sector> Defi Flag : <yes no=""></yes> DeFi Category: <lending, etc.="" staking,=""></lending,> 	 Limited / Limitless supply: <yes no=""></yes> Mineable Flag: <yes no=""></yes> Burnable Flag: <yes no=""></yes> Twin Coin Flag: <yes no=""></yes> Fungible /Non-Fungible : <fungible non-fungible=""></fungible> 		

2.1 Technical Perspective

The Technical perspective classifies the expected technical characteristics of a crypto asset. Here are classifications listed under this perspective:

- Native Token: Yes / No
- Parent Blockchain: N/A, <Name of the parent blockchain>
- Consensus Algorithm: <name of the consensus algorithm>
- Hash Algorithm: <name of the hash algorithm>
- Anonymity: <Anonymous, Pseudonymous>

Each Crypto asset may have different values for each characteristic.



2.2 Regulatory Perspective

The Regulatory perspective classifies the assets based on the potential differences in compliance and regulation matters. Here are the characteristics listed under this perspective:

- Asset Type: <Security token, utility token, payment tokent>
- Stable Coin Flag: <Yes / No>
- Backed / Collateralised Flag: <Yes / No>

2.3 Business Perspective

The Business Perspective classifies the assets by looking at the sector they aim to operate. Here are the characteristics listed here:

- Sector: <Sector name>
- Defi Flag: <Yes / No>
- DeFi Category: <Lending, Staking, etc.>

In creating the sector classification, the traditional financial sector classification is taken as a reference. There are 17 sectors included in this work and each sector is further explained in Appendix A.

In addition to the sectors, the assets are also tagged if they are utilised as part of a DeFi application.

We foresee the addition of other characteristic to this work by dividing sectors into subsectors and adding other flags. For instance, the technology sector can have sub-sectors such as : Smart contract platforms, etc. and there can be flags for metaverse tokens.

2.4 Tokenomics Perspective

The Tokenomics Perspective classified the assets based on their characteristics that determines the token economics of that asset. In other words, the listed characteristics would have influence on the circulating supply of the asset:

- Limited / Limitless supply: <Yes/No>
- Mineable Flag: <Yes/No>
- Burnable Flag: <Yes/No>
- Twin Coin Flag: <Yes/No>
- Fungible / Non-Fungible: <Fungible / Non-fungible>



3. News Content

CryptoIndexSeries collects data from 35 different Crypto news sources, we tag and score each article and then index / archive the data to our databases.

This allows our users to easily access normalised news content over a single API.

We have historical news data back to 2017.

3.1 News Sources

We currently collect data for the following news sources.

CCN	CoinDesk	CoinTelegraph	CryptoPotato	BitcoinNews
NewsBTC	Cointelligence	TheDailyHodl	CryptoVest	CryptoNewsReview
Coinnounce	CryptoSlate	CryptoGlobe	BitcoinMagazine	Cryptopolitan
Bitcoinist	Bitcoinerx	NullTx	Decrypt	CryptoNewsZ
FinanceMagnates	CryptoBriefing	TheBlock	Chaintimes	99bitcoins
Blokt	LiveBitcoinNews	EthereumWorldNews	AMBCrypto	TrustNodes
Chaindd	CryptoCoreMedia	TimesNext	CoinSpeaker	CryptoIndexSeries

3.2 Data Model

Below is an example of the data model for a news article on our API.

id: "https://www.newsbtc.com/?p=504599"

link: "https://www.newsbtc.com/analysis/btc/bitcoin-price-keeps-struggling-20k/"

publication_datetime: 1664766534000

source: "news_btc"

image_url: "https://www.newsbtc.com/wp-content/uploads/2018/03/cropped-favicon-

200x200.png"

logo_url: "https://www.newsbtc.com/wp-content/uploads/2018/03/cropped-favicon-

200x200.png"

main_image_url: "news-images/8e2eaf87-142f-4e03-93a5-5fff985e4647.jpeg"



summary: "Bitcoin price is struggling to climb above the \$20,000 resistance against the US Dollar. BTC could decline heavily if there is a close below the \$18,500 support. Bitcoin remained in a range and stayed above the \$19,000 support zone. The price is trading below \$19,400 and the 100 hourly simple moving average. There was a break below a key bullish trend line with support near \$19,350 on the hourly chart of the BTC/USD pair (data feed from Kraken). The pair could start a fresh decline if there is a clear move below the \$18,500 support. Bitcoin Price Stuck In a Range Bitcoin price attempted a fresh increase above the \$19,000 resistance zone. BTC climbed above the \$19,250 level and the 100 hourly simple moving average. The price even gained pace above the \$19,500 resistance and spiked above \$20,000. However, the bears were active above the \$20,000 resistance zone. A high was formed near \$20,177 and the price started a downside correction. There was a move below the \$19,500 level. Besides, there was a break below a key bullish trend line with support near \$19,350 on the hourly chart of the BTC/USD pair. Bitcoin price is now trading below \$19,400 and the 100 hourly simple moving average. A low is formed near \$18,937 and the price is consolidating losses. It is trading near the 23.6% Fib retracement level of the recent decline from the \$20,177 swing high to \$18,937 low. On the upside, an immediate resistance is near the \$19,400 level and the 100 hourly SMA. The next major resistance sits near the \$19,560 zone. It is close to the 50% Fib retracement level of the recent decline from the \$20,177 swing high to \$18,937 low. Source: BTCUSD on TradingView.com A clear move above the \$19,560 resistance might start a fresh increase. In the stated case, the price could even surpass the \$20,000 resistance zone. The next major resistance is near the \$20,500 zone. Another Drop in BTC? If bitcoin fails to rise above the \$19,560 resistance zone, it could start a fresh decline. An immediate support on the downside is near the \$19,000 zone. The next major support is near the \$18,580 zone. The main support is near \$18,500, below which there could be a sharp drop to \$18,000. Any more losses might call for a drop towards the \$17,500 support. Technical indicators: Hourly MACD - The MACD is now losing pace in the bearish zone. Hourly RSI (Relative Strength Index) - The RSI for BTC/USD is now above the 50 level. Major Support Levels - \$19,000, followed by \$18,580. Major Resistance Levels - \$19,560, \$20,000 and \$20,500."

```
title: "TA: Bitcoin Price Keeps Struggling, What Could Trigger Another Downtrend"
```

```
tags: ["EXCHANGE_Index", "COIN_BTC", "OTHER_Market",

"ASSET_TYPE_Payment_Token_P_2", "OTHER_Fiat", "OTHER_Trading",
"EXCHANGE_Kraken", "SECTOR_Finance_FIN_3"]
```



```
sentiment: {
    title: -0.8792
    summary: -0.2343
    content: -0.2343
   }
score: 0
og_metadata:{
    site_name:"NewsBTC"
    image: "https://www.newsbtc.com/wp-
    content/uploads/2021/04/shutterstock_1489955045.jpg"
    description: "Bitcoin price is struggling to climb above the $20,000 resistance against
    the US Dollar. BTC could decline heavily if there is a close below the $18,500 support."
    title: "TA: Bitcoin Price Keeps Struggling, What Could Trigger Another Downtrend"
    type: "article"
    url: "https://www.newsbtc.com/analysis/btc/bitcoin-price-keeps-struggling-20k/"
   }
```

3.3 Sentiment Scoring

CryptoIndexSeries has trained an Artificial Intelligence (AI) system to generate sentiment scores for every news article collected.

Each news article will have 3 scores:

```
    title - a sentiment score for the articles title only
    summary - a sentiment score for the articles summary
    content - a sentiment score for the articles entire content
    sentiment scores range from -1 (most negative) to +1 (most positive).
```



3.4 News Search & Query

Our API provides useful functionality to search & query the entire news archive.

It is possible to query news by any of the supported tags, we tag news articles with the following types:

- Coin Any digital assets referenced in the article get tagged
- Exchange Any exchanges referenced in the article will be tagged
- Geography Any reference to a country, region, continent is tagged
- Other We also tag other relevant categories such as Mining, Regulatory, ICO, Trading etc...

It is also possible to run aggregation queries to generate a count of news articles per day / week / month including a count of positive / negative articles for the time bucket.

Using this powerful querying capability allows users to create meaningful analysis of sentiment in the market. Some example analysis below...



An example of a positive / negative news article count plotted against the BTC/USDT closing price history on a daily basis.



24h analysis showing positive / negative article count per coin.



DISCLAIMER

No Investment Advice

The information provided on any CryptoIndexSeries products does not constitute or cannot replace any investment advice, financial advice, trading advice, or any other sort of advice and you should not treat any of the website's content as such. CryptoIndexSeries does not recommend that any cryptocurrency should be bought, sold, or held by you. Do conduct your own due diligence and consult your financial advisor before making any investment decisions.

Accuracy of Information

CryptoIndexSeries will strive to ensure accuracy of information listed on this website although it willnot hold any responsibility for any missing or wrong information. CryptoIndexSeries provides all information as is. You understand that you are using any and all information available here at your own risk.

Non Endorsement

The appearance of third-party advertisements and hyperlinks on CryptoIndexSeries does not constitute an endorsement, guarantee, warranty, or recommendation by CryptoIndexSeries. Do conduct your own due diligence before deciding to use any third-party services.



CONTACT US



HQ: 85 Great Portland Street, First Floor, W1W 7LT, London, England

TR: CoZone, ODTÜ BIM, 06510, Ankara, Turkey

For more information on any of **CryptoIndexSeries** products, please feel free to contact us on any of the following channels:

cryptoindexseries.com

contact@cryptoindexseries.com







cryptoindexseries