



Euronext Crypto Indices

Methodology



May 10th, 2024

Version History

Readers can access other versions of the methodology for the Euronext Crypto Indices online when they become available on Compass Financial Technologies website (www.compass-ft.com) and Euronext website (www.euronext.com).

Date	Version	Change
01/08/2022	1.0	Methodology Publication
21/11/2022	1.1	Remove ItBit and BitFlyer from ECI eligible exchanges
17/04/2023	1.2	Remove OkCoin from ECI eligible exchanges
09/05/2023	1.3	Remove Bittrex from eligible exchanges
13/06/2023	1.4	Binance.US is removed from the list of eligible exchanges
20/07/2023	1.5	Add news coins LTC, LINK, UNI, DOT, XLM, BCH, FIL, LDO, NEAR, ICP, ALGO, FTM, EOS, ATOM, AAVE, MANA, XTZ, CRV, MKR, SAND, LRC, BAT, TRX, NEO, THETA, ENJ. Effective on July 26th 2023
10/05/2024	1.6	Change of Data Source - Effective on May 10th 2024

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Changes versus previous version

ECI have been added for the following new coins:

- LTC
- LINK
- UNI
- XLM
- BCH
- FIL
- LDO
- NEAR
- ICP
- ALGO
- FTM
- EOS
- ATOM
- AAVE
- MANA
- XTZ
- CRV
- MKR
- SAND
- LRC
- BAT
- TRX
- NEO
- THETA
- ENJ

They will be available from July 26th, 2023.

1 Introduction

The Euronext Crypto Indices (the *ECI*, the *Indices* or the *Index*) measure crypto exchange rates against US Dollars for the main cryptocurrencies.

Indices are computed and published every Euronext trading days (<https://www.euronext.com/en/trade/trading-hours-holidays>). End of day indices values are calculated and published 5 minutes after 5pm Paris time.

Real Time indices values are calculated and published from 07:15 to 22:30 pm CET on every Euronext trading days

ECI Indices can be accessed online on the Compass Financial Technologies website (www.compass-ft.com), on Euronext website (www.euronext.com), on Bloomberg, Refinitiv and other data vendors.

The Euronext Crypto Indices have been designed to provide institutional investors with independent and robust cryptocurrency reference prices. Based on a resilient and BMR compliant methodology, they serve as independent and transparent prices to value cryptocurrency portfolio or as benchmarks for investors willing to issue investment products tracking cryptocurrencies prices.

The Index Administrator and Calculation Agent is Compass Financial Technologies (France).

ECI available as of July 26th 2023 are listed in Table 3 section 11.

2 Data Source

2.1 Data Provider

The daily price levels of the ECI Indices are based on the historical tick-by-tick trades sourced directly from eligible exchanges.

2.2 Eligible Exchanges

The ECI pricing methodology is performed through tracking a subset of exchanges. Eligible Exchanges must offer CryptoCurrency against USD markets and be approved by Compass Committees and by the Euronext Crypto Indices Steering Committee.

The current list of Eligible Exchanges used in ECI calculations is composed of the following exchanges:

Eligible Exchanges
Bitstamp
Bitfinex
Coinbase
Gemini
Kraken
Lmax

Table 1: Euronext Crypto Indices Eligible Exchanges

2.3 Eligibility Requirements

To be considered as an Eligible Exchange a trading venue must meet the following criteria:

1. Be a centralized exchange
2. Provide an open platform for trading spot against fiat USD for at least 1 coin covered by Compass Crypto index family
3. Have been operated as a crypto trading venue for at least 2 years
4. Provide robust IT infrastructure and does not exhibit significant downtime, withdrawal, or known security issues
5. Provide reliable and transparent API to retrieve trades and volume data
6. Charge fees for trading: this provision is designed to exclude trading venues that encourage wash sale trading
7. Not be domiciled in a country that implements meaningful capital controls or restrictions on foreign or international investors
8. Comply with applicable law and regulation, including capital markets regulations, know-your-client (KYC) regulations and anti-money laundering (AML) regulations
9. Not have been declared unlawful by any governmental authority or agency with jurisdiction over the exchange
10. Collaborate with inquiries and investigations of regulators

3 Index Calculation

3.1 Calculation formula - end of day computation

Trading venues selection process

For each Euronext Crypto Index, a dynamic fully systematic algorithm selects among the list of eligible exchanges the trading venues which will contribute to the computation of the ECI for the coming month. On the last day of each month, for each cryptocurrency c , the algorithm computes the last 60 days average volume for each eligible exchange where cryptocurrency c is traded against USD. (For the avoidance of doubt, the last data used in the computation refer to the day preceding the last business day of the month). The process keeps exchanges with a corresponding average volume representing at least 5% of the total aggregated volume over all eligible exchanges for cryptocurrency c . Only trades from the selected exchanges (the "Selected Exchanges") will be considered in the ECI computation for the coming month.

Each Euronext trading day, Euronext Crypto Indices are calculated based on the collection of all observable transactions of all respective Selected Exchanges. The calculation methodology of the Euronext Crypto Index level for cryptocurrency c on date t for the hour h_i follow the steps below:

1. For each Selected Exchange k_c , we create a dataset of all USD denominated trades occurring during the hourly time-period $[h_{i-1}, h_i]$.
2. Each dataset is divided in 12 time-equally sized partitions of trade records.
3. Volume-weighted median of trade prices are calculated for each partition and each Selected Exchange.
4. For each partition l , if the absolute percentage deviation of the Volume-weighted median price of a Selected Exchange from the median price computed on all Eligible Exchanges is above 5%, the data of that exchange is considered anomalous. The exchange is then excluded from the Selected Exchanges for this partition.
5. For each partition l , a Partition Reference Price $P_{c,t,h_i,l}$ is computed as the exchange volume weighted average over partition l of the volume-weighted median prices computed in step above.
6. The final Euronext Crypto Index level is given by the arithmetic average of the computed Partition Reference Prices.

Given date t , cryptocurrency c , partition l and time-period $[h_{i-1}, h_i]$, the Partition Reference Price $P_{c,t,h_i,l}$ is expressed as:

$$P_{c,t,h_i,l} = \frac{\sum_{k=1}^{n_{c,t}} Volume_{c,t,h_i,l,k} \times vwmp_{c,t,h_i,l,k}}{\sum_{k=1}^{n_{c,t}} Volume_{c,t,h_i,l,k}} \quad (1)$$

Where,

- $n_{c,t}$ is the number of Selected Exchanges for cryptocurrency c on date t
- $Volume_{c,t,h_i,l,k}$ is the total volume traded of cryptocurrency c against USD on date t during partition l on the Selected Exchange k
- $vwmp_{c,t,h_i,l,k}$ is the volume-weighted median price of partition l on t for cryptocurrency c , using all the trades on Selected Exchange k . It is equal to the price of trade pair m in partition l , $P_{c,t,h_i,l,k}$, that satisfies:

$$\sum_{j=1}^{m-1} Volume_{c,t,h_i,k,j} \leq \frac{\sum_{j=1}^{N_l} Volume_{c,t,h_i,k,j}}{2} \quad \text{and} \quad \sum_{j=m+1}^{N_l} Volume_{c,t,h_i,k,j} < \frac{\sum_{j=1}^{N_l} Volume_{c,t,h_i,k,j}}{2} \quad (2)$$

- N_l in (2) is the number of executed trades in partition l

Then the Euronext Crypto Index level for cryptocurrency c for fixing h_i on t is computed as:

$$ECI_{t,h_i,c} = \frac{\sum_{l=1}^{12} P_{c,t,h_i,l}}{12} \quad (3)$$

3.2 Calculation formula - real time computation

On every Euronext trading day, every 15 seconds, on t between 07:15 and 22:30 CET, Euronext Crypto Real Time Indices - are calculated based on the collection of all observable transactions of all Eligible Exchanges over a specific window of 15 seconds preceding t . The calculation methodology of the Euronext Crypto Real Time Index level for cryptocurrency c on time t follows the steps below:

1. For each Eligible Exchange k_c , we create a dataset of all USD denominated trades occurring during the time-period $[t - 15seconds, t]$.
2. A volume-weighted median of trade prices is calculated for each Eligible Exchange on which trades occurred.
3. For each Eligible Exchange, if the absolute percentage deviation of the volume-weighted median price of the Eligible Exchange from the volume-weighted median price computed on all Eligible Exchanges is above 5%, the data of that exchange is considered anomalous. The exchange is then excluded from the Selected Exchanges for this time window.
4. The final Euronext Crypto Real Time Index level is computed as the exchange volume weighted average of the volume-weighted median prices computed in step above.

Given time t and cryptocurrency c the Euronext Crypto Real Time Index $ECRT_{c,t}$ is expressed as:

$$ECRT_{c,t} = \frac{\sum_{k=1}^{n_{c,t}} Volume_{c,t,k} \times vwmp_{c,t,k}}{\sum_{k=1}^{n_{c,t}} Volume_{c,t,k}} \quad (4)$$

Where,

- $n_{c,t}$ is the number of Eligible Exchanges for cryptocurrency c available on t
- $Volume_{c,t,k}$ is the total volume traded of cryptocurrency c against USD during the period $[t - 15seconds, t]$ on Eligible Exchange k
- $vwmp_{c,t,k}$ is the volume-weighted median price computed in step 2 above for cryptocurrency c , using all the trades on Eligible Exchange k occurring over the period $[t - 15seconds, t]$. It is equal to the price of trade pair m that satisfies:

$$\sum_{j=1}^{m-1} Volume_{c,t,k,j} \leq \frac{\sum_{j=1}^{N_l} Volume_{c,t,k,j}}{2} \quad \text{and} \quad \sum_{j=m+1}^{N_l} Volume_{c,t,k,j} < \frac{\sum_{j=1}^{N_l} Volume_{c,t,k,j}}{2} \quad (5)$$

- N_l in (5) is the number of executed trades over the period $[t - 15seconds, t]$

3.3 Data Filters - Clean Data

Data is identified as erroneous and therefore discarded when reported in the wrong format (trade price or trade size that are non-numeric, non-positive, or in a format that deviates from the expected one).

3.4 Delayed and Missing Data

The transactions that cannot be retrieved by the Index calculation time are disregarded. If, for any cryptocurrency, no transactions occur or can be retrieved for any exchange on a specific partition, this exchange is disregarded for the calculation of the affected Indices on that day for the specific time period. Any delay or absence of trade data to compute the end of day indices levels is reported to the Euronext Crypto Indices Steering Committee and the selected course of action is formally announced.

3.5 Exceptional Circumstances

The calculation of the Euronext Crypto Indices is obstructed when there are no reported transactions or all transactions are rejected as suspicious on all of the Selected Exchanges, or when no data is provided from the data provider, or due to any other unforeseen events.

In the event of failure of the data provider to deliver relevant data, the Euronext Crypto Indices Steering Committee will do its best effort to determine relevant cryptocurrency prices from alternative providers that are readily available.

In this scenario, Indices levels will be based on the cryptocurrency price determined by the Euronext Crypto Indices Steering Committee.

If, for any cryptocurrency, no transactions occur or can be retrieved for more than 3 consecutive business days, a Euronext Crypto Indices Steering Committee meeting will be called to determine the most appropriate action.

3.6 Rounding of Data

Indices values are computed with all decimals available. Official index levels and publication levels use the rounding policy defined in Table 3 section 11.

3.7 Calculation Frequency and Dissemination

The Euronext Crypto Indices are computed and published on every Euronext trading days (<https://www.euronext.com/en/trade/trading-hours-holidays>).

Real Time Indices are computed every 15 seconds of each minute, from 07:15 to 22:30 pm CET on every Euronext trading days.

Indices levels are published on the Compass Financial Technologies website (www.compass-ft.com), on Euronext website (www.euronext.com) and are distributed to Bloomberg and Refinitiv under the ticker symbols listed in table 3.

4 Index Governance

4.1 Index Administrator

Compass Financial Technologies (France) is the Administrator of the Index ("the Index Administrator"). The Index Administrator is responsible for the day-to-day management of the Index and is also responsible for decisions regarding the interpretation of these rules.

4.2 Index Calculation Agent

Compass Financial Technologies (France) is the Calculation Agent of the Euronext Crypto Indices. It is responsible for the day-to-day management of Indices computation according to this methodology.

4.3 Index Committees – Supervisor

Compass Financial Technologies has established governance functions to review and provide challenges on all aspects of the Indices determination process. Governance functions are managed by the Compass Committees and by the Euronext Crypto Indices Steering Committee.

Compass Oversight Committee:

The Compass Oversight Committee oversees all areas of the benchmark determination processes. It is responsible for supervising and controlling the Index operations team on all Compass Indices. It is also responsible for:

1. Periodic review of incidents
2. Making final decisions in case the Compass Index operations team are not capable or allowed to take decisions
3. Defining and implementing organisation procedures for the Compass Index operations team
4. Defining and overseeing measures that allow for mitigation of operational risks
5. Supervising internal or external audit results
6. The implementation and supervision of the potential codes of conduct that have to be implemented

Compass, using its own Committees, is responsible for:

1. Determining the calculation methodology and the rules governing the publication of the Euronext Cryptocurrency Indices
2. Making periodic reviews of the Euronext Cryptocurrency Indices to validate the robustness of the methodology and to analyse the impact of methodology changes
3. Adding or deleting exchanges in the Eligible Exchange list after consultation with the Oversight Committee and the Euronext Crypto Indices Steering Committee

Euronext Crypto Indices Steering Committee:

The Euronext Crypto Indices Steering Committee will:

1. Have the possibility to veto proposed changes regarding the Euronext Cryptocurrency Indices methodology
2. Have the possibility to consult Euronext Cryptocurrency Indices stakeholders
3. Regularly assess whether Euronext Cryptocurrency Indices offers a reliable and representative view of the market
4. Suggest the adding or deleting of exchanges in the Eligible Exchange list and having the possibility to veto proposed changes of this Eligible Exchange list

The Euronext Crypto Indices Steering Committee is composed of members from Compass and may include individuals or representatives of companies, academics, external counsels, or market participants.

The Euronext Crypto Indices Steering Committee assembles every quarter. However, at the request of a member of the committee, the Committee may meet on any other day of the year to discuss potential “market emergency” and “force majeure” events or any other situation, which makes an extraordinary meeting necessary.

All Committee decisions will be published without delay following the Committee decision.

The Euronext Crypto Indices Steering Committee members as of April 2023 are:

- Edouard Mouton, Compass Financial Technologies
- Guillaume Le Fur, Compass Financial Technologies
- Silvo Stroek, Euronext
- David Leblache, Euronext
- Gregory Gautier, Euronext

As of April 17th, 2023, Guillaume Le Fur chairs the Euronext Crypto Indices Steering Committee.

5 Methodology Changes - Maintenance

This methodology may be supplemented, amended in whole or in part, revised or withdrawn at any time. Supplements, amendments, revisions and withdrawals may also lead to changes in the way the Index is compiled or calculated or affect the Index in another way.

In the absence of exceptional circumstances affecting the Index calculation or methodology, this Methodology is reviewed annually. The review will include, inter alia, the following points:

1. Verify if the methodology and computation are still in line with the original purpose of the Indices
2. Make sure the quality and quantity of the input data remain sufficient

Changes made to this methodology are published after the review date and implemented on a reasonable time horizon.

Compass Financial Technologies may terminate a Euronext Crypto Index due to certain extraordinary market circumstances. These circumstances include, but are not limited to:

1. The liquidity in one of the underlying cryptocurrencies of a Euronext Crypto Index declines and becomes not sufficient enough to provide an efficient market
2. The underlying cryptocurrency of a Euronext Crypto Index experiences a contentious hard fork in which both forks survive

Changes or termination will be subject to the review of the Euronext Crypto Indices Steering Committee which will receive all the information related to the change or termination. In case of material changes, a notice will be provided at least two weeks in advance.

The results of the Euronext Crypto Indices Steering Committee will be published in a press release on Compass Financial Technologies website and distributed timely via Euronext channels, to data vendors and major news sources.

6 Expert Judgment

The Euronext Crypto Indices are based on written and transparent rules and procedures with the purpose of minimising as much as possible the exercise of discretion and expert judgment.

The Euronext Crypto Indices are built from input data that is not interpolated, extrapolated or adjusted. In case of lack of data, the last available data is employed.

Nevertheless, the exercise of expert judgment may become necessary in case of errors and Index restatements, delayed and missing data, hard forks, airdrops, or unexpected situations arising from market stress.

In the event that expert judgment is exercised, this will be done by resorting to the written procedures reported in the methodology and by communicating the decisions taken to the Euronext Crypto Indices Steering Committee and the Internal Compliance Function in order to prevent conflicts of interest and to protect the integrity and the independence of the Index determinations. In addition, the interest of the Index users and the market integrity will be taken into account.

7 Errors and Recalculations

Even though the process of Index calculation is completely automated and pre-defined, an error can be discovered after the publication of the Index.

In case of a material error the Index will be redetermined, and the Index clients will be notified about the error and the date of the publication of the redetermined Index. An error is considered material on the basis of its size, the dates of its discovery and of its occurrence, and the impact of the Index redetermination on the users. The discovery of any error is reported to Euronext Crypto Indices Steering Committee.

In case a material error is discovered and the Administrator recognises a manipulation or an attempted manipulation of the Index level or the input data it will be reported to the regulator.

8 Potential Limitations

The issues presented in the following non-exhaustive list may limit the ability of some of the Indices to represent the market they are intended to measure, the ease of replication by investors, and more generally the usefulness of the Indices to users.

- The market the Index is meant to measure is volatile. In particular, cryptocurrencies may be subject to market movements much more than traditional asset classes such as stocks and bonds as a consequence of illiquidity, market trends and changes to market structure.
- The input data provider may fail to provide accurate and timely data.
- Cryptocurrency prices are derived from several trading venues, each of which is characterised by a different market structure and the price of a cryptocurrency may sometimes be different across different trading venues. In addition, cryptocurrency exchanges may suffer problems that usually do not affect regulated asset exchanges, such as distributed denial-of-service, trading halt, hacking of private keys, lack of standards comparable to those of regulated exchanges, rapidly evolving technology and uncertain legal frameworks. Finally, the publication of the Indices may cease. Should this occur, the regulation regarding user transitions will be followed, but the existence of a suitable substitute is not assured.

9 Cases not covered in rules

In cases which are not expressly covered in these rules, operational adjustments will take place along the lines of the aim of the index. Operational adjustments may also take place if, in the opinion of the Index Administrator, it is desirable to do so to maintain a fair and orderly market in derivatives on this index and/or this is in the best interests of the investors in products based on the Index and/or the proper functioning of the markets. The Index Administrator will report to the Supervisor if it took a decision about a case which is not specifically covered in the rules for comments and review.

10 Liability

The Index Administrator and the Supervisor are not liable for any losses resulting from supplementing, amending, revising or withdrawing the rules for the index. The Administrator will do everything within its power to ensure the accuracy of the composition, calculation, publication and adjustment of the Index in accordance with relevant rules. However, neither the Index Administrator, nor the Supervisor are liable for any inaccuracy in index composition, calculation and the publication of the Index, the information used for making adjustments to the Index and the actual adjustments. Furthermore, the Index Administrator and the Supervisor do not guarantee the continuity of the composition of the Index, the continuity of the method of calculation of the Index, the continuity of the dissemination of the index levels, and the continuity of the calculation of the Index.

11 Euronext Crypto Indices - Codes - Rounding

Euronext Crypto Indices (end of day vendors codes)					
Index	ISIN	Euronext Refintiv Mnemo	Bloomberg Code	Rounding (official levels)	Rounding (publication levels)
Euronext Crypto Index Bitcoin	NLIX00000074	ECBTC	ENXBTC	2	2
Euronext Crypto Index Ethereum	NLIX00000082	ECETH	ENXETH	3	3
Euronext Crypto Index Solana	NLIX00000090	ECSOL	ENXSOL	5	4
Euronext Crypto Index Cardano	NLIX00000108	ECADA	ENXADA	5	4
Euronext Crypto Index Ripple	NLIX00000116	ECXRP	ENXXRP	5	4
Euronext Crypto Index Polkadot	NLIX00000124	ECDOT	ENXDOT	5	4
Euronext Crypto Index Polygon	NLIX00000132	ECMAT	ENXMATIC	5	4
Euronext Crypto Index Avalanche	NLIX00000157	ECAVA	ENXAVA	5	4
Euronext Crypto Index Litecoin	NLIX00001049	ECLTC	ENXLTC	4	5
Euronext Crypto Index Chainlink	NLIX00001056	ECLIN	ENXLINK	4	5
Euronext Crypto Index Uniswap	NLIX00001064	ECUNI	ENXUNI	4	5
Euronext Crypto Index Stellar	NLIX00001072	ECXLM	ENXXLM	4	5
Euronext Crypto Index Bitcoin Cash	NLIX00001080	ECBCH	ENXBCH	4	5
Euronext Crypto Index Filecoin	NLIX00001098	ECFIL	ENXFIL	4	5
Euronext Crypto Index Lido Dao	NLIX00001106	ECLDO	ENXLDO	4	5
Euronext Crypto Index Near	NLIX00001114	ECNEA	ENXNEAR	4	5
Euronext Crypto Index Internet Computer	NLIX00001122	ECICP	ENXICP	4	5
Euronext Crypto Index Algorand	NLIX00001130	ECALG	ENXALGO	4	5
Euronext Crypto Index FANTOM	NLIX00001148	ECFTM	ENXFTM	4	5
Euronext Crypto Index EOS	NLIX00001155	ECEOS	ENXEOS	4	5
Euronext Crypto Index Cosmos	NLIX00001163	ECATO	ENXATOM	4	5
Euronext Crypto Index Aave	NLIX00001171	ECAAV	ENXAAVE	4	5
Euronext Crypto Index Decentraland	NLIX00001189	ECMAN	ENXMANA	4	5
Euronext Crypto Index Tezos	NLIX00001197	ECXTZ	ENXXTZ	4	5
Euronext Crypto Index Curve DAO Token	NLIX00001205	ECCRV	ENXCRV	4	5
Euronext Crypto Index Maker	NLIX00001213	ECMKR	ENXMKR	3	3
Euronext Crypto Index SAND	NLIX00001221	ECSAN	ENXSAND	4	5
Euronext Crypto Index Loopring	NLIX00001239	ECLRC	ENXLRC	4	5
Euronext Crypto Index Basic Attention Coin	NLIX00001247	ECBAT	ENXBAT	4	5
Euronext Crypto Index TRON	NLIX00001254	ECTRX	ENXTRX	4	5
Euronext Crypto Index NEO	NLIX00001262	ECNEO	ENXNEO	4	5
Euronext Crypto Index THETA	NLIX00001270	ECTHE	ENXTHETA	4	5
Euronext Crypto Index Enjin	NLIX00001288	ECENJ	ENXENJ	4	5

Table 2: Euronext Crypto Indices - Publication Codes and Rounding policy

Euronext Crypto Indices (real time vendors codes)					
Index	ISIN	Euronext Refintiv Mnemo	Bloomberg Code	Rounding (official levels)	Rounding (publication levels)
Euronext Crypto Real Time Index Bitcoin	NLIX00000165	ERBTC	ENXRTBTC	2	2
Euronext Crypto Real Time Ethereum	NLIX00000173	ERETH	ENXRTETH	3	3
Euronext Crypto Real Time Solana	NLIX00000181	ERSOL	ENXRTSOL	5	4
Euronext Crypto Real Time Cardano	NLIX00000199	ERADA	ENXRTADA	5	4
Euronext Crypto Real Time Ripple	NLIX00000207	ERXRP	ENXRTXRP	5	4
Euronext Crypto Real Time Polkadot	NLIX00000215	ERDOT	ENXRTDOT	5	4
Euronext Crypto Real Time Polygon	NLIX00000223	ERMAT	ENXRTMAT	5	4
Euronext Crypto Real Time Avalanche	NLIX00000249	ERAVA	ENXRTAVA	5	4
Euronext Crypto Real Time Litecoin	NLIX00001296	ERLTC	ENXRTLTC	4	5
Euronext Crypto Real Time Chainlink	NLIX00001304	ERLIN	ENXRTLIN	4	5
Euronext Crypto Real Time Uniswap	NLIX00001312	ERUNI	ENXRTUNI	4	5
Euronext Crypto Real Time Stellar	NLIX00001320	ERXLM	ENXRTXLM	4	5
Euronext Crypto Real Time Bitcoin Cash	NLIX00001338	ERBCH	ENXRTBCH	4	5
Euronext Crypto Real Time Filecoin	NLIX00001346	ERFIL	ENXRTFIL	4	5
Euronext Crypto Real Time Lido Dao	NLIX00001353	ERLDO	ENXRTLDO	4	5
Euronext Crypto Real Time Near	NLIX00001361	ERNEA	ENXRTNEA	4	5
Euronext Crypto Real Time Internet Computer	NLIX00001379	ERICP	ENXRTICP	4	5
Euronext Crypto Real Time Algorand	NLIX00001387	ERALG	ENXRTALG	4	5
Euronext Crypto Real Time FANTOM	NLIX00001395	ERFTM	ENXRTFTM	4	5
Euronext Crypto Real Time EOS	NLIX00001403	EREOS	ENX RTEOS	4	5
Euronext Crypto Real Time Cosmos	NLIX00001411	ERATO	ENXRTATO	4	5
Euronext Crypto Real Time Aave	NLIX00001429	ERAAV	ENXRTAAV	4	5
Euronext Crypto Real Time Decentraland	NLIX00001437	ERMAN	ENXRTMAN	4	5
Euronext Crypto Real Time Tezos	NLIX00001445	ERXTZ	ENXRTXTZ	4	5
Euronext Crypto Real Time Curve DAO Token	NLIX00001452	ERCRV	ENXRTCRV	4	5
Euronext Crypto Real Time Maker	NLIX00001460	ERMKR	ENXRTMKR	3	3
Euronext Crypto Real Time SAND	NLIX00001478	ERSAN	ENXRTSAN	4	5
Euronext Crypto Real Time Loopring	NLIX00001486	ERLRC	ENXRTLRC	4	5
Euronext Crypto Real Time Basic Attention Coin	NLIX00001494	ERBAT	ENXRTBAT	4	5
Euronext Crypto Real Time TRON	NLIX00001502	ERTRX	ENXRTTRX	4	5
Euronext Crypto Real Time NEO	NLIX00001510	ERNEO	ENXRTNEO	4	5
Euronext Crypto Real Time THETA	NLIX00001528	ERTHE	ENXRTTHE	4	5
Euronext Crypto Real Time Enjin	NLIX00001536	ERENJ	ENXRTENJ	4	5

Table 3: Euronext Crypto Indices - Real time - Publication Codes and Rounding policy

12 Disclaimer

Nothing contained herein shall constitute or shall be deemed to constitute a financial, legal, tax or other advice of any kind, or a solicitation to purchase, sell or invest in any financial products or to engage in any financial strategy. Compass Financial Technologies SA or any of its affiliates (“Compass”) (i) does not guarantee the adequacy, the accuracy, the timeliness, the completeness, the evolution and/or the movements of its indices or any data included therein (the “Indices” or the “Index”), (ii) shall not have any liability for any errors, omissions, delays or interruptions therein and (iii) makes no warranty, express or implied, as to results to be obtained by owners of any securities, or by any other person or entity from the use of the Indices. Compass does not make any express or implied warranties, and expressly disclaims, all warranties of merchantability or fitness for a particular purpose or use with respect to the Indices. Without limiting any of the foregoing, in no event shall Compass have any liability for any lost profits or indirect, punitive, special or consequential damages or losses, even if notified of the possibility thereof.

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