Coin Metrics

INDEX OVERSIGHT COMMITTEE

Q1 2021 REVIEW MEETING MINUTES

Date	09-Feb-2021
Time	3:30pm - 5:00pm

Agenda:

Standing Agenda Items

- 1. Conflicts Register, Complaints and Expert Judgement Register Review
- 2. In-Process Consultations
- 3. Indexes in Production Review
- 4. Reference Rate Review
- 5. Products Approval Requests

Unique Agenda Items

- 6. Rebalance Reference Date Review
- 7. Tether Addition to Market Selection Framework
- 8. Creating Index Specific Reference Rates

Attendees:

Name	Role	Attendance
Tim Rice	Chair	Dial-in
Kerry Yndestad	Member	Dial-in
Benjamin Celermajer	Contributor	Dial-in
Kevin Lu	Contributor	Dial-in

Quorum was met and it was noted that there was not external membership presence

Conflicts Register, Complaints and Expert Judgement Register Review

No conflicts identified during the meeting.

No complaints received in Q4.

Expert judgement applied to the determination or calculation of any CMBI Index during Q4 2020.

 XRP - decision to remove XRP from the January index rebalance in light of ongoing SEC investigations. The decision to do so was the result of Coinbase, Bitstamp, Binance.US and Bittrex either delisting XRP or announcing they would through January. When exploring constituent eligibility in indexes, investability is a key consideration and with these actions the OC deemed it difficult for a US investor base to access XRP markets, thus negatively impacting the investability of CMBI multi asset products.

Continued Expert Judgement is applied to the determination of Free Float Supply for assets that are not currently supported by CM Network Data Pro and production ready node infrastructure. These include:

- EOS
- Polkadot
- Binance Chain

Expert Judgement was applied to the determination of Reference Rates relating to the market selection and reclatulation of rates.

- The Oversight Committee reviewed 53 instances where markets were manually removed from our whitelist, reflecting approximately 1.8 percent of total eligible markets.
- The Oversight Committee also reviewed 92 instances where markets were manually added to our whitelist, reflecting approximately 3 percent of total eligible markets.
- Recalculations to small portions of 16 assets were conducted:
 - Recalculated rev-usd from 2020-04-09 to 2020-09-28
 - Recalculated etc-usd from 2021-01-01 to present
 - Recalculated celo-usd from 2020-09-28 to present

- Recalculated ewt-usd from 2019-09-18 to present
- Recalculated rep-usd from 2020-08-01 to present
- Recalculated btg-usd from 2020-06-15 to 2020-09-01
- Recalculated ant-usd from 2018-04-27 to 2020-09-08
- Recalculated mln-usd from 2018-10-25 to 2020-09-04
- Recalculated mco-usd from 2020-11-01 to present
- Recalculated ugc-usd from 2020-10-30 to present
- Recalculated shr-btc from 2020-11-14 to present
- Recalculated gash-usd from 2018-10-09 to 2020-07-01
- Recalculated etp-usd from 2017-11-10 to present
- Recalculated amb-usd from 2020-07-01 to present
- Recalculated bft-usd from 2019-03-22 to present
- Recalculated lym-usd from 2020-07-01 to present

In-Process Consultations

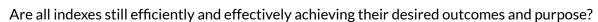
No consultations in process

Indexes in Production Review

Publicly announced / available:

- CMBI Bitcoin (+Total)
- CMBI Ethereum (+Total)
- CMBI Bitcoin Hashrate
- CMBI Observed Work
- CMBI Bitcoin and Ethereum
- CMBI 10
- CMBI 10 Excluding Bitcoin
- CMBI 10 Even

Privately in production:



- The Oversight Committee believes that the indexes still serve the purpose they are defined to serve.
- Last quarter, the Oversight Committee discussed the high turnover of the CMBI 10 and potential investability concerns. Since the last meeting, turnover has been as follows:

- October None
- November Binance out, Cardano in
- December XRP out, Binance in (exceptional circumstance due to XRP regulatory issues
- o January Bitcoin SV out, Uniswap in
- The committee reviewed the historical turnover of the CMBI10 as provided by the Index Function.
 - January 2020 (0), February (0), March (0), April (0), May (0), June (0), July (0), August (2), September (2, including new listed asset DOT)
 - It was noted that the USD value of the turnover is relatively low given the dominance in Bitcoin/Ethereum in indexes
 - Pro of the current design: It maintains a high level of relevance in a rapidly changing industry.
 - Con of the current design: The concern is that institutions might see the high level of turnover as an undesirable characteristic of a passive index.
 - The Oversight Committee decided that the current monthly rebalance frequency did best reflect the state of markets and that current buffering rules sufficiently prevented assets entering and exiting the CMBI10 at high frequencies. No change requested as of now.

Any other commentary / observations on existing index products?

None

Reference Rates Review

Publicly announced / available:

- Reference rates coverage universe was expanded to 313 assets.
- The following 7 assets are removed from the coverage universe. Removals are due to token migrations, token rebrandings, and insufficient volumes.
 - Aave (lend) removed due to token migration from lend to aave.
 - Golem (gnt) removed due to token migration from gnt to glm.
 - Flexacoin (fxc) removed due to token migration from Flexacoin to Amp.
 - BHEX Token (bht) removed due to token migration from BHEX Token to HBC Token.
 - Crowd Machine (cmct) removed due to insufficient volumes from constituent markets.
 - Stratis (strat) removed due to token migration from strat to strax.
 - Oxen (loki) removed due to rebranding from Loki to Oxen.

Products Approval Requests

No new products in development that require approval from the OC.

There have been several client requested index products that may require development effort through Q1/Q2 2021. Tentatively the Oversight Committee has approved the discussed products to be developed should client demand be confirmed.

Are there any proposed changes to existing products that require OC sign-off?

Increase the time between Rebalance 'Effective Date and the 'Reference Date'.
 Discussed below in the section Rebalance 'Reference Date Review'.

What products are production ready and require OC signoff for launch?

NA

Rebalance Reference Date Review

Currently the Reference Date for Index Rebalances is two business days before the Effective Date. This means that generally we only have a one business day turnaround between selecting constituents and re-weighting the index. This is because NDP metrics are only produced in the early hours of the business day before the Effective Date.

Problem: This does not leave potential asset managers with much time to rebalance their portfolios in order to reduce turnover costs and market impact. Our availability of network metrics is also fragile so a longer rebalance window allows us to fix any potential problems.

Proposal: Move the Rebalance Reference Date to 5 business days before the Effective Date.

Decision/Action: move the Rebalance Reference Date to 3 Business days before the Effective Date

Adding Tether/Stablecoin Markets to the CM Market Selection Framework

Discussion points:

- Why are we even considering adding Tether markets?
- Should we consider splitting the Reference Rate Methodology into two classes (large cap and small cap), with Tether only being applied to small cap?

Decision/Action: Continue to research the applicability and provide backtesting of performance during volatile USDT periods. Also await and monitor any NYAG announcements that are upcoming in relation to their Tether investigation.

Creating Index Specific Reference Rates

Discussion points:

- A key consideration for index design is investability which entails access to markets.
 This is not a consideration for creating a robust market price.
- As such, should we consider having different market selection frameworks for indexes and reference rates?
- This could also further enhance and differentiate the index brand from reference rates (a question that comes up a bit in conversation).

Matrix of top 10 assets and showing clients the volumes/robustness/depth of markets for them to

Decision/Action: Conduct analysis of a selection of the top assets that we may consider for single asset indexes and their volumes/depth and performance with a reduced market selection framework against the existing methodology. The Index Function is to present the results to the OC at next quarter's meeting.