

Consultation on Index Methodology Change for MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen)

This consultation may or may not lead to the implementation of any or all of the proposed changes in the highlighted or any other MSCI indexes. Consultation feedback will remain confidential. MSCI may publicly disclose feedback if specifically requested by specific market participants. In that case, the relevant feedback would be published together with the result of the consultation.

24 October 2022

Executive Summary

Proposal

MSCI proposes changes to the MSCI Global Quarterly Private Infrastructure Asset Index (Unfrozen) methodology

1. Change in return calculation methodology at asset level
 - a. Monthly interpolation of Equity Value and Enterprise Value
 - b. Apportionment of Net Capital Invested and Distributions (where timing of cash-flows is not provided)
 - c. Return calculation based on Equity Capital Employed
2. Change in Index weighting methodology
 - a. Index return aggregation based on Equity Capital Employed
3. Data Collection
 - a. On a moving forward basis >> Split Net Capital Invested (NCI) into Capital Invested and Capital Returned
 - b. Rule-based approach proposed for history, where split of NCI is not available

Executive Summary

Benefits

- Introduce methodology best-practices for index calculation
- Better alignment with Global Investment Performance Standards (GIPS)

Consultation Timelines

- Consultation Launch – 24 October 2022
- Consultation Completion – 30 November 2022
- MSCI Decision Communication – 12 December 2022

Implementation

- Implement consultation outcome along with Q4 2022 index release – May 2023
- The methodology changes are proposed to be implemented retrospectively with a restatement to the unfrozen index history
- Exact dates of implementation (including a research release of Q3 2022 results) to be announced along with the decision communication on 12-Dec-2022

Methodology Change Proposal : Interpolation and Apportionment of Cash-flows

- All return calculations in the system are performed on a monthly basis and compounded for higher aggregation lengths

Current methodology

Equity Value

Equity Value of previous quarter-end is held down (kept unchanged) in the subsequent intervening months

Net Capital Invested*

Net Capital Invested for the quarter is timed at quarter-end months as per data provision

Distributions

Distributions provided for the quarter are timed at quarter-end months as per data provision

Proposed Methodology

Equity Value in intervening months is **interpolated** based on the quarter start and quarter end Equity Values and adjusted for monthly Net Capital Invested

Where monthly Capital Invested / Capital Returned is not provided, the corresponding quarterly amounts are **apportioned** equally over the three months of the quarter

Where monthly Distributions are not provided, the Distributions for the quarter are **apportioned** equally over the three months of the quarter

Methodology Change Proposal: Asset-level Calculation

Changes to performance calculation methodology for headline measures – Total Return, Capital Growth and Income Return

Current methodology

Total Return

$$Total\ Return_t = \left(\frac{EQV_t - EQV_{t-1} - NCI_t + Dist_t}{EQV_{t-1}} \right) * 100$$

Capital Growth

$$Capital\ Growth_t = \left(\frac{EQV_t - EQV_{t-1} - NCI_t}{EQV_{t-1}} \right) * 100$$

Income Return

$$Income\ Return_t = \left(\frac{Dist_t}{EQV_{t-1}} \right) * 100$$

Proposed Methodology

$$Total\ Return_t = \left(\frac{EQV_t - EQV_{t-1} - NCI_t + Dist_t}{EQV_{t-1} + CI_t} \right) * 100$$

$$Capital\ Growth_t = \left(\frac{EQV_t - EQV_{t-1} - NCI_t}{EQV_{t-1} + CI_t} \right) * 100$$

$$Income\ Return_t = \left(\frac{Dist_t}{EQV_{t-1} + CI_t} \right) * 100$$

EQV_t = Equity Value of the direct infrastructure investment

Dist_t = Income distributed during the month

NCI_t = Net Capital Invested in month t, = Capital Invested in month t – Capital Returned in month t

CI_t = Capital Invested in month t

t is the month for which return is calculated

Methodology Change Proposal: Portfolio & Index-level Weighting

Changes to index weighting methodology to be based on Equity Capital Invested[^] compared to period-end Equity Value

Current methodology

Portfolio

NA

Index

$$Index\ Return_t = \sum_{i=1}^n \left(\frac{AssetEQV_{i,t}}{IndexEQV_t} * AssetTR_t \right)$$

AssetEQV_{it} = Equity Value of the 'i' th direct infrastructure investment for month t
 IndexEQV_t = Aggregate Equity Value of infrastructure investments in Index for month t
 AssetTR_{it} = Total return of the 'i' th infrastructure investment asset for month t

Proposed Methodology

$$Portfolio\ Return_t = \left(\frac{\sum_{i=1}^n (EQV_{i,t} - EQV_{i,t-1} - NCI_{i,t} + Dist_{i,t})}{\sum_{i=1}^n (AssetEQV_{i,t-1} + AssetCI_{i,t})} \right)$$

$$Index\ Return_t = \left(\frac{\sum_{i=1}^n (EQV_{i,t} - EQV_{i,t-1} - NCI_{i,t} + Dist_{i,t})}{\sum_{i=1}^n (AssetEQV_{i,t-1} + AssetCI_{i,t})} \right)$$

n is the number of infrastructure investment assets within the portfolio, index sample
 i is the infrastructure investment asset i from the index sample
 t is the month for which return is calculated
 AssetCI_t = Capital Invested in the asset in month t

Data Provision Requirements

Current Requirements

- A mandatory core set of data used for the calculation of headline measures, is required for all investments. The set includes Equity Value, **Net Capital Invested** and Distributions

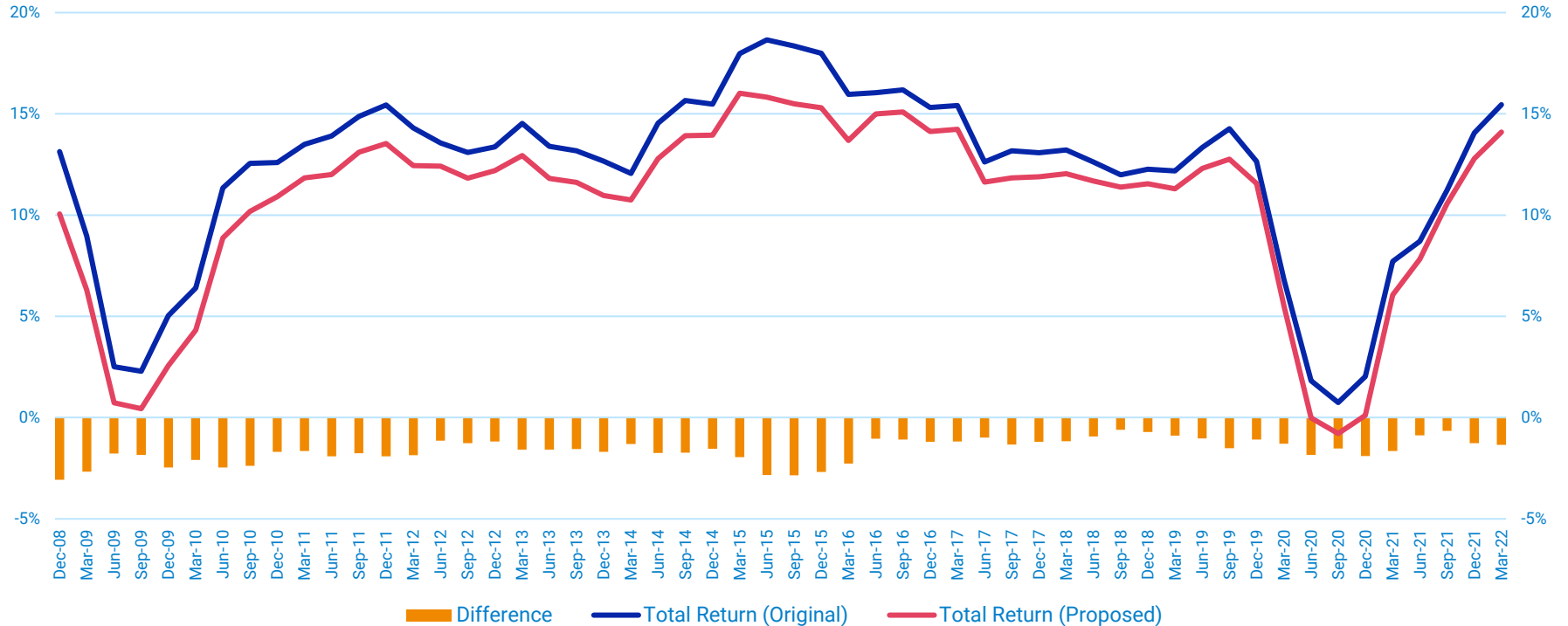
Proposed Requirements for Q3 2022 reporting and onwards

- A mandatory core set of data used for the calculation of headline measures, is required for all investments. The set includes Equity Value, **Capital Invested**, **Capital Returned** and Distributions
- Capital Invested and Capital Returned are proposed to be added as separate data fields in the data collection template
- Capital Invested, Capital Returned and Distributions are recommended to be provisioned as per the timing (month) of cash-flow

MSCI Proposal for Historical Data Collection

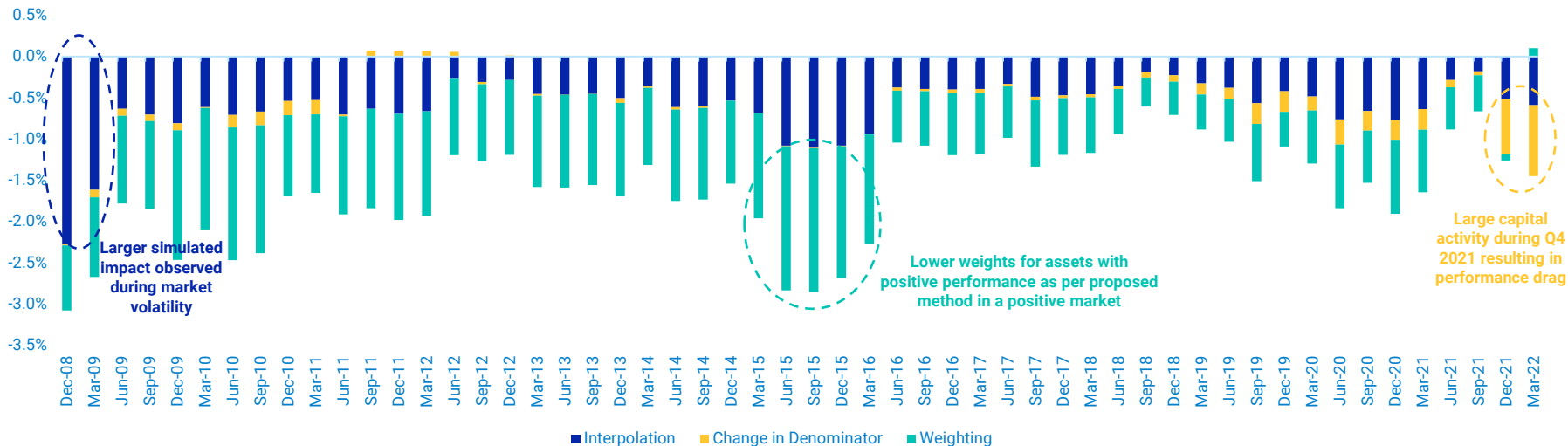
- Where a split of NCI into Capital Invested and Capital Returned is **not available for historical periods**, MSCI proposes the following rules-based approach:
 - If provided $NCI \geq 0$, Capital Invested = NCI, Capital Returned = 0
 - If provided $NCI < 0$, Capital Returned = NCI, Capital Invested = 0

Simulated Impact Analysis: 12m Total Return Index level



Simulated Impact Analysis: 12m Total Return Index level

(Split by proposed methodology change)



- Proposed change in interpolation and apportionment would result in a performance drag as per simulated index results:
 - For e.g. an asset higher Equity Value t-1 in the denominator compared to current methodology
- Proposed change in weighting would result in performance drag as per simulated index results:
 - For e.g. an asset with positive performance is contributing to index calculation with a lower weight i.e. based on Equity Value T-1

Discussion Points

1. Do you agree with the proposal to change the asset return calculation methodology to be based on Equity Capital Employed?
2. Do you agree with the proposal to interpolate the Equity Value for intervening months adjusted for Net Capital Invested?
3. Where timing of external cash-flows is not provided on a monthly basis, do you agree with the proposal to apportion the Capital Invested, Capital Returned and Distributions across months of the quarter?
4. Do you agree with the proposal to change index weighting methodology to be based on Equity Capital Employed?
5. Do you agree with the new data provision requirement* on the mandatory data points?
6. Do you agree with the proposed rules-based approach for historical data collection of split of Net Capital Invested?
7. Do you agree with the proposal to implement the methodology enhancements retrospectively to the unfrozen index history?

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