

MSCI GLOBAL QUARTERLY PROPERTY FUND INDEX (UNFROZEN) METHODOLOGY

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1 Introduction

The objective of the MSCI Global Quarterly Property Fund Index (Unfrozen) (“GPMI”) is to represent the performance of global unlisted open-ended pooled real estate funds that are valued quarterly. The GPMI is value-weighted based on the monetary value of its constituent property funds and the returns are calculated in US Dollars (USD) using fixed currency conversion methodology.



2 Methodology Documentation Set

The construction and maintenance rules for the GPFI are collectively described in the following documents:

2.1 MSCI REAL ESTATE INDEX POLICIES

The [MSCI Real Estate – Index Policies](#) document describes the various governance policies related to the construction, maintenance and termination of the MSCI Private Real Estate Indexes to provide consistency in decisions and avoid ambiguity in its responses to particular events.

2.2 MSCI PROPERTY FUND INDEXES METHODOLOGY

The [MSCI Property Fund Indexes Methodology](#) describes the general methodology that is being used for the calculation of the MSCI Property Fund Indexes and includes the methodology for the index composition, data requirements and index calculations.

2.3 MSCI GLOBAL QUARTERLY PROPERTY FUND INDEX (UNFROZEN) METHODOLOGY

This document includes the rules and methods specific to the GPFI.

3 MSCI Global Quarterly Property Fund Index (Unfrozen)

3.1 INITIAL INCLUSION REQUIREMENTS

INCLUSION REQUIREMENTS FOR MSCI GLOBAL QUARTERLY PROPERTY FUND INDEX (UNFROZEN)

In addition to the standard MSCI requirements for MSCI Property Fund Indexes (refer to [MSCI Property Fund Indexes Methodology](#) for further details), there are additional eligibility requirements for initial inclusion in the GPFI. The fund should:

1. Have a minimum of 85% of their Gross Asset Value (GAV) invested in direct property
2. Have their underlying direct property performance measured by MSCI at least quarterly
3. Be open-ended or semi open-ended. In case a fund closes to new contributions or redemptions, its inclusion in the index will be reviewed. Semi open-ended funds are open-ended funds where investors may be subject to an initial "lock in" for the first 3 to 5 years of the life of the fund during which either,
 - a. investors are not permitted to redeem their investment, or
 - b. redemptions by investors are restricted to a maximum fixed percentage of their investment in any one year
4. Have a GAV greater than USD 100 Million¹ (funds not denominated in USD will be converted at latest quarter's end exchange rate).
5. Carry no more than 60% leverage, where leverage is defined as the ratio of total debt to the fund's total Gross Asset Value

3.2 CHANGE IN COMPOSITION

The addition of new funds and withdrawal/termination of existing funds are normal events in the evolution of the MSCI Property Fund Indexes. There are additional requirements and clarifications for the GPFI.

¹ Based on this criteria assessment using latest period GAV at the point of inclusion, the fund will be included with full history



New Funds:

- are required to provide sufficient and complete data of their investment performance for a minimum of either four quarters or the period from date of launch of the fund.

Removed/Withdrawn Funds:

- Withdrawal from the Index should be through written communication to MSCI.

Re-admitted Funds:

- In order to be re-admitted to the Index, the funds must provide MSCI with the data to calculate their investment performance during the whole period since their last inclusion in the Index.
- Re-admitted funds are subject to the same eligibility requirements as potential new constituents.

Formal communication of a material change in the index composition will be done through an Index Announcement made available at www.msci.com, in accordance with the thresholds as defined in the [MSCI Real Estate – Index Policies](#).

3.3 INDEX SERIES

The Standard Index publication for GPFI is comprised of the **MSCI Global Quarterly Property Fund Index (Unfrozen) – Fund level Series**: The NAV Series are value weighted and measures Net Asset Value (NAV) returns compiled from NAV and other investment related data collected at fund level.

3.4 SUB-INDEXES

GPFI currently comprises of a Standard Index (refer to section 3.3) and regional sub-indexes based on funds' regional investment strategy as per funds' exposure:

- **MSCI Global Quarterly Property Fund Index (Unfrozen) – All Regions**
- **MSCI Global Quarterly Property Fund Index (Unfrozen) – Asia Pacific**
- **MSCI Global Quarterly Property Fund Index (Unfrozen) – Europe**
- **MSCI Global Quarterly Property Fund Index (Unfrozen) – North America**

Each of these Indexes has a base date of December 2007.

4 Data Provision Requirements

4.1 NET ASSET VALUE REPORTING REQUIREMENTS

In addition to the standard requirements, as part of the MSCI Global Data Standards for Real Estate Investments, there are additional requirements for the NAV. These requirements are:

1. Vehicles are required to report their NAV on at least a quarterly basis and should have done so for the whole of the period of their performance history within the Index.
2. Constituents of the Index must agree to calculate their NAV on a consistent basis from quarter to quarter. This basis must be specified in their own articles of association (or equivalent).
3. Each fund's NAV should be based on the valuation of at least 95% of the value of its property portfolio. The valuation must also cover properties held through joint or indirect investments. Any other indirect property investments, such as shares in listed property companies and derivatives, should also be re-valued.
4. The revaluation of the property portfolio should be undertaken each quarter as per Market Value² definition determined by the International Valuation Standards or equivalent.

² Refer to [MSCI Standards of Real Estate Valuations](#) for more details



5 Index Calculation Methodology

5.1 METHODOLOGY TRANSITION

MSCI consulted with the real estate investment community on the incorporation of a time-weighted return methodology including adjustment for daily-weighted external cash flows for use in the MSCI Property Fund Indexes methodology for return calculation and index weighting methodology for MSCI Global Quarterly Property Fund Index.

As announced in April 2020 following the public [consultation](#), the new methodology is implemented starting with Q3 2021 results reporting of GPFI. The methodology for GPFI has been changed to align it with the methodology changes made to underlying regional indexes.

Starting Q3 2021 reporting, the GPFI Methodology is constructed by applying the Time-Weighted Return index calculation methodology (with the exception of UK and USA Property funds) as detailed in the [MSCI Property Fund Indexes Methodology](#) (Section 4.3). Until Q2 2021, the methodology was constructed by applying the Unitized index calculation methodology (with exception of USA property funds and Canada property funds for all periods and Pan-Asia property Funds from July 2017 to June 2020) as detailed in the [MSCI Property Fund Indexes Methodology](#) (Section 4.2).

While the performance of UK property funds in GPFI will be calculated using Time weighted return (TWR) methodology starting with index results of Q1 2022, the performance of USA property funds in GPFI will continue to use the Modified Dietz calculation methodology. The performance of Pan-Asia funds in GPFI will be calculated based on Time-weighted return methodology from the quarter ending June-2017. Prior to this, the performance in GPFI will continue to be calculated as per unitized methodology. Longer term returns are calculated based on the combination (splicing) of the methodologies as outlined in the illustration below.

Table 1: Splicing of Index Calculation Methodology

| Sub-index | Index Constituents by Region/Strategy | Index Calculation Methodology | | |
|---------------|---------------------------------------|-------------------------------|---------------------|----------------------|
| | | Modified Dietz | Unitized | Time-Weighted Return |
| Asia Pacific | Pan-Asia* | - | Until March 2017 | April 2017 onwards |
| | Australia (Core Wholesale) | - | Until June 2021 | July 2021 onwards |
| Europe | Pan-Europe | - | Until June 2021 | July 2021 onwards |
| | UK | - | Until December 2021 | Jan 2022 onwards |
| | Netherlands | - | From 2008-2012 | - |
| North America | USA | All periods | - | - |
| | Canada | Until June 2021 | - | July 2021 onwards |

*This also applies to several funds which have been part of the same geographical region but did not meet the inclusion criteria of the Pan-Asia PFI, although they did meet the criteria for inclusion in the GPFI.

5.2 WEIGHTING

The funds included in the GPFI are weighted based on the index calculation methodology used to calculate the return for the fund. The constituent weighting for each index calculation methodology is summarized below and is detailed in the [MSCI Property Fund Indexes Methodology](#) (Section 4).

| Calculation methodology | Constituent Weighting based on |
|-------------------------|---|
| Modified Dietz | Weighted average equity |
| Unitized | NAV at the beginning of the month |
| Time-Weighted Return | Capital employed (which is derived as previous period Net Asset Value (NAV) adjusted by external cashflows) |



5.3 RULES FOR PERFORMANCE REPORTING

MSCI applies both the standard confidentiality rule and the fund dominance rule to determine if index results will be made available. Please refer to [MSCI Property Fund Index Methodology](#) for details.

5.4 UNFROZEN HISTORY REPORTING

The GPFI returns are unfrozen, which means they do not have fixed histories and returns will be updated when new historical data becomes available or historical corrections are made. Therefore inclusion of a new fund with historical data impacts the historical index returns. MSCI evaluates periodically the need to provide a frozen index series.

6 Appendix I: Inclusion criteria – MSCI Global Quarterly Property Fund Index (Unfrozen)

| Inclusion criteria - GPFI | |
|--|---|
| 1. Listing Status | Unlisted |
| 2. Fund Structure | Open or semi-open ended fund |
| 3. Minimum Direct Real Estate Investment | 85% of GAV |
| 4. Minimum Fund Size (by GAV) | USD 100 Million |
| 5. Maximum Fund Leverage | 60% of GAV |
| 6. Data provision requirement | Longest possible history, subject to a minimum of either four quarters, or the period from the date of launch of the fund |
| 7. Property Valuation | At least Quarterly valuation (internal or external) |



7 Appendix II: Versioning Table

| Version | Publication Date | Key Changes |
|---------|------------------|--|
| V1 | December 2021 | First release of the MSCI Global Quarterly Property Fund Index (Unfrozen) methodology document |



Contact us

realestate@msci.com

+ 44 20 7336 4783

AMERICAS

Canada + 1 416 687 6284

US + 1 212 804 3900

EUROPE, MIDDLE EAST & AFRICA

UK + 44 20 7336 9200

France + 44 20 7336 4783

Germany + 49 691 3385 900

Italy + 44 20 7336 9684

Spain + 34 93 467 7403

South Africa + 27 11 656 2115

Sweden + 46 8 400 252 30

ASIA PACIFIC

Australia + 61 2 9033 9300

Hong Kong + 852 2844 9333

Singapore + 65 6826 9339

Japan + 81 3 5211 1455

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