

# AREF / IPD UK Quarterly Property Fund Index Rules

Product Management

February 2013

## 1 The Index

- 1.1 The AREF / IPD UK Quarterly Property Fund Index (UK PFI) is a value-weighted index based on the most recent quarter-end Net Asset Value (NAV) of its constituent property funds. This index covers the pooled property fund market.
- 1.2 The UK PFI is owned, compiled, calculated and published by IPD.
- 1.3 IPD, as the compiler of the UK PFI, retains ultimate editorial control of all elements of the index. This includes, but is not limited to:
  - The right to delay the calculation and publication of index values
  - Altering the historic series of performance measures should it believe there are valid circumstances
  - To suspend or discontinue the publication of index values if it believes that there are circumstances that prevent the correct and consistent calculation of the index.
- 1.4 IPD also has the right to remove any funds that may jeopardise the accuracy and or timely publication of the index.
- 1.5 The UK PFI is scheduled for publication at 15.00 hrs on the 12th working day after the end of each calendar quarter, at which time IPD will publish the results on IPD.com ([www.ipd.com/ukfundindex](http://www.ipd.com/ukfundindex)).
- 1.6 The UK PFI product suite consists of the Index PDF, the Full Index PDF and the Digest. Definitions for each product are detailed in Appendix A.
- 1.7 Formal communication of Index changes, for example the inclusion of new funds, will be through an Index Announcement made available at [www.ipd.com/ukfundindex](http://www.ipd.com/ukfundindex). Notice will also be provided in the Full Index PDF and the Digest.

## 2 Index Composition

- 2.1 The UK PFI comprises:
  - a. All Property Fund Index

- b. All Balanced Property Fund Index
- c. Long Income Property Fund Index
- d. Specialist Property Fund Index
- e. Low Geared Balanced Property Fund Index
- f. Managed Property Fund Index
- g. Other Balanced Property Fund Index

2.2 Each Index has a base date of 31 December 1989 at 100 points, with the exception of the Specialist Property Fund Index and the Long Income Property Fund Index which are based at 31 December 2001 and 31 December 2011 respectively at 100 points.

2.3 The UK PFI is a frozen index. The headline index returns are frozen and thus once published, that quarter's data is appended to the frozen dataset and cannot be amended. The inclusion of a new fund with historic data does not impact upon the historic index returns. The aggregate medians and quartiles, in addition to the fund returns reported, are not frozen.

- a. The index was originally frozen in June 2005. From this date, funds can only contribute from their first submission that meets IPD eligibility requirements.
- b. In December 2012, due to exceptional circumstances, the index was restated to Q3 2012. At this point, historic fund contributions were refreshed to allow for the correction of data errors. The time periods for which each fund contributes remain unchanged.
- c. Index restatement is only considered in cases of technical changes to the Index or to correct a significant error, which if left unchanged, would seriously compromise the integrity and utility of the Index.

2.4 The constituents of the index series are defined as:

- a. **Managed property funds** – managed property pension funds excluding those classified as long income property funds.
- b. **Other balanced property funds** – all other types of balanced fund including open and closed-ended property unit trusts, common investment funds, open-ended property companies, partnerships and property authorised investment funds or other suitable structures and further excluding funds classified as long income property funds.
- c. **Low geared balanced property funds** - balanced funds, excluding those classified as long income property funds, whose net debt/equity ratio has been less than 25%, on average, as at the end of the current and the previous three quarters.
- d. **Specialist property funds** – funds that otherwise qualify for inclusion in the Index but which do not meet the conditions necessary to be included as a balanced fund or a long income property fund.
- e. **Long income property funds** – funds with a non-property specific performance objective to outperform long-term bonds or gilts. Funds typically maintain average unexpired lease

lengths of over 15 years. Lease length, tenant quality and minimum leverage, in addition to a diversified portfolio, aims to maintain consistent long term income.

- 2.5 Funds will be classified as either Balanced or Specialist depending mainly on their investor mandates but also with regard to the current composition of their portfolios. In general,
- a. funds will be classified as Balanced providing that their holdings of either office, retail, industrial or 'other property' account for no more than 70% of their portfolio, and
  - b. they are also diversified geographically so that no more than 70% of their portfolio is located in any one of the following regions: Central London (comprising the City, mid-town and the West End), Inner London, Outer London, South East, South West, Eastern, East Midlands, West Midlands, Yorkshire & Humberside, North East, North West, Scotland, Wales, Northern Ireland, Offshore UK (Channel Islands & Isle of Man).

*"Portfolio" means the gross asset value of the fund, including cash and other investments.*

- 2.6 The hierarchy of the Indices is defined below:
- a. **All Property Fund Index** - combines the All Balanced Property Fund Index, the Specialist Property Fund Index and the Long Income Property Fund Index.
  - b. **All Balanced Property Fund Index** - combines the Managed Property Fund Index and the Other Balanced Property Fund Index.
  - c. **Long Income Property Fund Index** – comprises long income property funds only.
  - d. **Specialist Property Fund Index** – comprises specialist property funds only.
  - e. **Low Geared Balanced Property Fund Index** - combines balanced funds that meet the leverage criteria defined in rule 2.4c.
  - f. **Managed Property Fund Index** – comprises managed property funds only, excluding those categorised as long income property funds.
  - g. **Other Balanced Property Fund Index** – comprises all types of balanced property funds except managed property funds and long income property funds.

## 3 Fund Inclusion

- 3.1 To be eligible for inclusion in the UK PFI, funds must:
- a. Have a minimum of 85% of their gross assets invested in the UK.
  - b. Have the investment performance of their direct property portfolio measured by IPD at least annually. IPD recommends Quarterly measurement.

- c. Be full members of the Association of Real Estate Funds.
- d. Have been open to new investors or have the possibility in the near future for investment by new investors. Funds such as joint ventures (the investors in which are expected to remain unchanged during the life of the fund) are, therefore, not eligible for inclusion.
- e. Report their Net Asset Value (NAV), following a portfolio revaluation, at least on a quarterly basis (preferably monthly) and to have done so for the entire of the period of their performance history within the UK PFI.

3.2 Funds must provide the data required to compile the UK PFI by completing the Data Collection Template.

3.3 As clients of IPD's Portfolio Analysis Service funds must provide their fund level data to IPD as specified in the current IPD UK Data Requirements booklet. Specifically, data for all Indirect Property Holdings (Section 4, IPD UK Data Requirements) and Vehicle Level Reporting (Section 5, IPD UK Data Requirements).

3.4 Funds must provide the data required to compile the UK PFI by 17.30 hrs on the 8th business day following the calendar quarter end. They must then have their IPD processed data signed off by 17.30 hrs of the 9th business day.

3.5 Each fund's NAV should be based on the revaluation of at least 95% of the value of its property portfolio. The revaluation 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.

3.6 Constituents of the Index must calculate their NAV data on a consistent basis from quarter to quarter. NAV should be calculated in accordance with the AREF Code of Practice unless the fund's articles (or equivalent) specifically state an alternative methodology.

3.7 To ensure consistency in all products produced by IPD, derivative information should be recorded as the following statement instructs:

Sector/segment specific derivative contracts should be allocated to their appropriate sector or segment whenever possible. If derivative contracts are included that cannot be assigned to a specific sector/segment, because they represent a variety of property types, or are derivatives based on a total market Index, they must be assigned to the segment 'Other Property Related Securities'.

3.8 Constituents of the Index must disclose quarterly to IPD the extent of their holdings in other funds (indirects / crossholdings) that are also constituents of the Index. Funds must inform IPD where the valuation dates of any joint or indirect property investments differ from that of those properties which are directly-held.

### 3.9 Funds joining the UK PFI will:

- a. Be required to provide data sufficiently complete to compile as long a history as possible of their investment performance, subject to a minimum of either five years, or the period from the date of launch of the fund.
- b. Be listed within the Full Index PDF and Digest, but not contribute to the Index, for their first data submission.
- c. Be listed within the Full Index PDF and Digest, but not contribute to the Index until IPD is satisfied that both data provision and data accuracy is sufficient.
- d. Be listed within the Full Index PDF and Digest, but not contribute to the Index until they reach minimum size. This is defined as having a NAV equal to or greater than that of the 9<sup>th</sup> decile fund within the All Balanced Property Fund Index for the forthcoming measurement period.

3.10 Where the eligibility of a fund or the classification of a fund is unclear, the UK Property Fund Index Consultative Group will be consulted as per rule 5.1b.

3.11 The reporting of fund results within the UK PFI products are shown to one decimal place. This is for presentation purposes only and the underlying data is held to more than one decimal place.

3.12 Only data provided to IPD for the calculation of fund results will be listed within the UK PFI products. Published figures will not be amended for presentation or individual fund purposes.

3.13 In accordance with rule 3.9a, funds must always provide performance data for disclosure in the index products for the longest possible time period. Full performance history shall be shown for that fund until the fund retires from the index or terminates. A change of mandate, structure, branding or manager, does not warrant the removal of historic performance from the Full Index PDF and Digest. However, in the event of a dispute, advice will be taken from the Index Consultative Group.

## 4 Fund Exclusion

4.1 IPD reserves the right to suspend a fund temporarily from the Full Index PDF and Digest if the fund is in breach of these rules. Funds under suspension will continue to contribute to the headline index results but will not be listed within the UK PFI products.

4.2 Continued breaches, specifically, three instances in a four quarter period, will be met with full withdrawal from the index. Reinstatement will be after three further quarters of accepted data provision. Communication of the fund's exclusion from the index will be in the form of an IPD Index Announcement.

- 4.3 Withdrawal from the index should be through written communication to both IPD and AREF and, where possible, one quarter prior to the next index release. IPD will communicate the fund's withdrawal to industry, complete with reasoning, in the Full Index PDF, Digest and via an Index Announcement.
- 4.4 Funds wishing to be re-admitted to the Index must provide IPD with the data to calculate their investment performance during the whole of the period since last published in the Index. Full historic performance will be shown in the publication as per rule 3.9a.
- 4.5 Re-admitted funds are subject to the same eligibility requirements as potential new constituents.

## 5 Governance of the Index

- 5.1 The Index is overseen by the UK Property Fund Index Consultative Group (PFICG). The role of this group is to:
  - a. Recommend and advise IPD on the development of content for the Index.
  - b. Advise on the inclusion and classification of funds within the index based on investment mandate and actual data.
  - c. Recommend and advise IPD on changes to the technical specification of the Index.
  - d. Recommend and advise IPD on changes of the rules of the Index.
  - e. Monitor the performance of IPD as the compiler and calculator of the Index to ensure appropriate high standards of quality control and timeliness are consistently maintained.
- 5.2 Membership of the PFICG will comprise representatives from AREF, IPD and independent representatives who are not a members of AREF's management board and an independent Chairperson who is also not a member of AREF's management board.
- 5.3 The PFICG is expected to meet at least twice a year.
- 5.4 IPD will keep the minutes of PFICG meetings and will circulate these minutes within two weeks of each meeting, together with the date and venue for the following meeting.
- 5.5 The UK PFICG deals with day to day issues regarding index governance and the interpretation of the rules. Strategic decisions are the responsibility of the IPD UK ICG who will also ensure that developments within IPD's direct indices are communicated to the fund indices and vice versa.
  - a. Representatives of the sponsor(s) and their member funds who are also members of the ICG will not be eligible to vote at meetings of the ICG on recommendations to IPD in respect of the UK PFI.

- b. If a matter cannot be decided upon by the PFICG or the ICG, it shall be referred to IPD for a final decision which shall be binding.

- 5.6 As with all IPD indices, the UK PFI will be subject to the scrutiny of IPD's Business Assurance Unit (BAU). Annual reviews of the data collection process will be undertaken and the results reported to BAU.
- 5.7 In order to prevent their recurring, any errors in the published Index must be reported to the PFICG at its next meeting.
- 5.8 Any proposed change to the information presented in the Index products should be subject to discussion by the PFICG before it is implemented.
- 5.9 The index rules will be reviewed on an annual basis, although adjustments will be made as and when necessary.
- 5.10 Any changes to index composition will be communicated to the users of the Index at least three months before they become effective, where possible.

## 6 Calculation Methodology

- 6.1 Total return on the NAV of the Index is calculated as the current month-end NAV minus the previous month-end NAV, plus any distributions accrued/declared for the current month ('ex-dividend' distribution), expressed as a percentage of the capital employed. If no ex-dividend distribution information is provided or estimated, the distributions included will be the actual distributions made ('as paid').
- 6.2 The capital employed is defined as the previous month-end NAV multiplied by the number of units in issue.
- 6.3 Multi period measures of performance, and the index values themselves, are time weighted and calculated by the chain-linked compounding of single monthly period percentage measures.
- 6.4 The funds included in the Index are weighted according to their NAV at the beginning of the measurement period.
- 6.5 To avoid double counting, where a constituent of the Index has an investment in another constituent, the NAV of that investment is deducted from the NAV weighting in the Index of the investee fund.

## 7 Appendix A - Product Definitions

### 7.1 Index PDF

Standard IPD two-page PDF reporting headline index results. Returns to period end reported with support spot measures. Quick reference comparator data series shown in addition to the Index profile. Available free of charge at [www.ipd.com/ukfundindex](http://www.ipd.com/ukfundindex).

### 7.2 Full Index PDF

Extension of the above product. Index medians and quartiles provided. Contributing funds performance, weighting and asset allocation listed to the period end over 3, 6, 9 and 12 months, 3, 5 and 10 years. Further detail on the calculation of index measures also provided. Available free of charge at [www.ipd.com/ukfundindex](http://www.ipd.com/ukfundindex).

### 7.3 Digest

Excel file formerly titled the 'Contributors spreadsheet'. Contains all of the above information in addition to full time series at index and fund level for total return, income return and capital growth. Historic asset allocations and Index values are also included. Made Available on the IPD client extranet and free of charge to contributing funds.

## 8 Appendix B – Calculations

### 8.1 Basic fund total return formula

The following formula describes the general fund (NAV) total return calculation for monthly fund performance – it measures the change in NAV per unit from month to month accounting for additional returns from distributions accrued and the effects of capital flows in or out of the fund.

$$TR_{\text{fund}} = \frac{NAV_{\text{per unit,t}} - NAV_{\text{per unit,t-1}} - NCI_{\text{per unit,t}} + \text{Dist'n}_{\text{per unit,t}}}{NAV_{\text{per unit,t-1}}} \times 100$$

Where:

NAV is the Net Asset Value per unit at the end of month t

NCI is the Net Capital Invested per unit in month t

D is the distribution (gross of tax and net of expenses) per unit in month t.

### 8.2 Timing-cash flows to the end of the month.

By not including any capital flows or distributions within the capital employed (denominator), the IPD fund (NAV) total return formula effectively times all cash flows from and to the fund to the end of the month. Although in the majority of cases fund managers could experience capital flows from and to the fund during a month this methodology aims to simplify data provision and allow for fund comparisons on a like-for-like basis as it excludes the impact of investor driven cash flows into the fund.

### 8.3 Open-ended and closed-ended fund total returns

All fund total return calculations are undertaken using the NAV, distribution, and net capital invested per unit. Dealing with the components of the total return on a per unit basis ensures that the performance of open-ended and closed-ended funds can be incorporated together in a uniform and consistent structure making fund comparisons fairer between structures and allowing more accurate incorporation of any corporate actions (rights issues, open offers, etc) that may otherwise dilute actual fund total returns.

In practice using total return components on a per unit basis means that open-ended and closed-ended structures are treated slightly differently within the IPD databases.

### 8.3.1 Open-ended fund total return formula

For open-ended funds the change in units from month to month reflects cash flows to and from the fund. Within the IPD fund (NAV) total return calculation it would be possible to double count capital cash flows should a change of units and NCI be incorporated into the calculation together. As a result net capital invested is not active within the total return calculation for open-ended funds. However, although not used to calculate returns for open-ended funds NCI data is required by IPD as it can be used as part of the validation process.

$$TR_{\text{open fund}} = \frac{NAV_{\text{per unit},t} - NAV_{\text{per unit},t-1} + \text{Dist'n}_{\text{per unit},t}}{NAV_{\text{per unit},t-1}} \times 100$$

### 8.3.2 Closed-ended fund total returns formula

Closed-ended funds are not structured to allow for continued changes in the size of ownership base, and are assumed to have a fixed number of units issue – in cases where closed-ended funds do not have a unitized structure IPD assumes that the fund comprises a default 1000 units. For closed-ended funds NCI is active within the total return calculation as the number of units in circulation are not expected to change from month to month and any return on investment should be adjusted for capital flows. Although closed-ended funds do not generally take new money into the fund it is usual for them to periodically draw down committed capital during the investment phase of the funds life and gradually return capital as it nears scheduled termination, the inclusion of NCI accounts for this.

$$TR_{\text{closed fund}} = \frac{NAV_{\text{per unit},t} - NAV_{\text{per unit},t-1} - NCI_{\text{per unit},t} + \text{Dist'n}_{\text{per unit},t}}{NAV_{\text{per unit},t-1}} \times 100$$

## 8.4 Monthly market total returns

In broad terms month end fund (NAV) market total returns are calculated by aggregating the return on investment (numerator) and capital employed (denominator) components of each fund's per unit total return together for all funds contributing to a universe.

In broad terms month end fund (NAV) market total returns are calculated by aggregating the return on investment (numerator) and capital employed (denominator) components of each fund's per unit total return together for all funds contributing to a universe.

Before being incorporated into an aggregate market measure each fund's per unit numerator and denominator is amplified by the number of units in existence at the start of the month, adjusted for

cross-holdings . This process is undertaken to ensure that the weight of each fund, in terms of net asset value, contributes to the overall market NAV total return.

The following steps are undertaken when calculating IPD fund (NAV) total returns for use in pooled property fund indices:

#### 8.4.1 Monthly fund total return

$$\text{MonthlyfundTR} = \frac{\text{NAV}_{\text{per unit,t}} - \text{NAV}_{\text{per unit,t-1}} - \text{NCI}_{\text{per unit,t}} + \text{Dist'n}_{\text{per unit,t}}}{\text{NAV}_{\text{per unit,t-1}}} \times 100$$

$$= \frac{\text{Return On Investment}_{\text{per unit,t}}}{\text{Fund Capital Employed}_{\text{per unit,t-1}}} \times 100$$

#### 8.4.2 Monthly market total return

$$\text{Monthlymarket TR} = \frac{\sum_{i=1}^n \text{Fund Return On Inv't}_{\text{per unit,t}} \times \text{Fund Units}_{t-1}}{\sum_{i=1}^n \text{Fund Capital Employed}_{\text{per unit,t-1}} \times \text{Fund Units}_{t-1}} \times 100$$

Where:

n is equal to the number of funds within the market sample

Fund Units is equal to the current number of units in issue by each fund in the universe minus cross-holdings

#### 8.5 Longer term fund and market total returns

Cross-holdings – it is possible for funds within the universe sample to be invested in other funds within the universe, usually undertaken to gain exposure to specialist management and sector/regional specific funds. In order to prevent double counting of fund performance in the Index the impact of this type of holding needs to be removed.

This is accomplished by reducing the contribution to the market return made by funds with units held by other funds in the universe. The reduction in weight is achieved by adjusting the number of units used to inflate the per unit numerators and denominators for individual funds in the aggregation process, by the number of units (% ownership share) identified as being held elsewhere in the universe

### 8.6 Index values

Starting from a base value of 100, each successive index value is calculated by multiplying the preceding index value by 1 plus the monthly return expressed as a decimal. Where index

$$\text{Index}_{t+1} = 100 \times \left( 1 + \frac{\text{TR}_{t+1}}{100} \right)$$

Where:

Value at time t=100,

TR<sub>t+1</sub> = total return for a single month.

### 8.7 Multi-period time-weighted total return

The basis for all of IPD's annual and quarterly performance measures is time-weighted. Annual measures are the result of compounding twelve month's figures and annual figures are shown only when twelve month's figures are available. The measure gives an equal weight to each month. To calculate quarterly and annual returns it is necessary first to construct an index from the monthly values.

The 12-month return, for example, is calculated as the percentage change in the index ( $X_t$ ) over the relevant 12 months.

$$= \left( \frac{X_{t+12}}{X_t} - 1 \right) \times 100$$

### 8.8 Annualised rate

The geometric mean of the individual annual rates of change across a series of years. It is calculated as the nth root of the final indexed score converted back into a percentage:

$$= \left( \left( \frac{X_t}{100} \right)^{1/n} - 1 \right) \times 100$$

Where:

n is the number of years

X<sub>t</sub> is the final indexed score

### 8.9 Alternative calculation of multi-period time-weighted total return

Quarterly and longer time period cumulative total returns can also be calculated by compounding monthly returns together.

$$= \prod_{t=1}^n (1 + \text{TotalReturn}_t)$$

Where:

n is equal to the number of reporting periods (months, quarters, years) under consideration

### 8.10 Alternative calculation of annualised rate

Average total returns over periods greater than 1 month can be calculated by taking the geometric mean of a series of compounded monthly total returns.

$$= \sqrt[n]{\prod_{t=1}^n (1 + TotalReturn_t)}$$

### 8.11 Net debt as a percentage of NAV

$$Net\ debt, \% NAV = \frac{GrossDebt_t - Cash_t}{NAV_t} \times 100$$

### 8.12 Gross debt as a percentage of NAV

$$Gross\ debt, \% NAV = \frac{GrossDebt_t}{NAV_t} \times 100$$

### 8.13 Gross debt as a percentage of GAV

$$Gross\ debt, \% GAV = \frac{GrossDebt_t}{GAV_t} \times 100$$

### 8.14 12 month Distribution Yield or Gross Yield

$$12 - mth\ distribution\ yield = \frac{\sum_{t=1}^{12} Distribution_t}{NAV_t} \times 100$$

### 8.15 Bid-Offer Spread Calculation

$$Bid\ offer\ spread = \frac{Offer\ price_t - Bid\ price_t}{Offer\ price_t} \times 100$$

## CONTACT US

### AMERICAS

Americas	1 888 588 4567 *
Atlanta	+ 1 404 551 3212
Boston	+ 1 617 532 0920
Chicago	+ 1 312 675 0545
Monterrey	+ 52 81 1253 4020
New York	+ 1 212 804 3901
San Francisco	+ 1 415 836 8800
Sao Paulo	+ 55 11 3706 1360
Toronto	+ 1 416 628 1007

### EUROPE, MIDDLE EAST & AFRICA

Cape Town	+ 27 21 673 0100
Frankfurt	+ 49 69 133 859 00
Geneva	+ 41 22 817 9777
London	+ 44 20 7618 2222
Milan	+ 39 02 5849 0415
Paris	0800 91 59 17 *

### ASIA PACIFIC

China North	10800 852 1032 *
China South	10800 152 1032 *
Hong Kong	+ 852 2844 9333
Mumbai	+ 91 22 6784 9160
Seoul	00798 8521 3392 *
Singapore	800 852 3749 *
Sydney	+ 61 2 9033 9333
Taipei	008 0112 7513 *
Tokyo	+ 81 3 5290 1555

\* = toll free

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