S&P Dow Jones Indices

A Division of S&P Global

IHS Markit Benchmark Administration Limited (IMBA UK) Halifax House Price Index (HHPI) Restatement Policy

September 2022

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Index Restatement Policy

IHS Markit Benchmark Administration Limited (IMBA UK or the Administrator) is the appointed Administrator of the Halifax House Price Index (HHPI). The Administrator is committed to conducting its business with integrity and to providing index information of the highest quality to its customers and index stakeholders. However, the Administrator recognizes that, in some situations, inaccuracies can arise that may warrant a restatement of one or more indices. Such inaccuracies may be caused by a range of events including:

- Incorrect mortgage transaction data provided by the contributor;
- Unavailability of up-to-date mortgage transaction data at the time of index calculation;
- Failure of exclusion criteria; or
- Index model calculation error.

The Administrator has implemented a wide range of pre-calculation checks throughout the data collection process to capture and validate exceptions which could indicate an error or data problem. These include checks on large transaction volume movements. Additional comparative and consistency checks are also in place. Any exception or warning alert is reviewed and analyzed for potential problems. In the event that exceptions are caused by an error, the HHPI index analysts will correct the error before official publication.

In the instance an inaccuracy is not caught and resolved before index calculation and publication or if input data received is revised retrospectively, the Administrator will review the impact on affected index values. In order to decide whether to restate an index, the Administrator takes multiple factors into consideration including:

- The size of the deviation between published and updated index levels;
- Dates of the restatement period, in particular:
 - o how recent the restatement period occurred; and
 - the length of the period to be restated.
- Client impact; and
- Index usage.

If the analysis indicates that a revision of the Index could be warranted, Index Administration Committee (IAC) will make a restatement determination. If the IAC decides to revise the HHPI values, the reason for the restatement together with the revised index values will be published.

In addition, the Administrator will compile an incident report to summarize the incident, the root cause and set forth remedial actions to avoid reoccurrence in the future, where such remedial actions are applicable.

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Governance and Regulatory Compliance

Index Oversight

IHS Markit Benchmark Administration Limited (IMBA UK) is the Administrator of the Halifax House Price Index (HHPI). More information about IMBA UK's governance and compliance approach can be found <u>here</u>. This document covers the following topics:

- Governance arrangements, including external committees
- Input data integrity
- Conflicts of interest management
- Market disruption and Force Majeure
- Methodology changes and cessations
- Complaints
- Errors and restatements
- Reporting of infringements and misconduct
- Methodology reviews
- Business continuity

Document Management

Policy Name:	HHPI Restatement Policy	
Policy Owner:	IAC	
Applies to:	HHPI Benchmark Family	
Approved by:	IMBA UK Board, IAC	
Date of last review:	05 July 2021	

More details about IMBA UK can be found on the Administrator's website: <u>Benchmark Administration by</u> <u>IMBA UK | IHS Markit</u>.

Further Information

Formal Complaints

Formal complaints should be emailed to *spdji_compliance@spglobal.com*.

Please note: *spdji_compliance@spglobal.com* should only be used to log formal complaints.

Disclaimer

Performance Disclosure/Back-Tested Data

Where applicable, S&P Dow Jones Indices and its index-related affiliates ("S&P DJI") defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the index is set to a fixed value for calculation purposes. The Launch Date designates the date when the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P DJI defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its data feed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations.

Information presented prior to an index's launch date is hypothetical back-tested performance, not actual performance, and is based on the index methodology in effect on the launch date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. In addition, forks have not been factored into the back-test data with respect to the S&P Cryptocurrency Indices. For the S&P Cryptocurrency Top 5 & 10 Equal Weight Indices, the custody element of the methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results.

Typically, when S&P DJI creates back-tested index data, S&P DJI uses actual historical constituent-level data (e.g., historical price, market capitalization, and corporate action data) in its calculations. As ESG investing is still in early stages of development, certain datapoints used to calculate certain ESG indices may not be available for the entire desired period of back-tested history. The same data availability issue could be true for other indices as well. In cases when actual data is not available for all relevant historical periods, S&P DJI may employ a process of using "Backward Data Assumption" (or pulling back) of ESG data for the calculation of back-tested historical performance. "Backward Data Assumption" is a process that applies the earliest actual live data point available for an index constituent company to all prior historical instances in the index performance. For example, Backward Data Assumption inherently assumes that companies currently not involved in a specific business activity (also known as "product involvement") were never involved historically and similarly also assumes that companies currently involved in a specific business activity were involved historically too. The Backward Data Assumption allows the hypothetical back-test to be extended over more historical years than would be feasible using only actual data. For more information on "Backward Data Assumption" please refer to the FAQ. The methodology and factsheets of any index that employs backward assumption in the back-tested history will explicitly state so. The methodology will include an Appendix with a table setting forth the specific data points and relevant time period for which backward projected data was used. Index returns shown

do not represent the results of actual trading of investable assets/securities. S&P DJI maintains the index and calculates the index levels and performance shown or discussed but does not manage any assets.

Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the Index or investment funds that are intended to track the performance of the Index. The imposition of these fees and charges would cause actual and back-tested performance of the securities/fund to be lower than the Index performance shown. As a simple example, if an index returned 10% on a US \$100,000 investment for a 12-month period (or US \$10,000) and an actual asset-based fee of 1.5% was imposed at the end of the period on the investment plus accrued interest (or US \$1,650), the net return would be 8.35% (or US \$8,350) for the year. Over a three-year period, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US \$5,375, and a cumulative net return of 27.2% (or US \$27,200).

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