



HFRI Institutional Hedge Fund Indices

2021

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Introduction

The HFRI Institutional Indices are a series of benchmarks designed to reflect hedge fund industry performance of the largest managers in the industry by constructing equally weighted composites of index constituents.

HFR, Inc. (HFR) is a research firm specializing in the collection, aggregation, and analysis of alternative investment information. HFR produces the HFR Hedge Fund Database, one of the industry's most widely used commercial databases of hedge fund performance, as well as a variety of other research products for the alternative investment industry, including the HFR Industry Report.

The HFR Database is currently comprised of over 6,600 investment products worldwide. Information on the hedge fund universe of established and emerging managers is collected directly from the fund managers and/or their respective administrators, while other pertinent information is pulled from offering memoranda, onsite visits, and due diligence interviews. It also directly integrates the fund managers with the HFR Database by providing them with their own website for updating their fund profile. In this manner HFR ensures current and accurate fund data that flows seamlessly from fund managers.

Definitions and Terms

For the clarity of the rebalance process we define:

- Index Manager: HFR, Inc., responsible for the calculation of the Index.
- Rebalance Date: the first business date of the calendar year.
- Evaluation Date: the month starting 3 months prior to the Rebalance Date.
- Estimated Index Values: the index will first be published on the fifth US business day of the month with a value for the prior month based on the index constituents initial reporting. An updated estimate of index values for the prior month will be published again on the 15th of the month (or nearest US business day afterwards) as additional constituent funds report their performance to HFR.
- Final Index Value: the index value for a given month will become final on the third to last US business day of the month of its initial publication, after which it will not be subject to change. For example, December performance is finalized on the third to last US business day of the following January.

Definition of Eligible Funds

A hedge fund is eligible for consideration as an Index constituent if HFR determines it satisfies all of the following evaluation criteria:

1. Have a fund vehicle open for new investment
2. Report monthly returns
3. Report Net of All Fees Returns
4. Report performance and assets in USD
5. Free from issues that affect or may affect the Fund investment terms and obligations.
6. Have at least \$500 Million USD under management (in the fund or the same strategy in other accounts)
7. It, nor its investment management company or any affiliate is under investigation by a regulatory body or other authority for reasons of wrongdoing, breach of any law, regulation or rule, or similar reason, which is deemed likely to be materially adverse to the fund by HFR.

8. Funds may be subjected to a due diligence process by HFR which may include consideration of fund registration and liquidity terms.

Index Construction

The HFRI Institutional Indices are equal-weighted indices providing a general picture of performance of the larger hedge funds in the industry.

The HFRI Institutional Indices are utilized by numerous hedge fund managers as a benchmark for their own hedge funds. Funds are classified into 4 main strategies, each with multiple substrategies, following the hedge fund strategy classification of HFR, Inc. The single-manager HFRI Institutional Index constituents represent the largest hedge funds in the hedge fund industry.

The following formula is used to define the representative Hedge Fund Strategy Universe (“Strategy Universe”) derived from the Global Hedge Fund Universe. The Global Hedge Fund Universe is expressed as:

$$HFU = \bigcup HFS$$

where HFS is the set of funds classified by strategy according to the strategy structure of the HFR Hedge Fund Database.

The funds comprising the HFS are filtered using the following formula to create the Strategy Universe.

$$\delta(freq - 12) \cdot \delta(fees) \cdot \delta(open) \cdot \delta(ISO - USD) \cdot H(AUM_{t_0-3} - AUM_{min}) \neq 0$$

where $H(x)$ is the step function defined as

$$H(x) = \begin{cases} 1 & x \geq 0 \\ 0 & x < 0 \end{cases}$$

$\delta(x)$ is the delta function defined as

$$\delta(x) = \begin{cases} 1 & x = 0 \\ 0 & x \neq 0 \end{cases}$$

and

- *freq* is the reporting frequency (12=monthly, 4=quarterly)
- *fees* is the returns net of all fees (0=yes, 1=no)
- *open* corresponds to the fund being open to new investments (0=yes, 1=no)
- *ISO* is the reporting currency
- *AUM* is the fund assets under management in USD
- *t_{0.3}* corresponds to 3 months before the rebalance date *t₀*, (i.e. the September prior to the January rebalance)
- *AUM_{min}* corresponds to the minimum AUM required for qualification (\$500 million USD)

In cases where a manager lists multiple funds with the same or similar investment profile, HFR chooses only the most representative fund for HFRI Institutional inclusion.

Annual Index Rebalance

The following rebalance methodology is applied on HFRI Institutional Hedge Fund Indices:

- The eligible universe of constituents is determined at the Evaluation Date.
- The constituents are selected based on their asset under management as of the Evaluation Date.
- Each constituent is assigned with the same weight on each Rebalance Date.
- A maximum number of constituents from each firm will be limited for optimal Index diversification purposes.
- The Index is rebalanced on an annual basis.

Additional Rebalance Considerations

- An Index constituent will be removed from the Index if it fails to meet the Evaluation Criteria on or before the Rebalance Date. In such a case, the weight of the constituent will be allocated equally to the remaining constituents of the Index or allocated to a replacement prospective constituent.
- An Index constituent will be subject for removal from the Index for due diligence concerns or failure. In such a case, upon removal, the weight of the constituent will be allocated equally to the remaining constituents of the Index or allocated to a replacement constituent.
- If an Index constituent's weight cannot be maintained between Rebalance Dates, the constituent will remain in the Index at a reduced weight, its NAV will be reallocated equally to the remaining constituents or replaced with a similar qualifying prospective constituent as available.

Index NAV Calculation

HFRI Institutional Hedge Fund Indices (the "Index" and collectively, "Indices") are total return indices and are published by HFR at www.HFR.com and on Bloomberg. Computation of the Index NAV uses actual performance of constituent funds as reported to HFR, Inc. Performance reflects constituent fund management fees, incentive fees, dividends and other distributions.

The Index NAV is 1000 at inception where " $t=0$ ". The NAV changes are driven by the Index performance, which is defined as the percentage change in the value of the Index from a previous date " $t-1$ " to current date " t ".

At rebalance time " t_0 ", constituents are equal weighted so the NAV of the HFRI Institutional Index is defined as

$$NAV_{t_0} = NAV_{t_0-1} \times (1 + ROR_{t_0})$$

where ROR_{t_0} is the percentage change in the total value of the Index from " t_0-1 " to " t_0 " computed as:

$$ROR_{t_0} = \frac{1}{n} \sum_{i=1}^n ROR_{t_0}^i - F$$

where $ROR_{t_0}^i$ is the rate of return of constituent i at time “ t_0 ”, F corresponds to an index adjustment of 6 bps/month for HFRI Institutional Indices and n is the number of constituents in the Index.

In the case of the HFRI Institutional Strategy Weighted Composite Index, the rate of return at time “ t_0 ” is given by

$$ROR_{t_0} = W_{t_0}^j \times R_{t_0}^j$$

where $R_{t_0}^j$ is the rate of return of HFRI Institutional single strategy index j at time “ t_0 ” and W_{t_0} is the weight of strategy j in the HFRI Fund Weighted Composite Index.

The NAV of the HFRI Institutional Indices at any other times “ t ” is computed as

$$NAV_t = NAV_{t-1} \times (1 + ROR_t)$$

where ROR_t is the percentage change in the total value of the Index from “ $t-1$ ” to “ t ” as follows:

$$ROR_t = \sum_{i=1}^n w_t^i \times ROR_t^i - F$$

where ROR_t^i is the total return of constituent i at time “ t ”, and F corresponds to an index adjustment of 2 bps/month for HFRI Institutional Indices. n is the number of constituents in the Index and w_t^i is the weight of constituent i at the beginning of month “ t ” computed as

$$w_t^i = \frac{(1 + R_{t-1}^i)}{\sum_{j=1}^n (1 + R_{t-1}^j)}$$

where R_{t-1}^i is the cumulative total return of constituent i between the rebalance date “ t_0 ” and time “ $t-1$ ”:

$$1 + R_{t-1}^i = \prod_{t'=t_0}^{t-1} (1 + ROR_{t'}^i).$$

If a constituent k ceases to be a constituent of the Index at given time t' before the rebalance date, its weight is then equally distributed to the remaining constituents in the Index; the new constituent weights are given by

$$w_{t'}^i = w_{t'}^i + \frac{1}{n-1} \cdot w_{t'}^k, \quad ,$$

with $i \neq k$.

Index Disruption Event

“Index Disruption Event” means:

- (1) where, in the determination of HFR, Inc., it is not possible or it is not reasonably practicable for it to determine the price or value of a constituent; or
- (2) a value for a constituent is not announced or is otherwise unavailable when such announcement or availability would normally be scheduled; or
- (3) the occurrence of an event or circumstance (including, without limitation, a major market disruption, a systems failure, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labor disruption or any similar intervening circumstance) that Hedge Fund Research Inc. determines affects the Index.
- (4) the occurrence of other event or circumstance (including, without limitation, a personnel loss, a significant client(s) redemption, an audit holdback, a side pocket implemented, redemptions suspended / Gate activated, reduced liquidity of liquidating constituent, money laundering charges, Cyber security breach / Client info leaked or stolen, Fraud, breach of any law, regulation or rule, Market specific short bans or suspensions, Major reputation hurting story or any similar intervening circumstance) that Hedge Fund Research Inc. determines affects the Index.

If, in the determination of HFR, Inc., any of the foregoing is material.

Upon the occurrence of an Index Disruption Event on any day on which the official closing level of the Index is scheduled to be published, HFR, Inc. (i) shall not calculate and publish the Index Level and/or (ii) if relevant, may make such adjustments to the provisions of the Index to account for such Index Disruption Event as it determines appropriate, including, without limitation, delaying the application of any procedures or requirements of the Index.

Accompanying Notes

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Addendum – Revisions to the Methodology

Date	Revision	Process
5/18/2020	An index adjustment term has been added to the index performance calculation. Beginning June 2020, HFR will adjust the performance of the HFRI Institutional Indices by 2bps per month.	No performance has been affected.
6/30/2020	The weight of constituents that are removed from the index will be allocated equally to the remaining constituents of the Index or allocated to a replacement prospective constituent, instead of being carried forward with zero performance until the next Index rebalance.	The change becomes effective for performance published starting on July 1 st , 2020.
6/30/2021	Updated page 7 to clarify other rebalance considerations.	No constituent or performance changes were made
6/30/2021	Starting the performance month of July 2021 the index adjustment term will change to 6 bps per month.	No historical performance has been affected.
6/30/2021	Beginning the performance month of July 2021, the period of finalization of the index value has been changed to the third to last US business day of the month it was initially published.	No constituent or historical performance changes were made