



ANDIMA Hedge Funds Index
Methodology

1 Presentation

The expressive growth of Brazilian investment funds industry in recent years, especially as from the 1990s, has favored the launching of products with different strategies, including the first multi-strategy funds constituted around 1994. However, it was only after 2004, with the consolidation of Brazil's economic stabilization process and the edition of the Brazilian Securities and Exchange Commission (CVM) Instruction n.409, that a more relevant movement to segment the industry was started. With the drop of real interests and the consequent agents' search for higher returns, thus diversifying their investments, multi-market funds, which adopt some of the major strategies of hedge funds in other countries, have grown in importance.

This process was made feasible by the opening of several companies specialized in funds management, which have joined ANDIMA as from 2004, starting to count on the support of a representative entity with more than 35 years acting in the financial industry. As a natural consequence of this adhesion, ANDIMA's Board of Directors has created its Funds Management Committee in October 2005, aiming at strengthening the discussions about sector demands and developing solutions to decrease costs. The activities of the new forum included initiatives to improve the investment funds share (units) distribution system and decrease red tape and costs of legal requirements related to the registration of investors. But the major Project analyzed by the Committee during this period was the development of IHFA - ANDIMA Hedge Funds Index, fruit of participants' demand

for the building of an indicator which could be a behavior parameter for the segment and which, for such, should be calculated by a neutral entity, the way an association shall be.

With this objective in mind, the Funds Management Committee has created a work group to define the characteristics of the index and to propose the methodology for its calculation. Afterwards, this mission was assigned to the Association's Benchmarks Commission which, after several analyses, has developed a methodology to identify multi-market funds which best represent the Brazilian hedge funds industry. It is worth mentioning that such Commission reports to the ANDIMA's Assets Pricing Committee, the attributions of which is to publicize IMA and perform studies to enhance such indicator, which in 2008 is completing three years.

In launching one more new and important parameter for the market, ANDIMA restates its mission of acting to strengthen the financial market, assuring the production and spread of technical information that contributes for its growth. Aware of the dynamism of this industry and of the lack of benchmarks for the segment, the Association is already planning to develop IHFA sub-indices to reflect the performance of major strategies used by these funds in Brazil.

2 What Is IHFA - ANDIMA Hedge Funds Index?

IHFA is a representative index of the Brazilian hedge funds industry, created to be a parameter to follow the evolution of the segment. Its value reflects in legal currency the evolution of a hypothetical application in shares (units) of a basket of funds selected by predefined and specific criteria, as described below. The index was constituted in 03/31/08 with value equal to 1000. Aiming at preserving the representative character of the indicator, its theoretical composition is regularly reviewed, according to procedures described herein.

3 Database

IHFA - ANDIMA Hedge Funds Index is calculated as from a database supplied by CVM, according to agreement entered with ANDIMA.

4 Assembly of the Theoretical Portfolio

IHFA theoretical portfolio has quarterly balancing and validity for the following periods: January to March, April to June, July to September and October to December.

The selection process of its components and the procedures for the definition of its respective theoretical quantities in the index portfolio are described below:

a. Selection of components

The selection criteria for the participants of the index theoretical portfolio follow the procedures below, restricted to the three months period (mean or end of period position, according to each criterion) previous to the rebalancing date:

- I. Among all investment funds registered in CVM and ruled by CVM Instruction n. 409, only funds belonging to the multi-market class are selected;
- II. Record of belonging the above-mentioned CVM class for more than one year as from the assembly date of each IHFA theoretical portfolio;
- III. Funds constituted as closed end funds, in which shares (units) can only be redeemed after the end of the fund duration are excluded;
- IV. Exclusive funds are excluded;
- V. Funds not charging performance fee are excluded;
- VI. Funds with mean number of share-holders less than ten in the quarter before the index rebalancing date are excluded;
- VII. Investment funds in investment funds share (units) - FIC FI - which do not have at least 95% of their net worth invested in a single investment fund (this criterion is checked through the analysis of information of the latest composition, opened by class of assets, of the funds portfolio available for consultation in CVM's site in the day of the rebalancing of the portfolio) are excluded;
- VIII. Aiming at preventing double counting of selected FIC FI of previous item, those in which the invested fund is eligible to the end of item VI are excluded. This criterion is checked through the analysis of information of the latest composition, opened by assets, of the funds portfolio available for consultation in CVM's site in the day of the rebalancing of the portfolio;
- IX. According to Anbid's classification, "balanced" and "protected capital" multi-market funds are excluded;
- X. Funds with mean net worth below the sample median value in the quarter previous to the date of index rebalancing are removed from the remaining portfolio (previous items).
- XI. Lastly, funds with annualized volatility - based on the variability of daily returns - below the sample first quartile value in the quarter previous to the date of index rebalancing are also removed from the remaining portfolio (item X).

b. Definition of theoretical quantities of quotas of index portfolio components

After selecting the funds which shall participate in the IHFA theoretical portfolio, the share each fund shall have of the theoretical portfolio in the beginning of its validity period are defined.

First, with the closing net worth of the working day before the rebalancing of the theoretical portfolio of each fund, the percentage of individual participation of each portfolio component is obtained. Then, the value of the index-number of the working day previous to the rebalancing date of the theoretical portfolio (in the first calculation period of the IHFA series, the base value of the index equals 1000 points) is multiplied by individual participation percentages observed for each fund, thus defining the new number of points each fund shall have from the index.

Then, the number of index points obtained previously by each fund is divided by its respective share value in the working day previous to the rebalancing of the theoretical portfolio, thus obtaining the theoretical quantity of shares each fund shall have during the validity period of the index portfolio.

5 Daily Index Calculation

IHFA is concatenated according to Laspeyres method (weighing the values of its components' shares by theoretical quantities of the base-period). So, variations in the composition of the theoretical portfolio do not generate impacts on index profitability.

To obtain the index result, the theoretical quantity of shares (from the base-period) from each fund is multiplied by their respective shares values (in the reference date), thus generating the number of index points for each fund. The result obtained by adding the number of index points of all components corresponds to the index-number value.

6. Information Sources

Pieces of information used to assemble theoretical portfolios and to daily calculate the index are obtained from CVM's web service. All information used is sent to CVM by funds managers as provided by CVM Instruction n. 409.

If any data captured from CVM web service related to a fund composing the index is missing, data available in the option "Consolidated Consultation of Funds" of the CVM site (www.cvm.gov.br) shall be used, in case this information has been made available to the Autarchy in the period between the elaboration of the captured file and the index calculation.

7 Events Impacting the Composition of the Index Theoretical Portfolio - Exclusion of Funds.

Although the IHFA theoretical portfolio is valid for three months, it may suffer changes in its composition along its validity period. The exclusion of some portfolio components may be caused by the following reasons:

- Termination of a fund;
- Change in some characteristic used in the portfolio components selection process - items 4.a from I to V - in a way that the fund does no longer meet some requirements;
- Not disclosing daily quota share for four consecutive days.

Necessary exclusions shall be done in the same date in which any of these events is observed. And new adjustments in the theoretical quantities of its participants are made. For such, the share belonging to the excluded fund from the index-number in the date before the revaluation of the portfolio is weighed and distributed accordingly to the others.

The changed portfolio shall be valid until the end of the original validity period or until there is a new event requiring a new adjustment.

8 Events Which Generate Interference in the Daily Index Calculation

The index shall not suffer any type of recalculation, except for those related to operational errors or human failure.

The lack of daily information on share of funds integrating the index theoretical portfolio shall be tolerated for three days, being repeated during this period the value of the latest share available for the fund. After the reestablishment of daily information flow of such funds, the index result for the days in which repeated quotas were used shall not be reviewed.

9 Publication

IHFA shall be daily published, with three working days lag.

10 Exemption of Responsibility

IHFA publication is merely informative, being optional its use by economic agents. ANDIMA is not responsible for possible damage or loss the user might incur by using the index for any target, assuming in this case the user integral and exclusive responsibility.

Apendix

1 - Calculations used to assemble the IHFA - ANDIMA Hedge Funds Index - theoretical portfolio -

1.1 - Daily returns of each fund

$$Var\%_i = \left(\left(\frac{Cota_i^{D-0}}{Cota_i^{D-1}} \right) - 1 \right) \times 100$$

Where:

- Var% i = Daily return of fund i.
- CotaD-0 i = Share of fund i in D-0.
- CotaD-1 i = Share of fund i in D-1.

1.2 - Annualized volatility of each fund

$$Vol.Anualiz_i = \sqrt{\frac{\sum (Var\%_i - \overline{Var\%_i})^2}{(n-1)}} \times \sqrt{252}$$

Where:

- Vol.Anualiz i = Annualised volatility of i
- Var% i = Daily return of fund i.
- $\overline{Var\%_i}$ = Mean of daily returns of fund i.
- n = Number of working days in the last 3 months.

1.3 - Number of index points of each fund

$$N^\circ Pontos.Índice_i = \left(\frac{PL_i}{PL_{TOTAL}} \right)^{T-1} \times NI^{T-1}$$

Where:

- N°Pontos.Índice i = Number of index points of fund i.
- PL T-1 i = Net worth of fund i in the working day previous to portfolio rebalancing.
- PL T-1 TOTAL = Total net worth in the working day previous to portfolio rebalancing.
- NI T-1 = IHFA index-number in the working day previous to portfolio rebalancing.

1.4 - Theoretical index quotas quantity for each fund

$$Quant.Teórica_i = \frac{N^\circ Pontos.Índice_i}{Cota_i^{T-1}}$$

Where:

- Quant.Teórica i = Theoretical index shares quantity of fund i.
- N°Pontos.Índice i = Number of index points of fund i.
- CotaT-1 i = Shares of fund i in the working day previous to portfolio rebalancing.

2 - Calculations used in IHFA - ANDIMA Hedge Funds Index - daily calculation

2.1 - IHFA index number

$$N^\circ ÍndiceIHFA^{D-0} = \sum Quant.Teórica_i \times Cota_i^{D-0}$$

Where:

- N°ÍndiceIHFA D-0 = IHFA Index-number in D-0.
- Quant.Teórica i = Theoretical quantity of index quotas of fund i.
- CotaD-0 i = Share of fund i in D-0.

Obs.: Index-number result shall be published with rounding of the second decimal place.

2.2 - Daily IHFA variation

$$Var\%IHFA^{D-0} = \left(\left(\frac{N^\circ ÍndiceIHFA^{D-0}}{N^\circ ÍndiceIHFA^{D-1}} \right) - 1 \right) \times 100$$

Where:

- Var%IHFA D-0 = Daily IHFA variation in D-0.
- N°ÍndiceIHFA D-0 = IHFA Index-number in D-0.
- N°ÍndiceIHFA D-1 = IHFA Index-number in D-1.



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