White Paper

Hedging

This white paper addresses the following openfunds fields:

OFST010210 Portfolio Currency Hedge – no longer supported OFST020262 Share Class NAV Hedge – no longer supported OFST010205 Has Duration Hedge OFST010410 Fund Currency OFST020540 Share Class Currency OFST010211 Currency Hedge Portfolio OFST020261 Currency Hedge Share Class

Please note, this change will require action from openfunds users to transition to the new currency hedging fields. We recommend that data providers using these fields provide both the old and new fields during a transitional period before switching fully to the new fields.

Introduction

In response to feedback from our users, we have made changes to the fields used to handle hedging, moving "OFST010210 Portfolio Currency Hedge" and "OFST020262 Share Class NAV Hedge" to No Longer Supported and introducing two new fields, "OFST010211 Currency Hedge Portfolio" and "OFST020261 Currency Hedge Share Class", with the following differences in values:

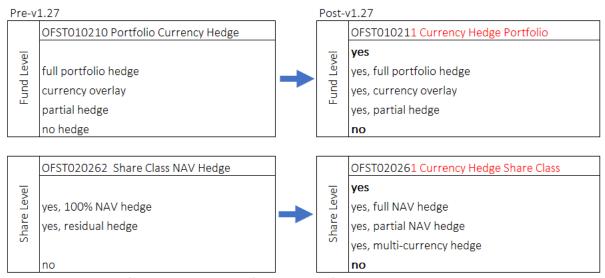


Figure 1 Comparison of the old and new openfunds hedging fields

These translate as shown in the above figure:

• "OFST010210 Portfolio Currency Hedge" – all values directly translate to "OFST010211 Currency Hedge Portfolio". "yes" is only available in the new field and has no translation back to the old field.

- "OFST020262 Share Class NAV Hedge" "yes, 100% NAV Hedge" and "no" directly translate to values in "OFST020261 Currency Hedge Share Class". "yes, residual hedge" is a subset of "yes partial NAV hedge" so can be translated to that value. "yes" and "yes, multi-currency hedge" are only available in the new field and has no translation back to the old field.
- Thus, the new fields are not fully backward compatible, the following values would translate to **blank** values in the old fields:
 - o "OFST010211 Currency Hedge Portfolio" "yes"
 - o "OFST020261 Currency Hedge Share Class" "yes" and "yes, multi-currency hedge"

This change was made to effect the following results:

- Allow an option for multi-currency hedging at share class level. This methodology is commonly used by ETFs and was not possible to show using the previous openfunds hedging fields;
- Allow an option for partial hedging on share class level (including residual hedge, which was one
 of the values of the old "OFST020262 Share Class NAV Hedge" field);
- Allow options for either level 1 ("yes"/"no", shown in bold in Figure 1) or level 2 (detailed answers, non-bold values in Figure 1) values in the hedging fields, in case the more granular level 2 data is not available;
- Make the structure of the two fields more consistent with each other.

Hedging Methods

Today, funds implement a wide range of hedging techniques. For equity investments, these techniques are used to eliminate the price risks for specific stocks, stock markets or sectors. For interest bearing assets, it is the risk of interest rate change in particular that is mitigated through hedging techniques. The most common application of hedging in modern fund management, however, is to protect against currency exchange rate fluctuations.

The openfunds standard takes into account funds that implement hedging against **interest rate changes** as well as **currency risks**. The implementation of both types of hedging in openfunds is explained below.

Duration Hedge

For interest rate hedging, openfunds currently provides the Boolean field "OFST010205 Has Duration Hedge". A "yes" should be entered in this field if interest rate hedging is applied, even if only occasionally. If the investment guidelines provide the possibility of hedging the risk of interest rate changes, but actual implementation is very unlikely, then this field should be filled out with "no".

Currency hedging methods

Currency hedging can take place at the share class level or fund level (portfolio level).

Fund level hedging

Hedging at the fund level means the currency of all investments that are not made in the fund's base currency (as specified by "OFST010410 Fund Currency") are hedged. In this way the value of the fund in its base currency is protected from currency fluctuations. A fund is considered hedged when more or less all investment currencies contained with the fund are hedged. If a minimum of 90% of the foreign currencies in the fund are permanently hedged, openfunds considers it a "full portfolio hedge". If, on the other hand, less than 90% of the foreign currencies are hedged, either on a permanent or temporary basis, openfunds considers it as a "partial hedge". Occasionally currency management of a fund is made

independently of the investment currencies of the fund. This is defined by openfunds as "currency overlay". Hedging at the fund level is typically done by the portfolio manager.

<u>Implementation in openfunds:</u>

The openfunds field "OFST010211 Currency Hedge Portfolio" allows the following options:

- "yes"
- "yes, full portfolio hedge"
- "yes, partial hedge"
- "yes, currency overlay"
- "no"

Share class level hedging

At the share class level, openfunds differentiates between a full NAV hedge and a residual hedge.

Full NAV hedge:

Full hedging at the share class level is the standard case of currency hedging. For example, consider a European equity fund nominated in Euro that decides to launch a US-dollar based share class that mirrors the price development of the Euro share class. Protection against exchange rate fluctuation is achieved by applying a EUR/USD forward hedge on the new share class.

It therefore doesn't matter how many foreign currency shares a fund has invested in. What matters for the hedge is solely the amount of money, in this example US dollars, that has flowed into the hedged share class.

The result of the hedge is easily seen when viewing the performance of the Euro- and USD- share classes in a chart; the price development of both share classes is virtually parallel. In the case of a perfectly executed hedge, the two charts should only differ by the swap rate, or interest rate differential between the two currencies.

Partial NAV Hedge

Partial hedging is similar to the above case, but the currency hedge is not intended to be a full hedge. The purpose of the hedge is to partially hedge the currency risk, but not fully remove exposure to the currency being hedged against.

Residual hedging is a special case of partial NAV hedging and as such is not treated as a separate value in the new field structure. It functions differently than a full hedge in that it takes into account the different currencies that the fund has invested in. Suppose, for example, that a European Stock Fund consisted 80% of European shares and 20% UK shares. In the case of a full NAV hedge in pound sterling, the fund would have a Euro currency exposure of -20% and a pound sterling currency exposure of 120%. Since such excessive security is not always required, some fund managers prefer a residual hedge. This means they would only take out a pound sterling hedge on 80% of the fund volume. This type of hedging would fall under the "yes, partial NAV hedge" value for "OFST020261 Currency Hedge Share Class".

Multi-currency Hedge

For mutual funds it is not uncommon to have a two-step approach to hedging. First to hedge at the portfolio level and then perform additional hedges at the share class level. This would lead to values in our fields of e.g. "OFST010211 Currency Hedge Portfolio" = "yes, full portfolio hedge" and "OFST020261 Currency Hedge Share Class" = "yes, full NAV hedge".

With multi-currency hedging, however, hedging is not performed at portfolio level ("OFST010211 Currency Hedge Portfolio" = "no") and each hedged share class will have a different set of currency hedges.

Implementation in openfunds:

The openfunds field "OFST020261 Currency Hedge Share Class" allows the following options:

English

- "yes"
- "yes, full NAV hedge"
- "yes, partial NAV hedge"
- "yes, multi-currency hedge"
- "no"

Language:

Document Information

Title: Hedging

Confidentiality: Public

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Revision History

Version	Date	Status	Notice
2.1	2021-06-18	Draft	Corrections and updates
2.0	2021-05-25	Draft	Update including field changes for v1.27
1.0	2018-11-16	Final	Original published version

Implementation

If you have any questions about the new data type or difficulties with implementation, please contact us at businessoffice@openfunds.org.

Joining openfunds

If your firm has a need to reliably send or receive fund data, you are more than welcome to use the openfunds fields and definitions free-of-charge. Interested parties can contact the openfunds association by sending an email to: businessoffice@openfunds.org

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