
Representative Cost

Data Content Guide

Morningstar Data Content

31 March 2023

Data Content Details

Version: 1.5

Change of European market rules

Last Reviewed: 31 March 2023

Background

The costs charged for an investment is one of the biggest predictors of future outperformance. Given the differences in the way fees are calculated, reported, and named across different markets, it is difficult to ensure like-for-like comparisons.

Morningstar is introducing “representative cost” fields that will contain the best information on the recurring costs that are charged via the fund itself, and so would not include one-off costs or costs charged by third parties such as advisors or platforms, nor one-off costs charged on entry or exit.

The fields will be a monthly time-series of those fees charged; one series will exclude any transaction costs, and the other will include transaction costs. The fees will be available as both annualized and unannualized series.

Definition of the Dataset

An indication of the known reoccurring costs for the share class as levied by the management group, excluding transactions costs incurred by the fund in trading its holdings. This measure does not include one-off costs or costs levied by third parties such as investment advisors or platforms. This data is available in multiple versions, based on the inclusion/exclusion of transaction cost, as well as annualized/unannualized versions.

Content

The representative cost calculation is different across markets, depending on the nature of the available fees and market features but there will be common themes.

Annual fee levels will be deannualized to a monthly level by raising to the power of (1/12) so

$$(1) \text{ Monthly fee} = \text{annual fee}^{1/12}$$

Where the fees are expressed in decimal format (5% would be represented as 1.05).

Fees can only be rolled forward or back up to (and including) 12 months after the month in which they were reported. The exception to this is for the latest reported value that may be rolled forward up to 18 months depending on the market region.

For markets that report both actual and estimated (forward-looking) fees, the actual values are preferred for periods prior to the last reported fee date, and estimated values are preferred for periods after the last reported fee.

General Market Rule

For markets that do not have special rules, the net expense ratio (this can be from the annual report, semiannual report, or other source) will be used to calculate the representative cost excluding the transaction cost field only. This will be calculated by:

- ▶ Taking the net expense ratio values for the share class, and placing those values on the reported date (if the reported date is midmonth, then place on the month-end);
- ▶ Filling in the missing monthly points by rolling back the values up to 12 months (or until the previous reported value) first;
- ▶ After rolling back, missing month ends may be filled by rolling the values forward up to 12 months;
- ▶ The latest value may be rolled forward up to 15 months (to allow for publishing and collection of the next annual report).

Note for the U.S. market, the representative cost series will not include acquired expenses from other funds it may invest in.

Inputs/Sources/Timings

Calculation frequency: monthly, updating each month-end. Historical values are recalculated in case of updates of data sources.

Sources: The following table summarizes the data sources adopted from each market:

General rule

- ▶ Net Expense Ratio
- ▶ Transaction Cost

Australian Market

- ▶ Perspective Morningstar Total Cost Ratio
- ▶ Realized Morningstar Total Cost Ratio
- ▶ Indirect Cost Ratio
- ▶ Management Expense Ratio
- ▶ Transaction and Operating Cost Including Recovered Costs

Canadian Market

- ▶ Manager Expense Ratio (from annual report, semiannual report, or other source)
- ▶ Trading Expense

European Market

- ▶ Ongoing Cost Other Cost (from PRIIPS KID),
- ▶ Ongoing Cost Estimated (from EMT)
- ▶ Ongoing Cost Actual (from EMT, annual report)
- ▶ Ongoing Charge (from KIID)
- ▶ Ongoing Cost Transaction Cost (from PRIIPS KID)
- ▶ Transaction Cost (from EMT, annual report),
- ▶ Incidental Costs Performance Fee (from PRIIPS KID)
- ▶ Incidental Costs Carried Interest (from PRIIPS KID)
- ▶ Performance Fee (from EMT, annual report)
- ▶ Net Expense Ratio (from annual report)

Hong Kong Market

- ▶ Ongoing Charge
- ▶ Performance Fee

Japanese Market

- ▶ Aftertax Total Expense Ratio
- ▶ Net Expense Ratio

New Zealand Market

- ▶ Realized Morningstar Total Cost Ratio

United States Open-End and Exchange-Traded Funds

- ▶ Net Expense Ratio
- ▶ Annual Report Adjusted Operating Expense Ratio

Limitations/Exceptions

Representative cost calculation is subject to cost information availability for each market of reference; in absence of cost information, representative cost is not calculated. The adoption of hunt back or forward rules in logic design allows for representative cost information availability prior and after the latest cost information available for the share class for a variable period depending on the market's logic of reference.

Derivation Logic by Market

Australian Market

The ASIC Regulatory Guide 97 (RG97) fee disclosure regime in Australia was revised in November 2019, and Morningstar introduced the Morningstar total cost ratio in late 2020.

The Morningstar total cost ratio represents the total nondiscretionary costs of holding a fund and uses the most relevant data available at each period. From late 2020, it is calculated using ASIC Regulatory Guide

97 Standards. It is also backfilled to encompass the disclosures made under legacy regimes, total management costs, indirect cost ratio, and management expense ratio.

There are two Morningstar total cost ratio time-series: prospective TCR representing the forward-looking fees and the realized TCR representing the actual fees charged during the year. Both time-series are backfilled using the same history pre-RG97 with ICRs and MERs with a descending hierarchy in the TCR methodology document.

When constructing the representative cost:

If the month in question is after the last fee data reported for that share class, then we will use the data in the following order where available:

- ▶ If the date is up to 15 months after the prospective TCR value, use that data;
- ▶ If the date is up to 15 months after the realized TCR value, use that data;
- ▶ If none of the above apply, then value is blank/null for that month.

If the month in question is on or before the last fee date was reported for that share class, we will use the data in the following order where available. If there is:

- ▶ Realized TCR value within the next 12 months of that date, roll back that data;
- ▶ Prospective TCR value up to 15 months prior, roll forward that data;
- ▶ Prospective TCR value within the next 12 months of that date, roll back that data;
- ▶ Realized TCR value up to 12 months prior, roll forward that data;
- ▶ Otherwise, no value should be calculated for that month-end.

In the above scenario, in the unlikely event of prospective or realized TCR not being available—the series will look back to stored indirect cost ratio or, if that is not available, the management expense ratio—from previous collection regimes.

When constructing the transaction cost time-series, the total transaction and operating costs including recovered costs, or T&O, is added to the relevant representative cost as described above.

If the month in question is after the last fee data was reported, then:

- ▶ The latest T&O value may be rolled forward up to 15 months.

If the month in question is on or before the last fee date was reported, then:

- ▶ Use the T&O value within the next 12 months.

Note: T&O is likely to only be available from 2017 onward.

Canadian Market

As the Canadian market publishes transaction cost information, both the including and excluding transaction cost fields will be calculated.

The excluding transaction cost time-series will be calculated by using the manager expense ratio (from the annual report, semiannual report, or other source). This will be calculated by:

- ▶ Taking the manager expense ratio values for the share class, and placing those values on the reported date (if the reported date is midmonth, then place on the month-end);
- ▶ Filling in the missing monthly points by rolling back the values up to 12 months (or until the previous reported value) first;
- ▶ After rolling back, missing month ends may be filled by rolling the values forward up to 12 months;
- ▶ The latest value may be rolled forward up to 15 months (to allow for publishing and collection of the next annual report).

The including transaction cost time-series will be calculated using the manager expense ratio and the trading expense.

- ▶ Taking the manager expense ratio and trading expense values for the share class, and placing those values on the reported date (if the reported date is midmonth, then place on the month-end);
- ▶ Filling in the missing monthly points by rolling back the values up to 12 months (or until the previous reported value) first;
- ▶ After rolling back, missing month ends may be filled by rolling the values forward up to 12 months;
- ▶ The latest value may be rolled forward up to 15 months (to allow for publishing and collection of the next annual report);
- ▶ For months with both a manager expense ratio and a trading expense, add them together to obtain the month's representative cost;
- ▶ If a month does not have both a manager expense ratio and a trading expense, a representative cost will not be displayed.

European Market

As the European market publishes transaction cost information, both the including and excluding transaction cost fields will be calculated.

The fee disclosure regime in Europe changed in 2010 with the introduction of the key investor information document, or KIID, and again in 2018 with the introduction of MiFID II rules. The excluding transaction cost field will blend these regimes into one time-series, the relevant fees are:

PRIIPS KID Costs—Sum Ongoing Cost Other Cost, Incidental Costs Performance Fee, and Incidental Costs Carried Interest from PRIIPs KID as data source. If performance fee and carried interest are blank, then use the hunt back rules for other documents (Mifid ex post data from EMT, Mifid ex ante data from EMT, annual report) in order of priority within the previous/next 12 months.

MiFID Ex-Ante Costs—Sum the Ongoing Cost Estimated and Performance Fee Estimated fields from EMT as data source

MiFID Ex-Post Costs—Sum the Ongoing Cost Actual and Performance Fee Actual fields from EMT as data source

Annual Report Ongoing Charge Plus Performance Fee—Sum the annual report ongoing charge and annual report performance fee

KIID Ongoing Charge Plus Performance Fee—Sum the KIID ongoing charge and annual report performance fee (if within six months of the KIID date)

Net expense ratio—Use the net expense ratio

If month in question is after the last fee data was reported for that share class then:

- ▶ If date is up to 18 months after the Prips KID data, use that data
- ▶ If date is up to 18 months after the MiFID ex-ante costs, roll this value forward;
- ▶ If not and date is up to 18 months after a MiFID ex-post cost, roll this value forward;
- ▶ If not and date is up to 18 months after the annual report ongoing charge plus performance fee data, roll this value forward;
- ▶ If not and date is up to 18 months after the KIID ongoing charge plus performance fee, roll this data forward;
- ▶ If not and date is up to 18 months after the net expense ratio, roll this value forward.

If month in question is on or before the last fee date was reported for that share class

- ▶ If there is a MiFID ex-post within the next 12 months, roll this data back;
- ▶ If not and there is MiFID ex ante data in the prior 12 months, roll forward that data;
- ▶ If there is any Prips KID data within the next 12 months of that date, roll back that data (take any value within a month as on the month-end)
- ▶ If not and there is AR ongoing charge plus performance fee within the next 12 months, roll back that data;
- ▶ If not and there is KIID ongoing charge plus performance fee within the next 12 months, roll back that data;
- ▶ If not and there is AR net expense ratio within the next 12 months, roll back that data;
- ▶ If not and there is MiFID ex ante data within the next 12 months, roll back that data;
- ▶ If there is MiFID ex post data up to 12 months prior, roll forward that data;
- ▶ If there is KIID ongoing charge plus performance fee up to 12 months prior, roll forward that data;
- ▶ If there is annual report ongoing charge plus performance fee up to 12 months prior, roll forward that data;
- ▶ If there is AR net expense ratio up to 12 months prior, roll forward that data;

Otherwise, no value should be calculated for that month-end.

To calculate the including transaction cost time-series the following information would be used:

PRIIPS KID costs—Sum Ongoing Cost Other Cost, Incidental Costs Performance Fee and Incidental Costs Carried interest. If Performance fee and carried interest is blank, then use the hunt back rules for other

documents (Mifid ex post, Mifid ex ante, Annual report) in order of priority within the previous/next 12 months.

MiFID ex-ante costs - Sum the Ongoing cost estimated, performance fee estimated and transaction fee estimated fields. Note any negative transaction fees will be excluded from the calculation.

MiFID ex post cost - Sum the Ongoing cost actual, performance fee actual and transaction fee actual fields. Note any negative transaction fees will be excluded from the calculation.

If month in question is after the last fee data was reported for that share class

- ▶ If date is up to 18 months after the Prips KID data, use that data
- ▶ If date is up to 18 months after the MiFID ex-ante costs, roll this value forward;
- ▶ If not and date is up to 18 months after a MiFID ex-post cost, roll this value forward.

If month in question is on or before the last fee date was reported for that share class

- ▶ If there is a MiFID ex-post within the next 12 months, roll this data back;
- ▶ If not and there is MiFID ex ante data in the prior 12 months, roll forward that data;
- ▶ If there is any Prips KID data within the next 12 months of that date, roll back that data (take any value within a month as on the month-end)

If none of the above apply:

- ▶ If not and there is MiFID ex ante data within the next 12 months prior, roll back that data;
- ▶ If there is MiFID ex post data up to 12 months prior, roll forward that data;

Otherwise, no value should be calculated for that month-end.

Hong Kong Market

The Hong Kong market does not publish transaction cost information so only the excluding transaction cost field will be calculated. For all funds (except for the HK MPF funds that will use the general market rule) the excluding transaction cost time-series will be calculated by using the ongoing charge including performance fee and ongoing charge excluding performance fee. This will be calculated by:

- ▶ Taking the ongoing charge including performance fee values for the share class, and placing those values on the reported date (if the reported date is mid-month, then place on the month-end).
- ▶ Filling in the missing monthly points by rolling back the values up to 12 months (or until the previous reported value) first.
- ▶ After rolling back, missing month ends may be filled by rolling the values forward up to 12 months.
- ▶ The latest value may be rolled forward up to 15 months (to allow for publishing and collection of the next annual report).
- ▶ Any missing month-end periods will then be populated by taking the ongoing charge excluding performance fee for the date (the values may be rolled up to 12 months forward or backward, apart from the latest value that may be rolled forward up to 15 months)

Japanese Market

The Japanese market does not publish transaction cost information so only the excluding transaction cost field will be calculated. The funds will calculate representative cost using the general methodology, except in cases where the fund has no annual report net expense ratio. Where that is the case a representative cost will be created for the last month-end only that is equal to the JP after tax total expense ratio.

New Zealand Market

The New Zealand market does not publish transaction cost information so only the excluding transaction cost field will be calculated. The excluding transaction cost time-series will be calculated by using the Realised TCR. This will be calculated by:

- ▶ Taking the Realised TCR for the share class, and placing those values on the reported date (if the reported date is mid-month then place on the month-end).
- ▶ Filling in the missing monthly points by rolling back the values up to 12 months (or until the previous reported value) first.
- ▶ After rolling back, missing month-end may be filled by rolling the values forward up to 12 months.
- ▶ The latest value may be rolled forward up to 15 months (to allow for publishing and collection of the next annual report).

U.S. Open-End Funds and ETFs

Open-end funds and ETFs in the United States will use the methodology below (all other fund types in the U.S. will use the General market rule). Only the representative cost excluding transaction fee will be calculated.

- ▶ Taking the annual report adjusted operating expense ratio values for the share class, and placing those values on the reported date (if the reported date is mid-month then place on the month-end).
- ▶ Filling in the missing monthly points by rolling back the values up to 12 months (or until the previous reported value) first.
- ▶ After rolling back, missing month ends may be filled by rolling the values forward up to 12 months.
- ▶ The latest value may be rolled forward up to 15 months (to allow for publishing and collection of the next annual report).
- ▶ Any missing month-end periods will then be populated by taking the applicable annual report net expense ratios for the date (the values may be rolled up to 12 months forward or backward, apart from the latest value that may be rolled forward up to 15 months)

Note for the US market, the representative cost series will not include acquired expenses from other funds it may invest in.

Universes

All fund within the combined open-end funds, exchange-traded funds, closed-end funds, money market funds, insurance, and pension funds.

Data Content History

Version 1.5	31 march 2023	Change of European market rules
Version 1.4	31 March 2021	Clarification of Australian and New Zealand rules
Version 1.3	30 September 2020	Change of Australian and New Zealand rules
Version 1.2	30 November 2019	Addition of Hong Kong and Japan rules
Version 1.1	31 October 2019	Changed U.S. OE to use Adjusted expense ratio (from NER)
Version 1.0	31 August 2018	Original publication

Glossary

<i>Annualization</i>	<i>A calculation aiming at converting or adjusting a calculated statistic or a rate on a full year basis, helping to facilitate comparison across investments on a common time base.</i>
<i>Net Expense Ratio</i>	<i>The percentage of fund assets used to pay for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV. Sales charges are not included in the expense ratio. The expense ratio for fund of funds only includes the wrap or sponsor fees, and does not include the underlying fund fees.</i>
<i>Transaction Cost or Fee</i>	<i>The fee incurred in the trading of the fund's assets.</i>
<i>Perspective Total Cost ratio</i>	<i>The Morningstar Total Cost Ratio (TCR) is a figure encompassing the total non-discretionary fees and costs, we will refer to throughout as "fees", associated with managing and administering collective investment products in Australia or New Zealand. The Prospective TCR is best applied for assessing the fees that investors are likely to be charged. The TCR includes management or investment fees, performance fees, administration fees and any other fees for underlying funds or similarly outsourced fee arrangements.</i>
<i>Realised Total Cost ratio</i>	<i>The Morningstar Total Cost Ratio (TCR) is a figure encompassing the total non-discretionary fees and costs, we will refer to throughout as "fees", associated with managing and administering collective investment products in Australia or New Zealand. The Realised TCR is best applied to research the historical experience of investors in the fund. . The TCR includes management or investment fees, performance fees, administration fees and any other fees for underlying funds or similarly outsourced fee arrangements.</i>
<i>Indirect Cost ratio</i>	<i>The total asset based fees charged by the fund, including indirect costs.</i>
<i>Management Expense ratio</i>	<i>The percentage of a fund's average net assets paid out each year to cover the fixed costs of managing the fund as stated in the fund's Annual Report and Semi-annual Report. The Management Expense Ratio (MER) is specific to the Canadian market.</i>
<i>Transaction and Operating (T&O) cost including recovered costs</i>	<i>The sum of Gross Total Transactional & Operational Costs after deducting the Total Transactional & Operational Recovered Costs.</i>
<i>Trading expense</i>	<i>The amount charged to the fund for costs incurred in buying and selling the underlying assets of a fund.</i>

<i>Ongoing Cost Other Cost (from PRIIPS KID)</i>	<i>An indication of the cost for the buying and selling of underlying investments in the investment product, collected from the regulatory Key Investment Document (KID) for European Packaged retail investment and insurance products (PRIIPs).</i>
<i>Ongoing cost estimated (from EMT)</i>	<i>The amount that may be charged by the fund for re-occurring fees during the fiscal year. The ongoing charge will include adviser, administration, custodian, legal and any other fees that will typically not vary from year to year. It will not include any performance fees of transaction costs. The data is reported as a percentage of average net assets.</i>
<i>Ongoing cost actual (from EMT, Annual Report or other sources)</i>	<i>The amount actually charged to the fund for re-occurring fees during the last fiscal year. The ongoing charge includes adviser, administration, custodian, legal and any other fees that will typically not vary from year to year. It will not include any performance fees of transaction costs. The data is reported as a percentage of average net assets.</i>
<i>Ongoing charge (from KIID)</i>	<i>The Ongoing Charge is calculated as the ratio of the total ongoing charges to the average net asset value. Ongoing charges are all payments deducted from the assets of a UCITS during a period, except for payments that are explicitly excluded.</i>
<i>Ongoing Cost Transaction Cost (from PRIIPS KID)</i>	<i>An indication of the cost for the buying and selling of underlying investments in the investment product, collected from the regulatory Key Investment Document (KID) for European Packaged retail investment and insurance products (PRIIPs).</i>
<i>Transaction Cost estimated (from EMT)</i>	<i>The estimated charge for the fund that may be incurred as result of the acquisition and disposal of investments. The charge is forward looking and used for pre-sale reporting.</i>
<i>Transaction Cost actual (from EMT, Annual Report or other sources)</i>	<i>The fee paid by the fund due to the acquisition and disposal of investments.</i>
<i>Incidental Costs Performance Fee (from PRIIPS KID)</i>	<i>An indication of any performance fees taken from the investment if the investment product outperforms its benchmark, collected from the regulatory Key Investment Document (KID) for European Packaged retail investment and insurance products (PRIIPs).</i>
<i>Incidental Costs Carried interest (from PRIIPS KID)</i>	<i>An indication of the cost for carried interest, collected from the regulatory Key Investment Document (KID) for European Packaged retail investment and insurance products (PRIIPs).</i>
<i>Performance fee estimated (from EMT)</i>	<i>A fee that may be charged if the fund exceeds certain performance targets in a set period of time. The fee is forward looking and used for pre-sale reporting.</i>

<i>Performance fee actual (from EMT, Annual Report or other sources)</i>	<i>A payment awarded to a fund manager if certain performance targets are attained during the prior fiscal year. The performance target may be static or relative to a benchmark.</i>
<i>After Tax Total Expense Ratio</i>	<i>A kind of after-tax fee ratio including total trust fee (management fee + distribution fee + custodian fee) and underlying fees from underlying funds for only Japanese market. For some funds it is not directly disclosed in prospectus, we have to calculate the after-tax ratio based on before-tax ratio</i>

Frequently Asked Questions

Why does a share class not have representative cost?

Representative cost is not calculated for share classes that do not report cost information adopted in the region of calculation.

Why does a share class not have an up to date representative cost?

Representative cost is not calculated for share classes whose cost information is out dated for a period that exceeds the number of months that the cost information is rolled forward or backward in the calculation.