REGIONAL INVESTMENT PERFORMANCE SUBCOMMITTEE
FOR EUROPE, MIDDLE EAST AND AFRICA
(RIPS EMEA)

former European Investment Performance Committee (EIPC)

GUIDANCES included in this document:

- Guidance for Recipients of Investment Reporting (RIPS EMEA, 2006)
- Guidance on Performance Attribution Presentation (EIPC, 2004)
- Guidance for Users of Attribution Analysis (EIPC, 2002)
GIPS COUNCIL
REGIONAL INVESTMENT PERFORMANCE SUBCOMMITTEE
FOR EUROPE, MIDDLE EAST AND AFRICA (RIPS EMEA)

Guidance for
Recipients of Investment Reporting
Chapter 1 – Introduction

Reporting for investment management clients is not only a part of a routine service delivery, but also an instrument of the dialogue between investment managers and their clients.

Like any other information source, client reporting provides meaningful information to the user only to the extent the user understands the assumptions and concepts underlying this presentation. That’s why it is crucially important that the presentation of investment reporting is provided in a way that does not mislead the users and contains all necessary details to explain the underlying assumptions and concepts.

In view of the above, the Regional Investment Performance Subcommittee for Europe, Middle East and Africa (RIPS EMEA) of the GIPS Council (formerly the European Investment Performance Committee, EIPC) has decided to take the initiative to address the needs of investment management clients for transparent and comprehensive information and to issue a specific guidance with respect to presentation of investment reporting. The Guidance for Recipients of Investment Reporting pursues the following objectives:

- To expand the philosophy of ethics and transparency into the area of reporting for investment management clients.
- To create a questionnaire for investors and investment management clients to draw their attention to important aspects of investment reporting and to provide a list of possible questions to ask their investment managers regarding the reporting.
- To contribute to improvement of quality of investment reporting in general by increasing investors awareness.

Therefore, this Guidance is primarily regarded as an educational paper for investors and does not attempt to present any prescriptive provisions for investment managers. On the other hand, investment managers may find this Guidance a useful source for structuring their investment reporting.

The Guidance applies to investment reporting for existing investment management clients only. Reporting for prospective clients is addressed within the scope of the Global Investment Performance Standards (GIPS).

For the purposes of this Guidance, the term “client investment reporting” has a broader meaning and includes reporting in a durable medium but also oral and other forms of communication to clients.

RIPS EMEA regards it a responsibility of recipients of investment management reporting to duly inform themselves about basic investment management concepts and to ask relevant questions to properly understand the reporting. Not doing this may lead to misinterpretations and misjudgment of the substance and contents of the reporting. It is also recommended that investors study the RIPS EMEA guidance papers previously issued on various performance and reporting matters (refer to Chapter “Related documents” for a list of the recommended materials).

The Guidance was approved by RIPS EMEA on June 22, 2006. RIPS EMEA proposes that this Guidance be adopted by the GIPS Council and GIPS Executive Committee as an educational paper for investment management clients.
Chapter 2 – Components of client reporting

The purpose of the following definitions is to provide users with an overview and elaborations on typical components of the investment management reporting clients may expect to receive. This overview is just an indication and is not deemed to be exhaustive. It should be also taken into account that some of those components may not always be included in the standard reporting package but rather may have to be requested additionally.

**Portfolio information:** This part of the reporting includes the general portfolio standing data, such as client name and portfolio identification, mandate type, reference currency, investment strategy and the portfolio benchmark, etc.

**Portfolio structure:** This report may include the following information:

- Portfolio asset allocation, which is a breakdown/overview of the portfolio assets by various criteria, e.g. by asset class, country, currency, industry sector, maturity, derivative type, manager, sub-advisor, etc. This may be provided as of the reporting date as well as a dynamic analysis for a particular period.
- The largest portfolio positions and their share in the total portfolio.
- Asset-liability analysis, etc.

**Performance report:** This report provides a summary of the portfolio and the benchmark performance achieved over the reporting period, and may include single period, cumulated and average returns, etc.

**Return and risk analysis:** This report may include the following components:

- Return analysis for the portfolio and benchmark by various factors, e.g. by asset class, country, industry sector, maturity profile, manager, sub-advisor, etc.
- Return contribution and attribution analysis
- Ex-post and ex-ante analysis of portfolio risk measures, e.g. volatility, tracking error, risk-adjusted performance measures, value-at-risk, etc.

**Portfolio valuation statement:** This report provides a total portfolio valuation as of a specific date with a breakdown of the assets by individual securities and investment instruments.

**Profit and loss statement:** This report provides an analysis of gains and losses generated during the reporting period. This report may also show an analysis of costs of asset management, e.g. total expense ratio, breakdown of transaction costs and fees, etc. The degree of detail may vary.

**Transactions report:** This report shows all transactions (purchases and sales of securities) carried out during the reporting period on a trade date basis.

**Cash and capital flow report:** This report shows cash flows into/out of the portfolio during the reporting period. Cash flows typically include capital contributions and withdrawals by client (both as cash and securities), dividend and interest income payments, fee charges, etc.
**Investment compliance report:** This report may include the following information:

- Analysis of compliance with the statutory legal requirements applicable for a particular client, such as legal investment exposure limits.
- Analysis of compliance with the client’s investment guidelines, such as investment restrictions, asset allocation ranges, asset-liability parameters, tracking error targets, etc.

**Composite report:** GIPS compliant composite report the portfolio belongs to.

**Descriptive information:** This report may include the following information:

- Qualitative information on the investment process
- Information on the market developments, such as interest rate and currency exchange movements, general macro-economic situation, etc.
- Qualitative information about the portfolio risk-return profile.
- Various disclosures and disclaimers.
Chapter 3 – Guiding principles

Clients should expect their investment managers to adhere to the industry ethical principles and standards, such as the Asset Manager Code of Conduct of CFA Institute, Global Investment Performance Standards (GIPS), EFAMA Code of Good Conduct on the Presentation of Performance, etc.

Investment reporting for individual clients is subject to the following guiding principles:

- Reporting philosophy should be identifiable and transparent. For example, presentation of performance as a part of the client reporting should clearly state if a client return perspective or a portfolio manager return perspective is applied.
- Reporting should take into account the type of client. Institutional clients may have other reporting needs than private retail clients.
- Reporting should present a true and fair picture of the client assets and performance and contain all necessary details relevant to the client.
- Reporting should be timely and accurate.
- Reporting should take into consideration the applicable legal requirements.

Chapter 4 – Questionnaire

Clients may consider it useful to ask their investment managers the following questions to understand their investment management reporting. This list is not considered to be exhaustive. On the other hand, some questions may not always be applicable depending on the situation.

1. Investment process and portfolio strategy

1.1. Describe the main elements of the investment management process, including the key investment decision factors employed. Disclose any significant recent changes to the investment management process.

Investment management clients usually do not prescribe all details of their portfolios’ management but rather define the strategic objectives. The tactical implementation of the investment strategy is the task of the manager and the clients should be informed on the active management decisions being taken by their manager.

1.2. Disclose the composition of the benchmark and the benchmark rebalancing rules.

Investment management clients may not always define by themselves the benchmark their portfolio will be measured against. If the investment manager defines the portfolio benchmark, the clients should be informed on the main benchmark features which will help them to assess if the selected benchmark is appropriate for the portfolio. Typical benchmarks are represented by market indices or compositions thereof and model portfolios.

1.3. Disclose investments outside of the scope of the benchmark.

For actively managed portfolios, managers are expected to take active decisions and as a part of that may invest in instruments beyond the benchmark universe. Knowing this information will help clients to understand the ways their portfolios are being managed.
1.4. Disclose if there have been any changes in the benchmarks.

*The portfolio benchmarks should be defined ex ante and not ex post. However, changes in the market environment or external circumstances may force the manager to change the benchmark (e.g. if the index provider discontinues to calculate a particular index and a replacement is necessary). Clients should be informed on such situations, especially if benchmarks are changed retroactively.*

1.5. If the portfolio allows discretionary leverage, describe how the leverage is employed.

*Clients should be aware that use of leverage may significantly influence the risk-return profile of the portfolio. Clients should demand information on to what extent and using what investment instruments the portfolio is being leveraged.*

1.6. Describe the process of investing/disinvesting the portfolio capital contributions and withdrawals.

*Contributions and withdrawals of cash and/or securities into/from the portfolio by the client, require appropriate portfolio adjustments in terms of investing/disinvesting, which can be at discretion of the portfolio manager with respect to timing and stock selection priority. Clients should understand how this is handled.*

1.7. Describe the principles of allocating trades among portfolios.

*Clients can expect fair dealing from their managers and demand information on how the principle of fair allocation of trades is implemented.*

1.8. Disclose the composite building philosophy of the investment manager and the composite the portfolio is included in. Disclose the investment strategy characteristics of the composite the portfolio belongs to.

*Knowing the composite universe of the manager and the particular composite the portfolio belongs to will help the clients understand how their portfolios generally fit into the investment process and focus of the investment manager.*

1.9. Disclose any discretionary use of third-party managers and sub-advisors.

*Clients should be duly informed if their investment manager employs sub-advisors or delegates the portfolio management to other third-parties.*

**2. Underlying portfolio input data**

2.1. Disclose the sources for securities prices and exchange rates used for the portfolio valuation and if they are consistent across all investment instruments in the portfolio.

*Reliable price sources are crucial for the quality of reporting. In addition, clients should be aware that use of different sources for securities kept in the same portfolio may create distortions in the valuation.*
2.2. Disclose if market prices are used for all instruments and assets in the portfolio. If not, what is the valuation process for securities and assets where market prices are not used / not available?

Portfolio valuation should be based on the fair value principle which implies use of the “tradable” market prices. Market prices are not always available for all instruments. For example, some less liquid bonds may be valued using interest rate curves, some OTC derivatives may not have a market price, and private equity investments may have to be valued using specialised valuation methods. Clients should understand the process of valuation of such instruments.

2.3. Disclose if the valuation of any instruments in the portfolio is based on preliminary or estimated prices.

The timely market or fair value prices may not always be available for all instruments in the portfolio. For example, some alternative investment vehicles may only deliver their final valuation as of the reporting date with a delay of several months.

2.4. Disclose if the portfolio valuations include accrued interest and dividend income from securities.

Timely accruals of the interest income from fixed income securities and dividend income from stocks (accounting for dividends as of ex-dividend date) improve the quality of the investment result calculation in the reporting period.

2.5. Disclose if portfolio transactions are accounted for using the trade date or settlement date principle.

Choice of accounting conventions with respect to the investment transactions may impact the presentation of the investment results, especially if the transaction trade and settlement dates lie in different reporting periods.

2.6. Disclose if the current reporting is subject to any retroactive corrections expected in the next time, e.g. reversing entries, missing transaction bookings, etc. What is the probable impact of these corrections?

If reporting is required to be provided immediately after the reporting date, it may happen that not all corrections have been captured by the internal controls system by that time. Clients should be aware of the impact of ex-post corrections if such corrections are expected.

2.7. Disclose if there are any differences with respect to sources and timing of prices of underlying securities between the portfolio and the benchmark and describe the impact of these discrepancies.

The underlying pricing data for portfolios and their benchmarks often do not come from the same source. As a result, inherent valuation distortions emerge which make portfolios and benchmarks less comparable. Clients should be informed if such discrepancies exist.

2.8. Disclose if the responsibility for the portfolio valuation, performance measurement and investment reporting is delegated to internal units not fully independent from the portfolio management unit.

To prevent conflicts of interest, investment managers should not be involved in the process of portfolio valuation or accounting.
3. Performance reporting

3.1. Describe the philosophy of the portfolio performance presentation. Is a client return perspective or a portfolio manager return perspective applied?

Portfolio performance can be calculated and presented either from the perspective of the client or from the perspective of the investment manager. From the client perspective, a money-weighted rate of return (MWR), net of fees, is often considered most appropriate to reflect the size and timing of client-driven cash flows and represents the actual net performance result. From the manager perspective, the time-weighted rate of return (TWR), gross of fees, is the best measure of the manager’s performance as it neutralises the effects of client-driven cash flows and return components beyond the manager's control (such as fees) and as such provides a comparable performance result. The MWR method is often used for performance reporting to existing clients, while the TWR method is used for performance reporting to prospective clients. Many managers also report TWR returns to existing clients. If managers report both MWR and TWR performance, it is advisable that the difference in the calculation methodologies and in the performance results are explained.

3.2. Describe the methodology and frequency of calculation of portfolio and portfolio segment returns (if applicable).

Clients should obtain information on specific portfolio return calculation methods being employed, e.g. Daily Valuation method, Modified Dietz, Modified IRR, etc. Various calculation methods may have significant impact on performance results.

3.3. Disclose if performance is presented gross or net of fees (management, custodian, administrative fees, bundled fees, etc).

Various fees incurred in the investment management process may be treated differently for performance calculation purposes. Clients should be able to assess the impact of fees on performance.

3.4. Disclose if the realised income from dividends and coupons is accounted for after or before deduction of applicable withholding taxes both for the portfolio and the benchmark. Is there a differentiation in treatment between reclaimable and non-reclaimable withholding taxes?

Assumptions with respect to withholding taxes applied for the performance calculation purposes may have a significant impact on the performance results especially in strategies where income component plays an important role.

3.5. Disclose if performance is presented gross or net of transaction costs and trading expenses.

Performance is usually presented net of transaction costs and trading expenses because they represent direct costs of investment management. Not accounting for such costs would result in a meaningless artificial performance.

3.6. Disclose if performance presented in the client reporting is calculated by the manager or by the custodian. Can a reconciliation of returns calculated by the manager with those calculated by custodian be provided and discrepancies (if any) be explained?

In case of external custody portfolios, performance figures may be provided both by the investment manager and by the custodian and may deviate for various reasons (e.g. different calculation methodology or assumptions regarding treatment of fees). Clients should be able to understand the reasons for deviations and assess the meaningfulness of performance figures.
3.7. Provide a performance presentation of the particular composite the portfolio belongs to (if available). Is this presentation GIPS compliant?

Composite comparisons may provide useful information on how consistently the portfolio has been managed as compared with other peer portfolios managed under a similar investment strategy.

3.8. Disclose the methodology of calculation of the benchmark performance and the assumptions with respect to the benchmark rebalancing.

Frequency of calculation of the benchmark returns may have a significant impact on the benchmark results. For example, for a balanced benchmark with fixed weights of the constituent indices, monthly return calculation implies a monthly rebalancing of the portfolio. Understanding this is important for a proper comparison analysis.

3.9. If the underlying portfolio includes leverage, disclose how the calculation of portfolio returns takes into account the leverage effect.

The method of return calculation for leveraged portfolios depends on whether the leverage is mandated by client or is at discretion of the investment manager, and also whether the manager performance perspective or the client return perspective is applied. For example, leverage mandated by the client can be treated as a source of capital from the manager perspective but will reduce the capital basis from the client perspective for the return calculation purposes. Clients should be aware of these implications.

3.10. Disclose the methods of calculation of the risk measures presented in the reporting.

Risk measures are important instruments within the performance analysis. Clients should understand the way risk measures are calculated and the underlying assumptions. For example, the return variability heavily depends on the frequency of calculation and the number of the data points in the observation period. Ex-ante risk statistics may involve a return forecasting mechanism, which reliability should be periodically tested by reconciliation with the actual results. Clients should be informed on the assumptions and models underlying the calculation of expected return and risk figures.

3.11. If performance (return and risk) attribution analysis is presented as a part of the client reporting, investors are referred to a separate questionnaire in the EIPC Guidance for Users of Attribution Analysis for a list or relevant questions.

4. Costs of investment management

4.1. Disclose the individual components of the costs associated with the investment management services.

Clients are entitled to a full and fair disclosure of costs of investment management and should be provided with a transparent breakdown of costs and expenses incurred within the reporting period, such as management and performance fees, custodian fees, portfolio administration charges, brokerage and commissions, indirect trading costs (e.g. bid-ask spreads), etc.
4.2. Disclose the methodology of calculation of fees, e.g. performance fees. Has an independent audit been performed with respect to compliance of this methodology with the investment management agreement?

Performance fees are often based on complicated models which may also be ambiguously worded. Clients should have assurance that the performance fees charged to their portfolios effectively comply with the investment management agreements.

5. Compliance with investment guidelines, regulatory requirements and industry standards

5.1. Describe how compliance with the client’s investment guidelines, such as investment restrictions, tactical asset allocation limits, rating restrictions, tracking error targets, etc., is ensured and disclosed in the reporting.

Client should have assurance that their investment guidelines are complied with and subject to an appropriate internal control process.

5.2. Describe how compliance with the statutory legal requirements applicable for a particular client, such as legal investment exposure limits, is ensured.

Client should have assurance that the applicable regulatory requirements are complied with and subject to an appropriate internal control process.

5.3. Disclose whether the client reporting has been provided by the investment manager to regulatory bodies.

This question may be relevant in case the manager is required by law to provide the reporting or parts thereof to the regulators.

5.4. Disclose if the investment manager is in compliance with the Global Investment Performance Standards (GIPS) and with any other industry investment reporting standards, e.g. EVCA Reporting Guidelines for private equity investments.

The GIPS compliance provides to clients additional assurance that investment management and performance calculation processes are subject to a standardised and uniform process and provide a greater degree of confidence in the reliability of the performance reporting.

Compliance with industry standards on investment reporting demonstrates the manager’s commitment to the best practice and transparency.

6. Risk management process

6.1. Describe if there is an appropriate risk management process with respect to investment and operational risks.

Managers should ensure that the client assets are appropriately invested, administered and protected with support of an appropriate internal risk management process.
6.2. Disclose if there is a business and systems continuity plan in place to ensure that the execution of the investment management business is guaranteed in case of disaster events or disruptions.

Clients can expect their managers to have appropriate procedures for safeguarding the client assets in case of emergency or market disruption situation.

7. Third-party examination

7.1. Disclose if any third-party examination or audit of the portfolio reporting and/or performance results has been performed.

Clients should have assurance that the accuracy of their reporting has been examined by an independent party.

7.2. Describe if the manager’s internal control process around the investment management business has been examined by a third-party.

Clients should have assurance that the internal control process their managers have in place is subject to regular examination by an independent party.

7.3. Describe if the GIPS compliance of the investment manager has been subject to an independent verification.

Verification of the GIPS compliance, although not directly relating to the individual reporting for existing clients, provides additional assurance in the reliability of the processes underlying investment management and performance calculation.

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**Chapter 5 – Relation to the Global Investment Performance Standards (GIPS®)**

RIPS EMEA does not currently view this Guidance as a part of the Global Investment Performance Standards (GIPS) compliance framework for the following reasons:

- The GIPS standards regulate presentation of investment performance, while the client reporting may also include other additional information.
- The GIPS standards deal with performance presentation for prospective clients rather than for existing clients.
- The GIPS compliance deals with performance reporting on the composite level rather than with reporting for individual portfolios.
- Some GIPS provisions may inherently not be applicable for individual client reporting, e.g. return calculation methods.

However, the Guidance admits that information produced within the GIPS compliant reporting may be one of the sources for client investment reporting. Clients are advised to duly inform themselves on the contents and the main provisions of the GIPS standards.
Related documents

- CFA Institute Asset Manager Code of Conduct
- EFAMA Code of Good Conduct on the Presentation of Performance
- EIPC Guidance for Users of Attribution Analysis
- EIPC Guidance on Performance Attribution Presentation
- EIPC Questionnaire for Investors
- EVCA Reporting Guidelines
- Global Investment Performance Standards (GIPS)
- NAPF Guidance for Assessing Manager’s Performance Presentations
- PEIGG Private Equity Reporting and Performance Measurement Guidelines
EUROPEAN INVESTMENT PERFORMANCE COMMITTEE

Guidance on
Performance Attribution Presentation
Section 1 – Introduction

Performance attribution has become an increasingly valuable tool not only for assessing asset managers’ skills and for identifying the sources of value added but also for facilitating a meaningful dialogue between investment managers and their clients.

Like any other performance presentation, a presentation of performance attribution results provides meaningful information to the user only to the extent the user understands the assumptions and concepts underlying this presentation. That’s why it is crucially important that the presentation of attribution results is provided in a way that does not mislead the users and contains all necessary disclosures to explain the underlying assumptions and concepts.

Given the aforementioned, the European Investment Performance Committee (EIPC) has decided to take the initiative and to address the demand of the investment management industry for specific guidance with respect to presentation of return and risk attribution analysis. The first step was the issue of the EIPC Working Paper „Guidance for Users of Attribution Analysis“ in early 2002. The following Guidance on Performance Attribution Presentation represents the next milestone in this process and establishes a reporting framework, which provides for a fair presentation of return and risk attribution results with full disclosure. EIPC acknowledges that this Guidance is not the final step in this process and will have to be developed further to address any new matters arising in future.

Except for definition of some general terminology, the Guidance does not address methodological issues with respect to calculation of attribution results, nor attempts to present any prescriptive definitions. EIPC believes that setting any standard on performance attribution should primarily contribute to increasing the understanding of attribution through the necessary disclosures and transparency of the methodology and investment process. For details on various performance attribution methods and concepts, users should refer to the dedicated performance literature available. Being a “disclosure guidance”, the Guidance can be generally applied to all types of investment portfolios (equity, fixed income or balanced).

The Guidance does not require investment managers to present return and risk attribution results. However, if investment managers do present attribution analysis, they are encouraged to provide full disclosure and to apply the provisions of the Guidance. As the importance of a particular piece of information may vary depending on the situation, EIPC believes that differentiation in the disclosures between required and recommended may be too subjective.

EIPC regards it as the responsibility of users of performance attribution to duly inform themselves about performance attribution concepts and, when presented with performance attribution results, to ask relevant questions to understand the underlying assumptions and methods. Not doing this may lead to misinterpretations and misjudgment of the quality of investment managers presenting the attribution results.

The Guidance was approved by EIPC in January 2004. EIPC proposes that this Guidance be adopted by the Investment Performance Council (IPC) as a guidance for the investment management industry.
Section 2 – Definitions

The purpose of the following definitions is to provide the user with an explanation on the terminology as it is used in this Guidance. The Guidance does not attempt to establish any absolute or dogmatic definitions and recognises that there may be various views and interpretations of these matters within the investment management industry.

Performance Attribution:
1) Performance attribution techniques are generally understood as a process of decomposition of return and risk into the investment management decisions in order to measure the value added by active investment management and to communicate the risk components of the investment strategy.

2) For the purposes of this Guidance term “Performance Attribution” refers both to attribution of historic returns and to risk attribution (ex-ante and ex-post). The Guidance emphasises the distinction between return and risk and encourages the view of performance as a combination of risk and return. As a rule, terms “Return attribution” and “Risk attribution” are explicitly used in this Guidance.

Excess / Active Return:
The difference between a periodic portfolio return and its benchmark return. This value may be calculated either as an arithmetic or a geometric difference. Also called relative return.

Return Attribution:
1) Return attribution techniques are generally understood as a process of decomposition of active (historic) returns into the investment management decisions in order to identify the sources of return.

2) Return attribution can be applied to absolute returns (absolute attribution) or to relative / excess returns, being the difference between the portfolio and benchmark return (relative attribution).

Return Contribution:
Return contribution techniques are generally understood as a process of decomposition of returns in order to measure the contribution of each particular segment of the portfolio to the portfolio overall return.

Risk Attribution:
For the purpose of this Guidance, the following elements of risk attribution analysis are defined:

Risk measurement:
The process of measurement of a portfolio’s risk in absolute (e.g. volatility, value-at-risk) or relative (e.g. tracking error) terms, both ex-post (historic) and ex-ante (predicted).

Risk attribution:
The first step of risk attribution is the risk decomposition, i.e. identifying the sources of a portfolio’s risk, both ex-post (historic) and ex-ante (predicted), both in absolute terms and relative to the selected benchmark. This process may include decomposition into sources of systematic and specific risk or into various factors (e.g. industry, style, country, currency, credit quality, etc.) affecting a portfolio’s risk; as well as determination of contribution of individual securities to the overall portfolio risk.

The further step of risk attribution is the process of measurement of contribution of investment management decisions to the active portfolio risk (e.g. to the portfolio tracking error).

Risk attribution for the purposes of this Guidance only refers to the analysis of investment risk and not to operational or other types of business risks.
Section 3 – Guiding principles

Investment managers are required to apply the following principles when calculating and presenting return and risk attribution results:

- Return and risk attribution analysis must follow the investment decision process of the investment manager and measure the impact of active management decisions. It is essential that the attribution analysis reflects the actual decisions made by the investment manager. Return and risk attribution analysis must mirror the investment style of the investment manager.

- For the attribution of relative return and risk, a benchmark appropriate to the investment strategy must be used. The employed benchmark should be specified in advance and meet such criteria as investability, transparency and measurability.

- If investment managers are not able to produce return and risk attribution results that comply with the above guiding principles, they still may use these results for internal purposes but should refrain from presenting attribution to external users or use it for the purposes of soliciting potential clients.

Section 4 – Disclosures

A. Return Attribution

The following disclosures are required to be provided, as long as they are applicable, when presenting return attribution results.

A.1. Investment Process

A.1.1 Object of a return attribution analysis

Firms must disclose the object of a return attribution analysis, e.g. a particular portfolio, a representative portfolio, a model portfolio, a group of portfolios (composite), etc., and the reasons for selecting this particular object.

A.1.2 Investment management process and investment style

Firms must disclose the main elements of their investment management process, including the key investment decision factors employed.

A.1.3 Benchmark

Firms must disclose the composition of the benchmark used for the return attribution purposes. Benchmark rebalancing rules must also be disclosed. If there has been any change in benchmark, the old benchmark(s) and date(s) of change(s) are to be disclosed.

In case of investments outside of the scope of the benchmark, firms must disclose the treatment of the impact of these investments, e.g. allocated to another attribution effect, presented separately, etc.

If the attribution is not based on a benchmark, firms must disclose the rationale for this.
A.2. Return Attribution Model

A.2.1 Return attribution model and attribution effects
Firms must disclose a description of the return attribution model\(^1\). Attribution effects derived (e.g. depending on the portfolio type: timing, security selection, currency effects, or income, duration, spread effects, etc.) must be clearly identified.

If the attribution model has changed during the period of analysis, these changes and the rationale for them must be disclosed. In addition, the implications for the attribution history, if any, as a result of this change must be disclosed.

A.2.2 Excess / active returns
Firms must disclose whether periodic excess returns are derived using an arithmetic or a geometric method.

A.2.3 Presentation period
Firms must disclose what time period the attribution analysis covers and why this period has been chosen.

A.2.4 Frequency of return attribution analysis
Firms must disclose the frequency of calculation of attribution effects (e.g. daily, monthly basis, etc.).

A.2.5 Linking methodology
If the attribution report provides effects which were calculated for subperiods (e.g., days) and linked to present results for longer periods (e.g., a month), then the details of the linking methodology must be made available upon request. If a smoothing algorithm has been employed to allocate in a systematic way residual effects over time, the type of this algorithm is to be disclosed.

A.2.6 Buy-and-hold vs. transaction based approach
Firms must disclose whether the return attribution approach is buy-and-hold or transaction based.

A.2.7 Interaction effect and/or unexplained residuals
Some attribution models generate interaction effects or even unexplained residuals. Unexplained residuals may impair the quality of analysis and conclusions that may be drawn from it. If the model has an interaction term or an unexplained residual, details of its treatment must be disclosed, e.g. presented separately, ignored, allocated to other attribution effects, etc.

A.2.8 Derivatives
Firms must disclose to what extent derivatives are included and how they are treated in the return attribution analysis.

A.2.9 Effect of leverage
If leverage is employed, firms must disclose how leverage effects are attributed according to investment decision process.

A.2.10 Foreign currency effects
If investments in currencies other than the base currency of the portfolio are employed, treatment of foreign currency effects in terms of the currency management strategy must be disclosed.

A.2.11 Inclusion of cash
Firms must disclose whether cash is specifically included in the attribution analysis and whether a cash benchmark is determined. Firms also must disclose any difference in treatment of strategic cash allocation positions vs. temporary cash from realised income.

\(^1\) If the model is one which has been documented in an industry publication, its name and source reference must be disclosed. If the model is a variation of a published model, the original name and source reference must be disclosed, as well as an explanation of the revisions which have been made. If the model is unpublished or proprietary, then a broad description of its details must be disclosed.
A.2.12 Transaction costs, fees
Firms must disclose the treatment of the impact of transaction costs, fees, etc. - e.g. allocated to a particular attribution effect, presented separately, etc.

A.3. Underlying input data

A.3.1 Portfolio returns
Firms must disclose:
- methodology and frequency of calculation of portfolio and portfolio segment returns,
- treatment of single performance components, such as management fees, custodian fees, taxes and transaction costs (gross vs. net treatment).

A.3.2 Benchmark returns
Firms must disclose:
- methodology of calculation of benchmark returns,
- any adjustments with respect to management fees, realised income positions, taxes etc.,
- source of data.
Firms are encouraged to disclose any other specific details that may be important.

A.3.3 Leveraged portfolios
If the underlying portfolio includes discretionary leverage, the firm must disclose whether calculation of portfolio returns is performed on an actual or “all-cash” basis.

A.3.4 Underlying valuation data
Firms must disclose if there are any differences with respect to sources and timing of prices of underlying securities between the portfolio and the benchmark.

A.3.5 Foreign exchange rates
Firms must disclose if the sources or timing of foreign exchange rates are different between the portfolio and the benchmark.

A.3.6 Income positions
Firms must disclose if realised income from dividends and coupons is considered after or before deduction of applicable withholding taxes both for the portfolio and the benchmark.

Firms are encouraged to disclose any additional matters they find useful or relevant for the users of attribution analysis.

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2 For details regarding „all-cash“ basis calculations refer, for example, to AIMR-PPS Handbook, 1997, App. B, p. 117
B. Risk Attribution

The following disclosures are required to be provided when presenting risk attribution analysis results.

B.1. Investment Process

B.1.1 Object of risk attribution

Firms must disclose the object of risk analysis, e.g. a particular portfolio, a representative portfolio, a model portfolio, a group of portfolios (composite), and the reasons for selecting this particular object.

B.1.2 Investment management process and investment style

Firms must disclose the main elements of their investment management process, including the key investment decision factors employed.

B.1.3 Benchmark

Firms must disclose the composition of the benchmarks used for the risk attribution purposes. Benchmark rebalancing rules must also be disclosed. If there has been any change in benchmark, the old benchmark(s) and date(s) of change(s) are to be disclosed.

In case of investments outside of the scope or profile of the benchmark, firms must disclose the treatment of the impact of these investments.

If the attribution is not based on a benchmark, firms must disclose the rationale for this.

In case risk attribution is presented together with return attribution, the same benchmark as for return attribution should be used. If a different benchmark is used, the rationale for this must be disclosed.

B.2. Risk Attribution Model

B.2.1 Risk attribution model and attribution factors.

Firms must disclose a general description of the risk attribution model, including description of the presented risk measures and risk decomposition factors.

If the risk attribution model has changed during the period of analysis, these changes and the rationale for them are to be disclosed. In addition, the implications for the analysis history, if any, as a result of this change must be disclosed.

The risk attribution should, where possible, involve both ex-post and ex-ante analysis. This should also involve a reconciliation of the ex-post and ex-ante measures in order to assess the validity of the model.

B.2.2 Ex-ante risk measures

When presenting forward-looking risk measures, firms must provide a broad description with respect to the methods used to estimate portfolio holdings and/or likely magnitudes of relative returns for individual securities, sectors or markets and their correlation with each other.

---

3 If the model is one which has been documented in an industry publication, its name and source reference must be disclosed. If the model is a variation of a published model, the original name and source reference must be disclosed, as well as an explanation of the revisions which have been made. If the model is unpublished or proprietary, then a broad description of its details must be disclosed.
Firms must also disclose the impact of the portfolio turnover and how this would influence their assumption regarding stability of the future portfolio asset structure.

B.2.3 Analysis period

When presenting risk measures, firms must disclose the reporting date of the analysis.

When presenting backward-looking risk measures, firms must disclose what time period the analysis covers and why this period has been chosen. In case ex-post risk attribution is presented together with return attribution, the analysis period should be the same as for the return attribution.

B.3. Underlying input data

B.3.1 Portfolio returns

Firms must disclose:
- methodology and frequency of calculation of portfolio and segment returns,
- treatment of single performance components, such as management fees, custodian fees, taxes, external cash flows and transaction costs (gross vs. net treatment).

B.3.2 Benchmark returns

Firms must disclose:
- methodology of calculation of benchmark returns,
- any adjustments with respect to management fees, realised income positions, taxes, etc.,
- source of data.

Firms are encouraged to disclose any other specific details that may be important.

B.3.3 Leveraged portfolios

If the underlying portfolio includes discretionary leverage, the firm must disclose whether calculation of portfolio returns is performed on an actual or “all-cash” basis.

B.3.4 Underlying valuation data

Firms must disclose if there are any differences with respect to sources and timing of prices of underlying securities and foreign exchange rates between the portfolio and the benchmark.

B.3.5 Foreign exchange rates

Firms must disclose if the sources or timing of foreign exchange rates are different between the portfolio and the benchmark.

B.3.6 Income positions

Firms must disclose if realised income from dividends and coupons is considered after or before deduction of applicable withholding taxes.

Firms are encouraged to disclose any additional matters they find useful or relevant for the users of attribution analysis.

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4 For details regarding „all-cash” basis calculations refer, for example, to AIMR-PPS Handbook, 1997, App. B, p. 117
Section 5 – Relation to the Global Investment Performance Standards (GIPS™)

EIPC does not currently view this Guidance as a part of the Global Investment Performance Standards (GIPS™) compliance framework. However, the Guidance can obviously be considered as a part of a broader ethical code of conduct for investment managers. Firms claiming GIPS compliance and presenting performance attribution analysis are encouraged to follow this Guidance. However, users should be aware that some GIPS requirements may not always be applicable for attribution analysis purposes, e.g. return calculation methods for individual client reporting.

Attribution analysis results may also be presented as a supplemental information to a GIPS compliant performance presentation. If attribution analysis is presented as a part of a GIPS compliant performance presentation, users should also refer to the GIPS Guidance Statement on the Use of Supplemental Information for guidance.
Appendix 1 – Example of return and risk attribution report in compliance with this Guidance

The following sample attribution analysis report refers to an equity portfolio and is an example of how a performance attribution presentation in compliance with this Guidance could look like. This sample report is absolutely not intended to serve as a “best practice” benchmark to present performance attribution in terms of methodology or layout.

### Investment Manager ABC

#### Return Attribution and Risk Attribution Report for Equity Portfolio XYZ as of 31.03.2001

<table>
<thead>
<tr>
<th>Return and Risk Attribution Report for:</th>
<th>PORTFOLIO XYZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period:</td>
<td>1.1.2000 - 30.03.2001</td>
</tr>
<tr>
<td>Reference Currency:</td>
<td>EUR</td>
</tr>
<tr>
<td>Benchmark:</td>
<td>Customised (refer to Disclosures)</td>
</tr>
</tbody>
</table>

#### Risk Analysis (end of period)

<table>
<thead>
<tr>
<th>Number of Securities</th>
<th>99</th>
<th>57</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Currencies</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

| Portfolio Value       | 227347728 |
| Total Risk (ex-ante)  | 15.76%    |
| Factor Specific Risk  | 4.91%     |
| Style                 | 11.95%    |
| Industry              | 15.76%    |
| Stock Selection Risk  | 2.72%     |
| Tracking Error (ex-post) | 2.29%    |
| Tracking Error (ex-ante) | 2.35%    |
| Value at Risk (at 97.7%) | 108384825 |
| Beta-adjusted Risk    | 15.99%    |
| Predicted Beta        | 1.02     |
| Predicted Dividend Yield | 2.22     |

#### Return Attribution Analysis by Industry Sector

<table>
<thead>
<tr>
<th>Sector Overweights</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Assets</td>
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<tr>
<td>Utilities</td>
</tr>
<tr>
<td>Resource</td>
</tr>
<tr>
<td>Non-Cyclical Services</td>
</tr>
<tr>
<td>Non-Cyclical Core Goods</td>
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<tr>
<td>Information Tech</td>
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<tr>
<td>Financial Services</td>
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<tr>
<td>Utilities</td>
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<tr>
<td>Cyclical Services</td>
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<tr>
<td>Cyclical Consumer Goods</td>
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<tr>
<td>Basic Industries</td>
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</tbody>
</table>

#### Asset Allocation

<table>
<thead>
<tr>
<th>Allocation</th>
<th>-4.0%</th>
<th>-3.0%</th>
<th>-2.0%</th>
<th>-1.0%</th>
<th>0.0%</th>
<th>1.0%</th>
<th>2.0%</th>
<th>3.0%</th>
<th>4.0%</th>
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### Attribution Analysis by Region

<table>
<thead>
<tr>
<th>Asset Allocation</th>
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<tbody>
<tr>
<td>Austria</td>
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#### Asset Allocation

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<thead>
<tr>
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<th>-3.0%</th>
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</table>

### Attribution Analysis by Region

<table>
<thead>
<tr>
<th>Stock Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
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<tr>
<td>Belgium</td>
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<td>United Kingdom</td>
</tr>
<tr>
<td>United States</td>
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<tr>
<td>Total</td>
</tr>
</tbody>
</table>
Disclosures

Investment Process

Object of the attribution analysis:
The return and risk attribution analysis is performed for Portfolio XYZ as an integral part of the periodic client reporting to company XYZ.

Investment management process and investment style:
Portfolio XYZ is a discretionary equity mandate with reference currency EUR managed in an active way against the customised benchmark specified by company XYZ as described below. In addition, the following specific client guidelines apply: outperform the defined benchmark (basis EUR) by 2% p.a. over a rolling 2-year period with a tracking error of max. 3% p.a.

Investment Manager ABC applies a top-down investment approach by actively modifying the portfolio asset allocation and taking active decisions with respect to stock selection. Foreign currency positions are not actively hedged. The inception date of portfolio XYZ is 1.1.2000.

Benchmark:
The benchmark for portfolio XYZ is given as follows:

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUR Cash Index Z</td>
<td>5%</td>
</tr>
<tr>
<td>EUR Stock Index X</td>
<td>60%</td>
</tr>
<tr>
<td>World Stock Index Y</td>
<td>35%</td>
</tr>
</tbody>
</table>

A monthly rebalancing is applied.

Results from investments in single stocks outside of the scope of the benchmark are allocated to the stock selection effect.

There were no changes in the benchmark since inception of the mandate.

Attribution Model

Return attribution model:
Return attribution is performed under the Brinson-Fachler method. Details and explanations to this model are available upon request. Returns are attributed to asset allocation (timing) and stock selection effects and presented according to the industry sector and region. Please refer also to disclosure “Interaction effect and/or unexplained residuals”.

There has been no change in the model since inception of the portfolio.

Excess / active returns:
Periodic excess returns are derived using an arithmetic method.

Presentation Period:
The return attribution and risk attribution analyses cover the period from 1.1.2000 to 31.03.2001 and is performed within the regular quarterly since-inception reporting.

Frequency of return attribution analysis:
The attribution effects are calculated on a monthly basis

Linking methodology:
The monthly attribution effects are multiplicatively linked to show the attribution results for the whole presentation period. No smoothing algorithms are employed to systematically allocate the residual effects over time. Details on the methodology are available upon request.
Treatment of transactions: The return attribution model is based on a “buy-and-hold” approach. However, as transactions in the portfolio usually occur at the beginning of the month and the attribution effects are calculated on a monthly basis, portfolio manager ABC believes that potential distortions should be minimal.

Interaction effect and/or unexplained residuals: The model generates a residual effect due to multiplicative linking of arithmetically derived attribution effects over time. This effect is presented separately as “Other effect”.

The model does not generate any other unexplained residuals.

Derivatives: Derivatives are not employed in this portfolio.

Use of leverage: Leverage is not employed in this portfolio.

Inclusion of cash: According to the defined portfolio benchmark, cash represents a strategic position and is specifically included in the attribution analysis against a specified cash benchmark index. There is no difference in treatment of the strategic cash allocation position comparing to temporary cash from realised income as the realised income cash is deemed to be immaterial.

Foreign currency positions: Foreign currency positions are not hedged into the portfolio reference currency. Foreign exchange effects of these positions are included in the return attribution analysis within the stock selection effect.

Transaction costs and fees: Returns are calculated net of transaction costs and gross of fees. The impact of transaction costs vis-à-vis the benchmark return is not calculated specifically as the model is not transaction based. The model implicitly includes transaction costs on a cash level.

Risk attribution analysis The presented risk attribution analysis includes both ex-post and ex-ante risk measurement and risk decomposition.

Ex-post analysis includes calculation of the historical annualised tracking error. Ex-ante analysis includes calculation of the predicted total risk of the portfolio (annualised volatility) and its decomposition into factor-specific (style and industry) and stock selection components. In addition ex-ante annualised tracking error and value-at-risk (VaR) measures are presented. The predicted VaR measure is calculated on the basis of the parametric (variance/covariance) method.

The methodology and assumptions used for calculation of ex-ante (predicted) risk measures are developed and implemented in the proprietary model of company WWW, broad details of which are available upon request. For the purposes of the ex-ante risk analysis, an assumption is taken that the portfolio strategic asset structure remains stable (with monthly rebalancing) over time.

While reasonable care is exercised when predicting risk parameters, users of this report should be aware of inherent limitations of such forecast methods as well as of the assumptions underlying the calculation of risk measures (such as normality of return distributions, etc.).

A periodic reconciliation of the ex-post and ex-ante measures is performed on a quarterly basis to assess the model risk. The historic reconciliation results (since portfolio inception) show that an average model error lies within the bandwidth of 200-300 b.p.
## Underlying input data

### Underlying portfolio returns:
The underlying portfolio returns are calculated in EUR on a monthly basis according to the true time-weighted rate of return method and under application of the total-return concept. Returns are calculated net of transaction costs and withholding taxes on interest and dividend income and gross of management and custodian fees.

The underlying portfolio data are derived from the accounting records of Investment Manager ABC. The source of securities prices and foreign exchange rates is data provider ZZZ.

### Benchmark returns:
The underlying benchmark returns are calculated on a monthly basis under application of the total-return concept and monthly rebalancing. The benchmarks returns are calculated on the basis of EUR as reference currency. The source of the benchmark data is data provider ZZZ.
GUIDANCE FOR USERS OF ATTRIBUTION ANALYSIS

Definition

Return Attribution is a technique used to analyse the sources of excess returns of a portfolio against its benchmark into the active decisions of the investment management process.

Preamble

Return Attribution is becoming an increasingly valuable tool not only for assessing the abilities of asset managers and identifying where and how value is added but also for facilitating a meaningful dialogue between asset manager and client.

In this guidance we have chosen the term “Return Attribution” rather than the more common “Performance Attribution” to emphasise the distinction between return and risk on the one hand and to encourage the view of performance as a combination of risk and return.

Risk and return attribution are equally valuable tools for assessing the abilities of asset managers, however, in this note we have focused on the attribution of historic returns.

Over the years many different forms of attribution techniques have been developed with varying degrees of accuracy. Additionally, attribution results may be presented in a variety of different formats, which in some cases may lead to different conclusions being drawn.

The following list of questions has been provided to assist the user of attribution analysis to gain the maximum value from the presentation.

Questions:

1. Does the attribution model follow the investment decision process of the asset manager?

Comment:

Attributing factors that are not part of the asset manager’s decision process add little value. It is essential that the attribution process quantifies the actual decisions made by the asset manager.

2. Is the benchmark appropriate to the investment strategy?
Comment:

Does the benchmark adequately reflect the investment strategy and hence the investment decision process? Has it been used consistently over time? Is this the formal benchmark for the portfolio?

3. Has the benchmark or investment style changed during the period of analysis?

Comment:

Benchmark changes and changes in style and restrictions should be disclosed. It is not appropriate to attribute using a current benchmark if changes have occurred. The attribution should reflect the benchmark assigned at the time and attribution effects should be compounded consistently.

4. Has the attribution model changed during the period of analysis?

Comment:

Changes and the rationale for changes should be disclosed.

5. Does the model generate an unexplained performance residual?

Comment:

Many attribution models generate residuals or balancing items. Essentially all factors of the investment decision process are attributable. Residuals may bring into question the quality of the analysis and bring into doubt any conclusions that may be drawn from it.

6. If a residual is generated is it:

i. Shown separately as a residual, balancing, timing, or transaction item?

ii. Ignored?

iii. Allocated between other factors?

Comment:
Because a large residual may be difficult to explain it may be renamed, ignored or even allocated to other factors. It is important to establish how the residual has been treated by the asset manager. It is not good practice to ignore residuals.

7. Is interaction specifically calculated?

Comment:

Interaction is a defined factor in early (classical) attribution models. It represents the combined impact (or cross product) of stock and asset selection. It is often used when asset managers wish to derive the stock selection effect assuming the portfolio asset allocations are in line with the benchmark. Interaction is the remainder stock selection effect caused by asset allocations not in line with the benchmark.

8. If Interaction is calculated is it:
   i. Shown separately?
   ii. Ignored?
   iii. Allocated to another factor?
   iv. Allocated to other factors consistently?

Comment:

Like residuals, large interaction effects are difficult to explain. They are often allocated to other factors or ignored. It is important to establish if interaction has been consistently applied to the same factor (i.e. Stock selection) over time. It is not good practice to ignore residuals.

9. Is the attribution model arithmetic or geometric (multiplicative)?

Comment:

There are two common forms of expressing excess return - Arithmetic \( r - b \) and Geometric \( \frac{1 + r}{1 + b} - 1 \). Different attribution models will be required to quantify arithmetic and geometric excess returns. \((r = \text{portfolio return}, \ b = \text{benchmark return})\).
10. If the model used is arithmetic, has a smoothing algorithm been used to allocate residuals to other factors?

Comment:

Arithmetic models are deficient for multi-period analysis, generating residuals over time. Smoothing algorithms have been developed in some cases which allocate in a systematic way this residual over time. The type of smoothing algorithm should be disclosed. Some geometric models are also deficient and hence should disclose any smoothing algorithm.

11. Is the attribution based on buy/hold snap shots or are transactions included?

Comment:

Stock level attribution in particular is data intensive. As an alternative, buy/hold attributions may be performed based on holdings at the beginning of the period. Clearly such attributions will not reconcile with real portfolio returns. Transactions and associated costs may be a significant factor in the portfolio return and are ignored in buy/hold type analysis.

12. How are the weights of the elements of attribution defined?

Comment:

All methods rely on allocating weights to the sectors to be attributed. Only weight measures that ensure the weighted sum of returns is equal to the portfolio return will be accurate.

13. Is the model genuinely multi-currency? What FX rates are used for the portfolio and benchmark?

Comment:

Currency effects should only be allocated if the asset manager has a separate currency allocation process. Forward currency effects should be calculated reflecting the fact that local returns cannot be achieved – only base currency or hedged returns. If the timing of FX rates is different from the portfolio and benchmark, this should be disclosed. Most international benchmarks use consistent FX rates.

14. How are asset allocation decisions outside of the benchmark treated?
Comment:

Any “bet” taken outside the benchmark will require an index to measure the impact of this decision. The choice of index will change the allocation between stock selection and asset allocation. The asset manager’s approach should be determined and should be tested to ensure the approach taken is consistent with the investment process.

15. Are transaction costs included within stock selection or asset allocation, or are transaction costs treated as a separate attributable factor?

Comment:

Typically all transaction costs are implicitly included in the calculation of stock level performance. However, asset allocation decisions may generate transaction costs which should be allocated to asset allocation. Some models allocate a notional transaction cost to asset allocation. Consideration should be given to attributing the impact of transactions in isolation and measuring the impact of dealing or the contribution of the Dealing (Trading) Department.

16. Are the returns to be attributed net or gross of fees.

Comment:

If the returns are net of fees compared to a benchmark not adjusted for fees it is possible that the stock selection impact will include fees.

17. Is cash specifically included in the attribution? If so, has a cash benchmark been determined?

Comment:

The user should establish if the attribution reflects all the assets within the portfolio. If cash is included, has an appropriate cash benchmark been selected? The exact use of cash (excluded, systematically allocated to sectors, or managed) should be disclosed. Since cash is lowly correlated with most assets and often not included in the benchmark it is frequently one of the larger “bets” in the portfolio and hence a contributor to relative performance.

18. Does the attribution include gearing or leverage and if so is the attribution based on an all cash analysis?
Comment:

If the asset manager is employing gearing this should be attributed according to the investment decision process. Is the gearing at portfolio or asset level? Gearing should be disclosed.

19. Are derivatives included in the analysis? If yes how?

Comment:

Just like any other asset class the impact of derivatives should be calculated in line with the investment decision process. It may not be appropriate to isolate the impact of derivatives alone. Attribution effects should be based on the economic exposure of derivatives if that accurately reflects the investment decision process.

20. Is the attribution derived directly from the asset manager’s records? Is there a difference between the return used in the attribution and the formal portfolio return?

Comment:

It is important to determine the source of the attribution data, is it from the asset manager, custodian, or other third party? Differences between the attribution calculated return and formal return should be identified. If top level returns (portfolio and benchmark) can be reconciled to third parties then is it appropriate to use the asset manager’s attribution model? (The third parties attribution model may not follow the asset manager’s decision process)

21. Which methodology is used to calculate portfolio returns?

Comment:

The return calculation methodology (Time weighted or Money weighted) will determine the accuracy of the attribution results and the weights used to determine factor allocations. In a similar way that large cash flows effect return calculations, large cash flows both external and internal between sectors in a portfolio may impact attribution calculations. Typically, more frequent return calculations lead to more accurate attribution results.

22. If the attribution base is not a benchmark what is the rationale for this choice?
Comment

Attributions can be performed against composites, representative portfolios, model funds, carve-outs, and peer groups. This should be disclosed together with the methodology used and the rationale for this type of presentation.