<u>**Comments on CFA Institute Return Attribution Standards**</u>

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1. Since these attribution standards are not part of GIPS, why are they shown in the context of GIPS composites? The most typical, relevant, and useful application of attribution analysis is at the individual portfolio or mutual fund level. The context of GIPS is an institutionally-oriented framework where a grouping of separate accounts within a strategy are included in a composite. This is only relevant for that part of the investment business.

   Most firms and investment advisors create single mutual funds and individual portfolios that would benefit from a standard for performance attribution. While the focus on composites is the familiar wheelhouse for the CFA Institute, it is not representative of most client segments, nor does it meet the needs of individual institutional and personal client portfolios. The fact that a representative portfolio is mentioned and allowed supports the notion that this topic would be better addressed independently, without limiting it by the composite-oriented guidance addressed in the GIPS standards.

2. Allowing the linking of an original and the new representative portfolios is a sound idea.

3. The validity of the composite return seems to be at risk in acknowledging an inability to break out the data that forms its aggregate values used to calculate composite return. This is a linear process that has its operational procedures that must be broken out into relevant components (i.e., sectors) but this is a straightforward process without additional complexity than what is already required to calculate composite returns.

   This trepidation regarding the feasibility of composite-level attribution invites companies to use the representative account (which may have return and risk statistics that differ from the composite.)

4. It seems without question that a firm should disclose the source of its attribution analysis: composite, representative account, or model portfolio.

5. Firms should be required to disclose that the policy for selecting the representative account is available upon request.

6. Gross vs net attribution is "*much ado about nothing*." Attribution is an exercise in **proportionality** regarding sources of excess return; it is not accounting. Attribution calculated from either gross or net returns should provide the same answers regarding where the proportions of total excess return were earned. You simply express these attribution effects in percent terms and apply them to the equivalent gross or equal net returns differences (using a reasonable expense for the benchmark in the case of net return attribution.)

   "*It's not what you make; it's what you keep*" and net valuation with net returns is the only honest evaluation of the capital the clients own after a performance period. Attribution analysis should be done on a net basis or it should at least be reconciled to published net returns and to each client's statement. This also allows both separate accounts and mutual funds to benefit from these standards.

7. Frequent attribution calculation erodes the credibility of the entire return calculation process because it undermines the underlying mathematical assumptions, such as IID. These problems are minimized as calculation frequency is lengthened. Despite this concept being common knowledge that has been published and presented, the industry and the GIPS standards continue to present the erroneous notion that "*more frequent equals more accurate*."

   Daily attribution calculation wastes resources, since portfolios do not change materially from one day to the next. Any portfolio with daily movements of substantial proportions of internal capital would be bankrupted by transaction costs, and these transactions belie any type of strategy. This is simply a myth, and this misperception must end if we are to have a realistic alignment of analytics with the actual investment process.

8. As noted, linking arithmetic attribution effects geometrically introduces errors (as arithmetic partial returns are not linkable.) This results in the use of so-called "smoothing algorithms" that simply spread the self-induced error systematically across the portfolio's active components. Increasing the frequency of attribution calculation is likely to exacerbate this problem. Conversely, geometric attribution has several superior characteristics (as noted) but this approach is foreign to most clients. Regardless of

method, the methodology must be disclosed.

9. Long-term attribution is required, since the essential client question focuses on the longer-term results of the investment manager's decisions. A useful suggestion is to use one of the longer-term, single period attribution methods, aligning this with attribution results that reflect the reporting frequency.

   One of these methods uses the periodic attribution effects in a long-single-period analysis. Another method creates a passive, semi-notional portfolio from the manager's tactical allocations, while creating a complementary, single-period selection vector. Using the attribution proportionalities suggested earlier, any of these methods creates a consistent attribution analysis that matches the reported difference between the geometric returns of the portfolio and its benchmark. This has all been published and is available for guidance.

   My firm calculates multi-year attribution in a single step, using both methods. This provides exact answers without requiring linking and smoothing.

10. Firms typically present attribution for the current quarter, and they also provide attribution results for longer periods. Consistency in their presentations across time seems to be an obvious requirement.

11. It also seems reasonable that firms should present segment returns for both the representative portfolio, the composite, and the benchmark. This is an essential element of disclosure, in the context of explaining decisions and their results. The same is true for the weights. (As the song says: "*You can't have one without the other*.")

12. Performance attribution is meaningless without an appropriate benchmark. I see no reason why a benchmark would not be available. Performance attribution should not be presented without a benchmark. Price-only benchmarks are an absurdity and should not be permitted. Custom benchmarks are often necessary, and their calculation methodology must be fully disclosed.

    All the draft's recommendations on benchmarks should be accepted.

13. Only attribution effects that represent the strategy should be used. However, if a company wanted to use a different set of effects (e.g. substituting beta groupings

instead of industry sectors) then this should be permitted as supplemental information.

14. Return contribution is a rudimentary insight that has no relation to attribution relative to a benchmark, and it does not belong in an attribution report; neither does it make up for the lack of a relevant benchmark in the analysis.

15. Interaction effect is simply an error in the calculation of the selection effect. It demonstrates a misunderstanding of the investment process, where the initial decision is tactical positioning (which can be implemented using passive funds.) This first decision is followed by the selection of investments. The second decision is constrained by the initial tactical allocation. Therefore, the selection effect for the portfolio must be calculated using the tactical weight, rather than the benchmark weight.

    If a firm chooses to create an interaction effect, this must be added to the selection effect, and this procedure should be disclosed to the client.

16. Attribution methodology (holdings-based, transactions-based, returns-based) must be disclosed, along with relevant information about the calculation (such as the holding period for holdings-based attribution.)

17. Transaction-based attribution cannot reconcile to stated excess returns when time-weighted returns are used (since time weighted returns assume no interim trading.) This inherent conflict between two opposite scenarios (i.e., weightings that reflect transactional cash flows applied to returns that ignore the effect of these flows) is the source of the residuals that have been mentioned.

    Investment managers should also be provided with the option to create attribution analytics using money-weighted values. This methodology creates the required values of contribution to excess return, along with correct attribution proportionalities that can be applied to the known excess return. This is an intellectually-honest approach that reflects the investment process, while providing the flexibility needed in high-transaction portfolios (such as holdings that are added after the start of the performance period and exited before the end of the period.)

18. Returns-based attribution is a robust approach that is long-term in nature and which creates a single-period analysis of allocation vs selection. It is highly intuitive, although it requires some client education regarding its regression-based method.

19. Residuals created from inconsistent definitions and operational problems should be classified as unexplained residuals, or they can be buried in the so-called "selection" effect, which is itself a residual value. It is disingenuous to simply classify unexplained differences in results with the euphemism "trading effect."

20. Cash is no different from any other "out of benchmark" sector that is held in the portfolio. As such, it should be part of the attribution analysis, where it contributes both an allocation effect and a selection effect. Ignoring cash from the attribution should be disclosed.

21. Agree that currency should only be part of the attribution analysis when it is part of the decision process. However, explaining the currency effect as an unintended or unmanaged aspect of performance is also reasonable. Failing to do so places the currency effect in the "selection" residual, which is another reasonable result.

22. Firms should disclose data differences from inconsistent operational and analytical sources. They should also disclose whether this had a material effect on the attribution results.

23. The GIPS standards regarding disclosure of the use of leverage and derivatives should be upheld in the attribution standards, along with an explanation of how these affected the return attribution.

24. Reclamation of withholding taxes is not likely to affect performance attribution; this simply affects total return.

25. How can these standards tell only half the story?

Return attribution is incomplete and (and often meaningless) without a corresponding attribution of active risk (i.e., tracking error.) Failing to provide both contribution to excess return and contribution to tracking error often leads to erroneous conclusions about the decision process and its results (the best decisions may be the worst ones.)

A frequent problem is found in a sector that contributed substantially to excess return (perhaps 40% of the total) while contributing even more to active risk (perhaps 60%.)

We may see a super-efficient allocation process (contributing a greater proportion of the portfolio's active return than it contributes to active return) while the selection process is *the opposite (contributing more to active risk than to active return.)*

Presenting only an analysis of active excess return is incomplete and often meaningless. Clients deserve to see the entire analysis of the active decisions.

Summary of Questions posed in Draft

Question 1: Should firms disclose that the policy for selecting representative portfolios is available upon request? **Yes**

Question 2: Does your firm show attribution for periods greater than one year? If so, what is the longest period shown? Yes. Longest period is since inception (even 30 years.)

Are there challenges with presenting attribution periods greater than one year that are not addressed in this Guide? **No.**

Question 3: For periods greater than one year, does your firm calculate attribution on an annualized or cumulative basis? **Annualized**

What factors influence your decision? **Understandability, Familiarity, Relevance.**

Question 4: Is there any other information related to cash that firms should disclose? **No.**

Question 5: Is there any other information about currencies that firms should disclose? **No.**

Question 6: Please share if there is any additional information about the treatment of leverage and derivatives in return attribution that should be disclosed. **None.**

Appendix-related Comments

1. The Brinson-Hood-Beebower attribution model has largely been debunked, both in print and by the negligible usage found in the. Even a novice would see that this method rewards overweights to sectors with positive returns, even if those sectors underperform the benchmark average return. This is an obviously incorrect methodology, since the goal of attribution is to identify sources of outperformance relative to the benchmark.

   There is no value in continuing to pay homage to a flawed method, simply because it was authored by one of the creators of a well-accepted method, or because it followed the original article. To your credit, you note the fact that few firms use this method, and you do so in polite language. That said, it is also worth noting that this method is inconsistent with the basic goal of attribution.

2. Your fixed income attribution map is a mix of structural factors and selection factors, with no distinction made between them. Some are critical components of the decision process (duration, Treasury change and spread change being major determinants of price change) while other factors (roll, convexity) are typically characteristics of issue selection, and are not found in an active strategy's list of decision factors. To be clear, these are not portfolio-level factors that drive strategic or tactical asset allocation. Rather, they are characteristics found in certain issues, and they should roll into the selection effect. Further, introducing quadratic factors like convexity complicate what is otherwise a flexible, linear attribution model that differentiates critical factors from selection factors that are sometimes part of the selection decision, but at other times are simply indicative of the bonds that are available for sale (understanding that only a small part of the bond market trades, so that in some sectors you buy the bonds you can get, and you accept differences in these minor characteristics.)

   A simpler explanation of fixed income attribution (consistent with equity attribution) is the combination of weighting and duration in determining exposure. This is best tied to the sector allocation decision, where it describes true sector exposure. This also allows breaking out the money decision from the risk decision. Further, this allows a holistic analysis of yield curve exposure between the portfolio and its benchmark in a meaningful way that represents the allocation decision process.