Adjustments to Prior Period Returns

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by: David Spaulding and Dr. Stefan J. Illmer;

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IIPC Illmer Investment Performance Consulting AG

Kontaktadresse
Illmer Investment Performance Consulting AG
Weinbergstrasse 28
CH – 8200 Schaffhausen
Email stefan.illmer@iipc-ag.com

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By: David Spaulding and Dr. Stefan J. Illmer

One problem that is common among all money management firms is the need to address adjustments to prior period returns. This article discusses some of the reasons for these problems, alternative ways people are dealing with them, and a set of “proposed standards” for handling adjustments. It is our hope that these standards will become universally accepted and agreed upon.

Why we have to make adjustments

Each month, money managers use their portfolio accounting data as the basis for the rates of return they publish and report. Prior to initiating the reporting cycle, however, the portfolios typically go through a reconciliation process with the account’s “official books and records.” These records are typically maintained by the account’s custodian or clearing broker, who is responsible to insure complete integrity of the data.

For a variety of reasons, there are often exceptions discovered between what the money manager believes the portfolio looks like and what the custodian shows. There can be a variety of reasons for this, including:

- missed trades. Perhaps a trade was processed against the wrong account or wasn’t correctly registered on either system.
- mishandling of corporate actions. On occasion, a corporate action may have been missed completely or simply not processed correctly.
- missed cash flows. Perhaps the client added or withdrew funds from the account; while the custodian may have recorded these actions, the manager may not have been aware of them and therefore didn’t record them on the portfolio accounting system.
- pricing problems. This is especially a problem for securities that aren’t actively traded or for which market prices aren’t available. We may have overridden a price, only to learn later that our manually applied price was incorrect. Pricing inconsistencies can lead to erroneous rates of return being reported.
- exchange rates. Differences in the sources for exchange can also cause differences. Sometimes huged ifferences.

Once the reconciliation is complete, the money manager confidently moves forward and produces rates of return which will appear on client statements, in their GIPS® and AIMR-PPS® presentations, and in the firm’s marketing brochures.

Unfortunately, the story doesn’t end here. On occasion, we will learn of problems that occurred in a prior period, after the reconciliation has been done, which may cause us to reconsider the accuracy of previously reported rates of return. What can cause these problems? Well, they are often similar to the problems we identify during the reconciliation process:

- failed trades. Perhaps a trade that was booked wasn't able to settle, necessitating the trade being cancelled.
- incorrectly processed trades. Trades may have been recorded and reconciled, but later found to be in error.
- problems with corporate actions. Often, all the details necessary to properly process a corporate action may not be available for several weeks, possibly months following the announcement. For example, with a spinoff, there may be shares plus cash issued, but the specifics may not be known for some time. Once they're known, back-dated adjustments may be needed.
- pricing problems. Perhaps as a result of misapplied corporate actions or trade problems, we may also have pricing problems.

On occasion, our custodian may have made an error that they don't discover for some period. When they do, they adjust their records. Should we?

Another source of potential errors is benchmarks. On occasion, a benchmark provider will go back and adjust a previously reported index. Perhaps they had mispriced a security or failed to process a corporate action; or, there may have been some other cause for their error. If we've used the benchmark data in our attribution analysis, we may want to go back and recalculate our numbers.[1]

Once the money manager becomes aware of these as-of adjustments, they must decide what to do from a reporting process. Do we recalculate our previously reported returns and inform the client of changes? Do we change our returns on our GIPS presentations?

The problem with changed returns is that the client normally notices them, especially if calendar year or fixed period returns are shown. Showing rolling returns can reduce this risk, but is not in line with the GIPS or the AIMR-PPS.

Reasons not to make the changes

One reason firms often don't want to tell their clients of changes is they feel this will suggest that the firm doesn't have the correct controls in place to catch these problems before the reports are issued. They feel that these adjustments will only raise concerns about their processing and the new results will have little benefit to the client. While we can understand the basis for this position, we don't feel it's justified. Clients need to be aware that there will be occasions when prior period results will change. Our clients should be pleased that we are willing to go back and make the necessary adjustments to insure the highest quality of our reported data.

The change will be captured in a subsequently reported return. This often does happen. For example, perhaps we missed a trade, thus our ending period market value may be incorrect. However, the correction will be made in a subsequent period, and we expect the numbers to be adjusted in the next period. While this may be true, it doesn't take away from the fact that a prior period had an erroneous return.

Another reason firms may not wish to make changes is because they have little impact on the previously reported numbers. Changes that may be considered minuscule may not be felt worth addressing. We don't necessarily disagree with this notion and have included it in our proposed approach. We refer to this as "materiality," which you'll see below.

How firms handle retroactive adjustments

We have discussed this topic at a few meetings of the Performance Measurement Forum and have some insight into what the process may look like. In general, this is what seems to occur.

#1 Ascertain the materiality of the correction. In order to do this, we must calculate the return after the correction is made and compare it with the previously reported number(s). Firms will often establish (perhaps not formally) some cut-off, below which nothing will be done. Criteria such as the change relative to the published return or how far back the change would have to be made will be considered.

#2 Freezing of time periods. Many firms will "freeze" a time period, after which no change will be applied.[2] While we can understand the reasoning behind this, depending on how recent the freezing may be applied, we may be creating some problems. For example, if our policy is to freeze any returns reported prior to the last quarter, we're not allowing much of a window for adjustments. Freezing may be applied to the previous calendar year with a lagging period of six months (after verification).

Proposed Approach

1. Written Policies and Procedures

We feel that firms must have written policies and procedures on handling prior period adjustments. That these policies should be strictly adhered to.

Clearly, the presence of controls is of utmost importance, as they will help minimize the need to make adjustments. For example, to avoid distributing returns until after the reconciliation process has taken place. Unfortunately, the pressure to reveal numbers is often so great that we issue returns prior to the reconciliation being completed. We recommend that any numbers published in such a manner carry notation such as "preliminary numbers; changes may occur as a result of reconciliation" to alert the recipients that the numbers haven't been finalized. Following the reconciliation, subsequent reports can carry the notation of "final." Of course, we realize that "final" doesn't always mean "final." Example: for a GIPS or AIMR-PPS report, we may want to use a phrase like "figures have not been verified yet and are therefore subject to change."

Another matter, which should be part of the firm's policies, is *when* the books should be "closed." And, if they are closed, under what circumstances can they be reopened?

Let's now address *when errors are truly errors*. Do people expect their reports to be *estimates,* in which case, adjustments are merely finalizing the previously estimated reports? Under this approach, would it be necessary to announce a correction, since the recipient should understand that what they received was an estimate?

A lot depends upon the level of sophistication of the recipient. It's difficult, if not impossible, to know how performance-savvy our clients are. The reality is that the knowledge level probably varies considerably from client-to-client. We may want to consider having a policy with each client which outlines *when* we will notify them of changes. Education important as (a) the returns, in many cases, are only approximations of the "true, time weighted rate of return" and (b) because individuals who are knowledgeable about the investment industry know that changes do occur.

2. Definition of Materiality

Our decision as to whether to apply a change or notify recipients of changes will be tied to the materiality of the correction. For example, if we reported a year-end return of 23.16%, but found that it should be 23.15%, is a one basis point change worthy disseminating? Perhaps not. So, what will the cutoff be?

Something to consider: report returns to ten basis points (one decimal place). This would mean that both 23.15% and 23.16% would be reported as 23.2%, meaning no notification would be needed. This may be easier said than done, however, as many people expect to see returns shown to the basis point, as if this level of detail really shows the true accuracy of the information.

Table 1 shows an example of the factors that you might consider when defining your level of materiality. We believe there may be one set of rules for portfolios and another for composites. Also, we might have rules based on security types. Other factors we're considering is the length of the reported time period (month, quarter, year). Finally, we have one set of rules for republishing and another for restating. I.e., we might recalculate our returns based upon a certain degree of error, but won't actually republish (i.e., notify the recipient) of the change unless it's of a higher degree of materiality. These rules may be defined on product level because depending on the underlying data (for example emerging markets) one or two basis points may be nothing.

Another issue is if we have accounts which are valued only once a month and for which the account value is only available three weeks after month end (e.g., for hedge funds). In these cases, other rules may be applied because it makes no sense to send a letter for correction every month to the client.

Our rule may be based upon the magnitude of the correction. Two possibilities: *absolute* and *relative*. While our table shows the changes in absolute terms, we might want to consider materiality based upon relative magnitude, as well.

An absolute change of 10 basis points or more, for example, may trigger a correction.

			Time Periods		
			Month	Quarter	Year
Portfolios	Equities	Restate	□ 1 bp	□ 2 bp	□ 3 bp
		Republish	□ 3 bp	□ 4 bp	□ 5 bp
	Fixed Income	Restate	□ 1 bp	□ 2 bp	□ 3 bp
		Republish	□1 bp	□2 bp	□3 bp
Composites	Equities	Restate	□ 2 bp	□ 3 bp	□ 4 bp
		Republish	□ 3 bp	□ 4 bp	□ 5 bp
	Fixed Income	Restate	□ 2 bp	□ 3 bp	□ 4 bp
		Republish	□ 2 bp	□ 4 bp	□ 6 bp

Table 1: Materiality Table

From a *relative* standpoint, (relative to the benchmark), a change which would cause the portfolio or composite to move in relationship to the benchmark (e.g., from outperforming to underperforming), regardless of the absolute magnitude, might trigger a correction. Or, the change relative to the size of the return (one basis point in comparison to a return of one percent counts a lot more than one basis point versus a 10% return).

3. Freezing Time Periods

While we feel that it’s appropriate to “freeze time periods,” we should be prepared to “open” a previously closed time period should the magnitude of the correction warrant it. For example, if our policy is to close a prior year once we’re at least six months into the new year, what happens if we discover an error that would result in a change of 500 basis point (5%)? Wouldn’t this warrant a reopening of the period (books)? We believe it would.

The policy should state when time periods are “frozen,” and what would be done if a very large change had to be applied.

4. The Process

Some firms will go through the following process when an error is identified:

Step 1 – recalculate the returns.

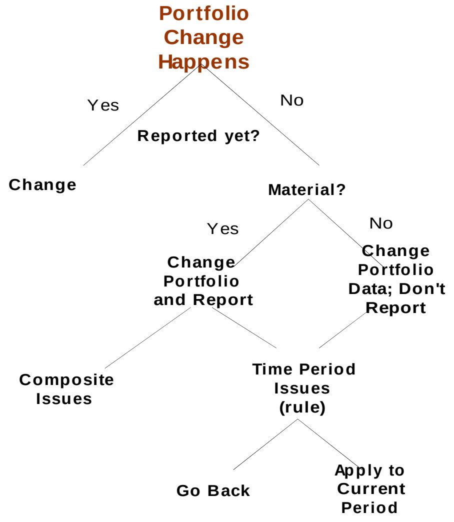
Step 2 – compare degree of correction to the materiality table. If the magnitude warrants action, provide to a responsible party (individual or committee) for review. This may also go through the firm’s legal or compliance department for review.

Step 3 – decide on what action to take. Document the original number, the corrected figure, and the action taken.

Figure 1 shows a “decision tree” that you might employ for handling corrections. As you can see, the first step is to determine whether or not a report has been sent to the client; if it has, then a change would be needed (providing the magnitude exceeded our threshold).

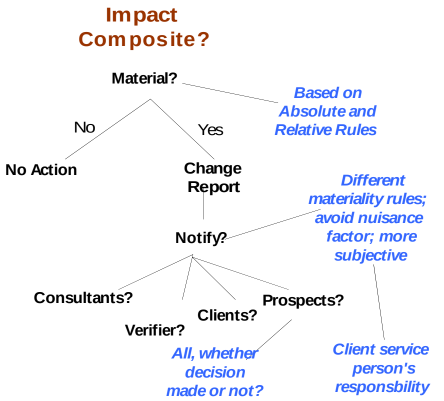
Note: Ideally, the client contract has a section on performance measurement and a disclaimer or understood policy with respect to corrections.

Figure 2 provides a similar approach, but with respect to changes in composite returns. In this case, we don't only need to address notifying the prospect, but also clients, verifiers, and others.



1 – Decision Tree for Portfolio Changes

Ideally, clients should be able to identify their rules for materiality (i.e., at what level they want to be aware of changes to prior periods). Alternatively, they would default to standard firm policy.



2 – Decision Tree for Composite Changes

Performance-Based Fees

It's important that the firms policy be sensitive to situations involving performance-based fees. There's a belief that if an adjustment is made, it will be caught up in a subsequent period. If this is true, perhaps an adjustment isn't needed. But this needs to be assessed.

Another issue occurs if the custodian provides the return which is used for the fee and the error occurs there. A review should be performed to determine the magnitude of the error and how the change should be handled.

What if the problem is with the index provider? If the provider makes an adjustment, then a review is in order. If the provider didn't make an adjustment, then the firm may elect to calculate the index's return as they belief it should be and, if appropriate, report and take the appropriate action to insure the correct fee is assessed.

Educating the client

As noted earlier, it's important for clients to be aware that errors do, on occasion, take place. How this is communicated may vary, depending on the size or sophistication of the client. However, if the portfolio is subject to prior period adjustments, it's important that the client be aware of this and what may cause an adjustment.

This educational exercise is not only important for clients but also for consultants.

A similar issue is adjusting the return of an attribution software to the official return calculation.

All users of returns should realize that the correctness of a return figure is dependent upon the quality of lots of input data for which the money manager doesn't control and is not responsible for.

Proposed Standards

Now, to the standards we discussed early on.

In a recent issue of this publication we find proposed standards for attribution (Spaulding 2003). This paper was fairly extensive.

Regarding handling corrections, we propose some fairly basic standards which we feel the industry should follow. As you'll see, they're rather brief:

#1 Develop and maintain a written policy: All firms (who are subject to as-of adjustments, (and who isn't?)) should develop and maintain written policies and procedures that outline what steps they take in the event of changes to prior period returns. Any as-of changes (whether or not action is taken) should be documented (the change, the reason for the change, the action(s) taken).

This is in line with GIPS which now mandates the development of policies and procedures. This is just one of those policies which a firm should have.

#2 Make available upon request: Written policies must be made available to clients and prospects, upon request.

We don't propose that there be one universal set of standards and that everyone adopt them. However, we realize that changes occur and that it's important that investment firms outline how they handle them. This is also in line with the spirit of GIPS: consistency, disclosure and fair representation.

Everyone is subject to the problem of having changes occur. The question is "what do we do about it." We've attempted to outline the reasons, issues, and some suggestions on how to deal with these problems.

Endnotes

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1. Why do index providers not care about informing money managers about changes to index data? We don't

have the answers. They generally seem unwilling to inform clients about data changes. Historical data changes are a nightmare for every return attribution department – because it is not so easy to identify the changes by yourself.

2. Some firms refer to this as “closing their books.” But “closed books” can be opened again, under certain circumstances (analogous to *unfreezing* time periods).