Since 1990, The Spaulding Group has had an increasing presence in the money management industry. Unlike most consulting firms that support a variety of industries, our focus is on the money management industry.

Our involvement with the industry isn't limited to consulting. We're actively involved as members of the CFA Institute (formerly AIMR), the New York Society of Security Analysts (NYSSA), and other industry groups. Our president and founder regularly speaks at and/or chairs industry conferences and is a frequent author and source of information to various industry publications.

Our clients appreciate our industry focus. We understand their business, their needs, and the opportunities to make them more efficient and competitive.

For additional information about The Spaulding Group and our services, please visit our web site or contact Chris Spaulding at

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http://www.SpauldingGrp.com

MONEY WEIGHTING IS CATCHING ON!

Anyone who has been reading *my stuff* (*i.e.*, this newsletter, my articles, my blog) for any length of time knows of my passion for money-weighting (I can hear some groans, but please bear with me). Well, it's catching on!

I reported earlier this month in my blog[1] that GASB (the U.S. Governmental Accounting Standards Board) has issued a new provision, calling for the use of money-weighted returns; they specifically call for the use of the internal rate of return (IRR).

A fellow from GASB called me several months ago to discuss this matter, as they were beginning to formulate this provision. They were apparently considering time-weighting (probably partly as a result of its use in the GIPS® standards), which only makes sense, given the global (pun intended) popularity of these standards. However, they wisely recognized that the basis for their reporting was quite different than what is done with GIPS. Briefly:

- GIPS is for those who manage money, to demonstrate their skills. Time-weighting eliminates or reduces the impact of cash flows that are controlled by the client.

- GASB is for the owners or overseers of the assets, and money-weighted returns are used in order to reflect the performance of the funds.

If you've been involved with performance measurement for any length of time you have probably run into the situation where you *lose money* but *have a positive return*, which can be quite befuddling. What good would it do for a plan to show a positive return to its fiduciaries, shareholders, pensioners, the public, if in reality it lost money? The answer is quite obvious: none!

As my friend Steve Campisi mentioned in a comment to the aforementioned blog post, "it is the right tool for the job."

SMOOTHING

Carl Bacon, CIPM, when asked to contrast geometric and arithmetic attribution, will no doubt point out the chief advantages geometric offers:

- **Proportional:** the active return is a ratio, not a difference, as we find with arithmetic.

- **Convertible:** the active return is independent of the base currency; the geometric active return will be the same whether it's expressed in dollars, euros, pounds, yen, etc.

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1   See http://investmentperformanceguy.blogspot.com/2012/08/another-victory-for-money-weighting.html

- **Compoundable:** the geometric active return multiplies across time; no "smoothing factor" is required for linking, as it is with arithmetic.

Carl is, of course, correct in all of these points; however, he fails to explain that while a smoothing factor isn't needed "across time," as we "link" our single period effects, one is needed "within time." That is, we need a smoothing factor <u>for every single time period</u>.

In his '05 FAJ article[2] on geometric attribution, Jose Menchero, PhD, CFA discusses the need for this smoothing factor. He points out how one can arrive at a "pure" geometric equivalent of an arithmetic model, but that this will not result in an approach that will fully reconcile the effects to the excess return: a smoothing factor of some sort is necessary.

Let's consider Carl's formulas, for example. Before we begin I should point out that his attribution model is the geometric equivalent of Brinson-Fachler. The allocation effect:

$$Allocation_G = \left(w_{Pi} - w_{Bi}\right) \times \left(\frac{1 + r_{Bi}}{1 + R_B} - 1\right)$$

where:
  w_P = portfolio weight
  w_B = benchmark weight
  r_B = benchmark sector return
  R_B = benchmark return
  i = the sector being worked on.

The astute observer will notice its similarity to the arithmetic form:

$$Allocation_A = \left(w_{Pi} - w_{Bi}\right) \times \left(r_{Bi} - R_B\right)$$

I.e., it's the difference in weights (stated in an arithmetic fashion) times the relative benchmark return (sector relative to overall), expressed as a ratio rather than subtraction.

Now, let's consider the selection effect. Recall that Carl isn't a fan of the interaction effect, so we will *bundle* it with selection. But let's first look at the arithmetic form:

$$Selection_A = w_{Pi} \times \left(r_{Pi} - r_{Bi}\right)$$

where:
  r_P = portfolio return.

Using the same approach that Carl used to create the geometric version of the allocation effect, one would expect the formula to look as follows:

$$Selection_{G_{Expected}} = w_{Pi} \times \left(\frac{\left(1 + r_{Pi}\right)}{\left(1 + r_{Bi}\right)} - 1\right)$$

2 Menchero, Jose, 2005, Optimized Geometric Attribution, Financial Analysts Journal 61.

That is, the portfolio weight times the difference in returns, where the difference in returns is again expressed as a ratio.

We could say these effects are the *geometric equivalent of their arithmetic counterparts*. However, if you adopt this form you will have a residual!

What to do, what to do?

Jose would refer to these formulas as being in their "pure" form, as they are merely the geometric versions of the arithmetic formulas. But as he correctly points out, we will have a residual.

Jose offers a rather healthy formula to "smooth out" the residual.[3] Carl, however, incorporates the smoothing in the formula itself. Carl's actual selection formula is:

$$Selection_G = w_{Pi} \times \left(\frac{(1+r_{Pi})}{(1+r_{Bi})} - 1\right) \times \left(\frac{1+r_{Bi}}{1+R_s}\right)$$

where:
   R_S = semi-notional[4] return.

Note the presence of an extra factor (one plus the benchmark sector return, divided by one plus the semi-notional return). Carl explained that he needed this factor for the effects to tie out to the excess return. Although it isn't stated, this is a "smoothing factor."

This means that Carl places the residual entirely into the selection effect, while Jose ensures that the residual is assigned across all effects in some appropriate or proportionate fashion. I do not wish to justify one approach over the other. Carl's is clearly much simpler to work with than Jose's, and perhaps the differences are immaterial.

Consider the arithmetic linking methods (*e.g.*, Jose's, David Cariño's, Andrew Frongello's, GRAP's): they all allocate the residual across effects. This might suggest that Jose's approach to geometric attribution is better, as it does the same thing. But, is it worth this extra effort? That's up to the user to decide. Ideally, I would say yes, though it definitely complicates the process.

My point is merely to explain, as clearly as possible, that just like arithmetic, smoothing is needed; it's just that arithmetic attribution has no residual for the single period, but will across periods; while geometric has a residual for single periods, but once they're smoothed out, won't have one across time. It's the attribution equivalent of *you can pay me now, or you can pay me later*, but surely you will pay: *you can smooth now or later,* but smooth you will.

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3 As I mentioned, his approach is rather "healthy." If you're interested in reviewing it, I suggest you obtain a copy of Jose's article. Note that he wrote a similar article for *The Journal of Performance Measurement*: Winter 2000/2001.

4 As Carl explained it to me, "notional" is equivalent to a benchmark; *i.e.*, if the money had been invested in the benchmark, the "notional" return would have been x percent. Some refer to this as being "fully notional." Semi-notional reflects the intermediate stage, one step away from or towards the benchmark (or fully notional) return. It reflects the asset allocation decisions but none of the selection decisions.

To quickly summarize:

Smoothing Needed	Arithmetic	Geometric
Intraperiod (within)	No	Yes
Interperiod (across)	Yes	No

One final point: if you, like me, see the value in the interaction effect, you merely substitute the benchmark sector weight for the portfolio sector weight in the selection effect, and use the geometric equivalent of the arithmetic interaction effect:

$$Interaction_G = \left(w_{Pi} - w_{Bi}\right) \times \left(\frac{\left(1+r_{Pi}\right)}{\left(1+r_{Bi}\right)} - 1\right) \times \left(\frac{1+r_{Bi}}{1+R_S}\right)$$

I.e., the difference in weights times the difference in returns. But note that we must include Carl's smoothing factor.

RISK *week*

NOVEMBER 12-16, 2012

*An online
conference event*

AGENDA

**A Framework for Risk
Management of Hedge Funds**
John Longo, Ph.D., CFA
Rutgers University

Risk Adjusted Measures
John D. Simpson, CIPM
The Spaulding Group

Value at Risk
Ben Sopranzetti, Ph.D., CPA
Rutgers University

A Client's Perspective on Risk
Stephen Campisi, CFA
US Trust

Risk Attribution
Philippe Gregoire, Ph.D.
Orfival

THE SPAULDING GROUP'S 2012 INVESTMENT PERFORMANCE MEASUREMENT CALENDAR OF EVENTS

DATE	EVENT	LOCATION
September 18-19, 2012	Fundamentals of Performance Measurement Training	Boston, MA (USA)
October 23-24, 2012	Fundamentals of Performance Measurement Training	Chicago, IL (USA)
October 25-26, 2012	Performance Measurement Attribution Training	Chicago, IL (USA)
November 8-9, 2012	Performance Measurement Forum	Istanbul, Turkey
November 12-16, 2012	Risk Week – An Online Conference Event	
November 29-30, 2012	Performance Measurement Forum	San Francisco, CA (USA)
December 4-5, 2012	Fundamentals of Performance Measurement Training	New Brunswick, NJ (USA)
December 6-7, 2012	Performance Measurement Attribution Training	New Brunswick, NJ (USA)

For additional information on any of our 2012 events, please contact Christopher Spaulding at 732-873-5700

2012 GIPS SURVEY

THE SPAULDING GROUP TO SURVEY INDUSTRY ON THE GLOBAL INVESTMENT PERFORMANCE STANDARDS (GIPS®)

8th Time Presentation Standards Have Been Surveyed

The Spaulding Group, Inc. (TSG - www.SpauldingGrp.com) announced today that for the eighth time since 1993, it will address the topic of the performance presentation standards (specifically, the Global Investment Performance Standards (GIPS)) in their next survey. The survey will solicit responses from asset management firms throughout the world. These results will form the basis of a detailed analysis, as well as provide a comparison with prior versions of the survey, to allow us to analyze trends and global recognition of these standards. Three firms have signed on so far to lend their support to the research effort: BI-SAM Technologies, DST Global Solutions and SS&C.

"The Global Investment Standards have succeeded on a worldwide scale unlike any other industry standard before it," said Patrick W. Fowler, COO. "They have changed the way asset managers, especially institutional, present their performance to prospective clients. Our goal is to continue our regular monitoring of the Standards' acceptance, to discover what, if any, changes have occurred, as well as determine how they've been implemented across the globe."

Survey participants will receive complimentary copies of the survey results. All sub-scribers to *The Journal of Performance Measurement*® will receive a synopsis of the results in an upcoming issue. It is TSG's policy to ensure confidentiality; participant details will not be shared with cosponsors or other parties. Surveys will be emailed this month. Firms can participate by visiting our website (www.SpauldingGrp.com) and clicking on the GIPS Survey button.

TRAINING...

Gain the Critical Knowledge Needed for Performance Measurement and Performance Attribution

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FUNDAMENTALS OF PERFORMANCE MEASUREMENT

A unique introduction to Performance Measurement specially designed for those individuals who require a solid grounding in all aspects of performance measurement. The Spaulding Group, Inc. invites you to attend Fundamentals of Performance Measurement on these dates:

September 18-19, 2012 – Boston, MA   December 4-5, 2012 – New Brunswick, NJ
October 23-24, 2012 – Chicago, IL

15 CPE & 12 PD Credits upon course completion

The Spaulding Group is registered with CFA Institute as an Approved Provider of professional development programs. This program is eligible for 12 PD credit hours as granted by CFA Institute.

PERFORMANCE MEASUREMENT ATTRIBUTION

Two full days devoted to this increasingly important topic. The Spaulding Group, Inc. invites you to attend Performance Measurement Attribution on these dates:

October 25-26, 2012 – Chicago, IL   December 6-7, 2012 – New Brunswick, NJ

15 CPE & 12 PD Credits upon course completion

The Spaulding Group is registered with CFA Institute as an Approved Provider of professional development programs. This program is eligible for 12 PD credit hours as granted by CFA Institute.

IN-HOUSE TRAINING

The Spaulding Group has offered in-house training to our clients since 1995. Beginning in 1998, we formalized our training, first with our Introduction to Performance Measurement class and later with our Performance Measurement Attribution class. We now also offer training for the CIPM program. To date, close to 3,000 individuals have participated in our training programs, with numbers increasing monthly.

We were quite pleased when so many firms asked us to continue to provide in-house training. This saves our clients the cost of transporting their staff to our training location and limits their time away from the office. With the discounted tuition for in-house training, it saves them even more! We can teach the same class we conduct to the general market, or we can develop a class that's suited specifically to meet your needs.

The two-day introductory class is based on David Spaulding's book, Measuring Investment Performance (McGraw-Hill, 1997). The attribution class draws from David's second book Investment Performance Attribution (McGraw-Hill, 2003).

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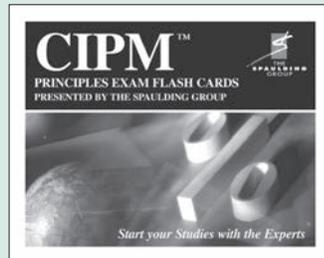
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