# Performance Perspectives

## with Dave Spaulding

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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, we focus on the money management industry.

Our involvement with the industry isn't limited to consulting. We're actively involved as members of the Association for Investment Management & Research (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 CSpaulding@SpauldingGrp.com.

**http://www.SpauldingGrp.com**

**Clarifying the differences**

I don't know about you, but at times I've been confused about the differences between the IRR, BAI, and Modified BAI. Because I have the benefit of teaching a class on performance measurement and often get involved with various writing projects, I decided to reflect on the differences and attempt to make the differences as clear as possible. In this newsletter, I am presenting this information for the first time. I hope you find it of interest.

To start off with, the IRR is a *money-weighted* (or dollar-weighted) rate of return, while the BAI and Modified BAI are *time-weighted*. But the differences can be made much clearer.

I created a diagram (see Page 2) as a way to try to demonstrate the differences. The squares at each end represent the two end points for our measurement period (inception date and most recent ending or reporting period). The triangles represent month-end points, and the circles show cash flows.

*The Internal Rate of Return*

We'll begin with the Internal Rate of Return. The IRR formula is:

$$\frac{EMV}{(1+R)^T} + \left( \sum_{t=1}^{T-1} \frac{-C_t}{(1+R)^t} \right) - BMV = 0$$

As mentioned above, the IRR is a money-weighted return. As you can see from the graphic, with this method (represented by the red lines), we value the portfolio at only two points: the inception and the ending point. The cash flows that occur are included in the formula, based on when they occurred.  The IRR is based on the *time value of money* or *present value* formula. The return (R) is found through an iterative process (trial-and-error).

The GIPS® standards have provisions which address private equity and venture capital (see www.cfainstitute.org/standards/pdf/venture_capital.pdf). Because in this market, the manager controls the cash flows, a *money-weighted* return is required. These standards (which go into effect 1 January 2006) require *since inception IRR*.  That's what we show here.

*BAI Method*

The BAI (Bank Administration Institute) actually came up with a couple ways to calculate a time-weighted rate of return. The one I'm most familiar with is the *linked internal rate of return*. With this method, we calculate multiple IRRs, over variable time periods, depending upon the timing of cash flows. Whenever a cash flow occurs, we revalue the portfolio and calculate a return using the IRR from the previous valuation point to that one. These individual returns are then linked, to create a return that spans the entire period.

The blue line in the graphic represents this method.

The return we get with this method is a *true, exact time-weighted rate of return*.

*Modified BAI Method*

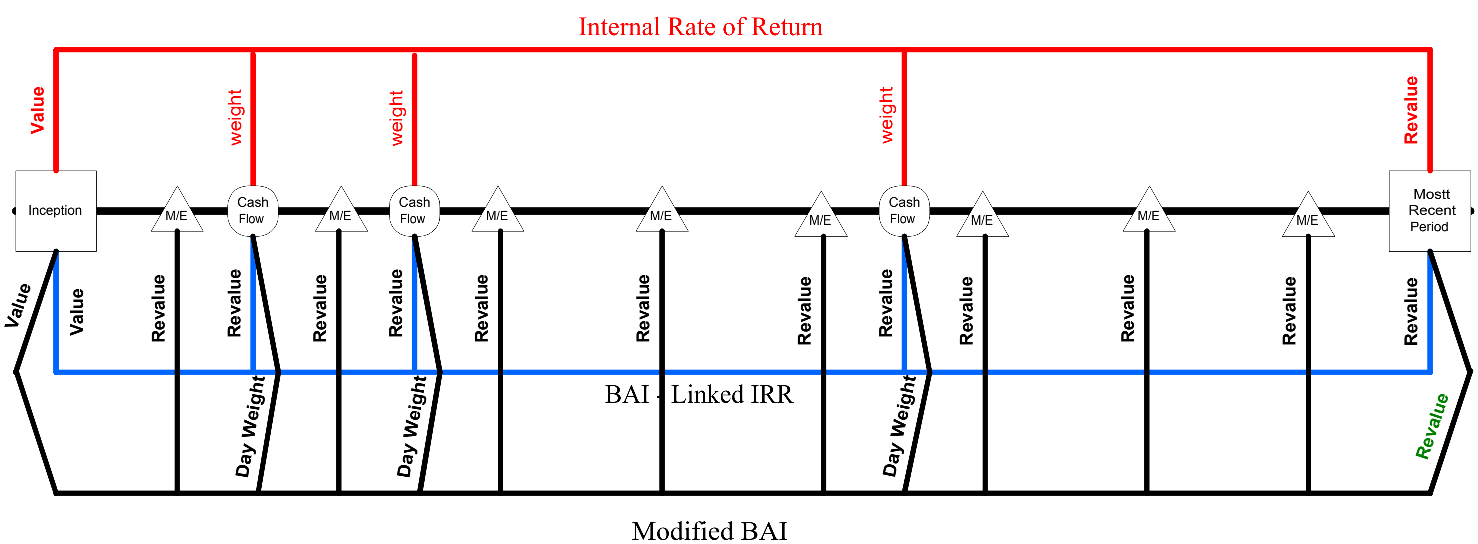
The Modified BAI formula is:

$$EMV - BMV \times (1+R) - \sum_{i-1}^{n} C_i \times (1+R)^{W_i} = 0$$

I credit AIMR (now the CFA Institute) for coming up with the Modified BAI Method (if you know of another source, please let us know). With this approach, we calculate multiple IRRs, but on a set and regular basis; for example, quarterly or monthly. These IRRs are linked to span a broader (e.g., year) period. The cash flows are weighted, just like they are in the Modified Dietz formula (note the "$W_i$"; it's the same as we use in the Modified Dietz).

$$R = \frac{EMV - BMV - \sum_{i=1}^{n} C_i}{BMV + \sum_{i=1}^{n} W_i \times C_i}$$

We represent this method with the black lines in our graphic. As you can see, revalue at month-ends, and day-weight the cash flows.




*Summary*

So, there you have it:

- Internal Rate of Return – money-weighted; revalue at the two end points
- BAI – true time-weighted; revalue for every cash flow
- Modified BAI – approximation to the true time-weighted; revalue monthly or quarterly, time-weight the cash flows.

I hope this is clear. If not, please let me know.

**Keep those cards and letters coming**

Actually, I'm speaking of communicating to the CFA Institute (formerly, the Association for Investment Management and Research) about "Gold" GIPS. I find it a bit hard to believe that after almost two months of being open to the public, that there has been only one (your humble servant) who has voiced an opinion! How come? We're now getting into the summer months, and it's important that you take some time and review what these proposed changes mean. These changes are, in some cases, huge!

Perhaps this is a case of *déjà vu all over again*.[1] When the proposed standards for leverage and derivatives were introduced, my comments (along with someone named "anonymous") were the only ones on the AIMR website, until about a month before the deadline. Then, all of a sudden, AIMR was inundated with e-mails.

I'm aware that some groups are working on responses. But individuals are encouraged to comment, too. So please, take some time, review the changes (you can get a copy on the AIMR website or by visiting www.spauldinggrp.com/GoldGIPSwithhighlights.pdf).

Remember, you can't complain about a change if you didn't take the time to comment on them.

**TSG Update**

We thought we'd update you on some of our activities, I should mention that we have a new addition to our firm: Jaime Fowler. No, it's not Patrick's wife,... it's his sister. Jaime went to high school with my older son, Christopher. A graduate of Rutgers University with a degree in communications, we felt that she was an ideal fit for our group. She will be working with Patrick on event planning.

And speaking of event planning, we have a few events coming up. We're doing our first "webex" conference call on July 7th, at 9AM US-EST. We will spend a couple hours addressing "Gold" GIPS. This is a critically important topic and we're trying to make as many people as possible aware of what it is and how it might affect their firms. If you'd like to join in, please contact Patrick Fowler (PFowler@SpauldingGrp.com).

Based on the success of our second PMAR™ conference, we decided to add a new event – a one-day symposium. This year's event will be October 27th in New York and will focus on Fixed Income Attribution. We've already signed up two cosponsors (Wilshire and StatPro) and are expecting additional firms to join in.


We're finalizing speakers and topics. I want to emphasize that this event will be 100% dealing with the very important topic of fixed income attribution. If fixed income attribution is important to you and your firm, we believe this event is one you'll want to participate in. Again, please contact Patrick Fowler (PFowler@SpauldingGrp.com) for more information.

[1] In the States, we refer to this line as a "Yogi-ism," for former NY Yankee's baseball great and hall of fame catcher, Yogi Berra, who supposedly made this statement, as well as others, such as "no one goes to Atlantic City anymore,... it's too crowded."

This newsletter is produced by TSG Publications. It is written and edited by Dave Spaulding. The opinions expressed are his and are a result of his own industry experience.

# UPCOMING TRAINING DATES

## INTRODUCTION TO PERFORMANCE MEASUREMENT

| LOCATION | DATES |
|---|---|
| Cape Town, ZA | July 19 - 20, 2004 |
| New York, NY | September 20 - 21, 2004 |
| Boston, MA | October 4 - 5, 2004 |
| Los Angeles, CA | October 18 - 19, 2004 |

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## PERFORMANCE MEASUREMENT ATTRIBUTION

| LOCATION | DATES |
|---|---|
| Cape Town, ZA | July 21 - 22, 2004 |
| New York, NY | September 22 - 23, 2004 |
| Boston, MA | October 6 - 7, 2004 |
| Los Angeles, CA | October 20 - 21, 2004 |

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## Gold GIPS®

| LOCATION | DATES |
|---|---|
| Cape Town, ZA | July 23, 2004 |

These programs may qualify for CFA Institute Professional Development Program credit. If you are an CFAI member, please refer to the CFAI Web site to determine whether this program meets the criteria for CFAI PDP credit, to calculate credit hours, and to verify documentation requirements. (www.aimr.org/memservices/continuinged/ceprogram)

# Gold GIPS Web Conference

**July 7, 2004**

Contact PFowler@SpauldingGrp.com for details.

# 2004
# Performance Measurement Forum Schedule

| | |
|---|---|
| **Edinburgh, Scotland** | **June 9 - 10, 2004** |
| **Madrid, Spain** | **November 10 - 11, 2004** |
| **Orlando, FL** | **December 9 - 10, 2004** |