

PERFORMANCE PERSPECTIVES

with David Spaulding



VOLUME 4 – ISSUE 6

FEBRUARY 2007

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 CSpaulding@SpauldingGrp.com

GETTING TO KNOW M-SQUARED A BIT BETTER

I want to begin by thanking Leah Modigliani and Bruce Feibel for their invaluable assistance with this brief piece on the risk-adjusted formula, M-squared. I also want to point out a couple other key points:

- I am a big fan of this risk-adjusted formula
- In no way can I do this formula complete justice in but a few pages, so please consider this to be simply an introduction to a much longer presentation which will appear in an article in an upcoming issue of *The Journal of Performance Measurement*[®]

I have come to realize that we can probably summarize what the CIPM^{™1} program provides in three ways:

- 1) the opportunity to (really) learn things that we previously knew about but didn't bother to know in as much detail as perhaps we should have
- 2) an introduction to formulas and concepts we never heard of before
- 3) the chance to find new ways to calculate formulas that perhaps we were already familiar with.

M-squared is an example of the third item. Previously, I was familiar with the method as provided in Bruce's book, *Investment Performance Measurement*,² I found the formula, as presented in the CIPM program, to be slightly different. And so, in my earlier draft for this piece, I contrasted the two approaches. However, when I passed this draft by Leah and Bruce they both responded with comments that caused me to pause and reflect further on this. What I will do now is provide you with the approach as Leah described it to me (please refer to Table 1).

It probably helps to point out that the formula for M-squared, using Sharpe Ratio as our risk measure,³ is:

$$M^2 = \left[\left(\frac{R - R_f}{\sigma R} \right) \times \sigma \bar{R} \right] + R_f$$

where:

R = Portfolio Return

\bar{R} = Index Return

R_f = Risk Free Return

σR = Standard Deviation of Portfolio Return

$\sigma \bar{R}$ = Standard Deviation of Index Return.

1 The CFA Institute's Certificate in Investment Performance Measurement program.

2 I won't describe Bruce's approach here, but will in the upcoming article.

3 Some think that M-squared is only calculated using the Sharpe Ratio; this is untrue, as we will discuss in the upcoming article.

The Journal of Performance Measurement®:

UPCOMING ARTICLES

Single Currency Return Attribution

– *Bob Kopprasch, Ph.D.,
Gijs Treimanis*

Morningstar® Investor Return: Capturing the Collective Investor Experience

– *Catherine Sanders,
Julie Austin, CFA, and
Michelle Swartzentruber*

Fixed Income Attribution with Minimum Raw Material

– *Andrew Colin, Ph.D.*

Risk-Adjusted Performance Attribution Based on the Information Ratio

– *Jose Menchero, Ph.D., CFA*

Fixed Income Attribution: A Unified Framework Part 2

– *Bernard Murira, CFA and
Hector Sierra, Ph.D., CFA*

The Journal Interview

– *Todd Juillerat, CFA, Invesco*

Our table shows 13 months of returns for a portfolio (Rp1), the index (Rm), and the risk free rate (Rf).⁴ We begin by calculating the standard deviations for the portfolio and index (circle #1).

With M-squared we are creating a “risk-equivalent version” of our portfolio. In our example, the portfolio has more risk than the index (as measured by standard deviation); therefore, the return has to be “levered down.” We can accomplish this by, for example, putting more cash in until it matches the standard deviation of the index. But how much cash? We determine this by calculating the ratio of the benchmark’s standard deviation to the portfolio’s standard deviation. This tells us how much should be in our original portfolio.

$$\text{HowMuchInOriginalPortfolio} = \frac{\overline{\sigma r_i}}{\sigma r_i}$$

We next calculate how much should be in cash; this is one minus the above ratio:

$$\text{HowMuchInCash} = 1 - \frac{\overline{\sigma r_i}}{\sigma r_i}$$

(Please refer to circle #2 for these values).

Circle #3 shows the application of the M-squared formula on a monthly basis. The math is as follows:⁵

$$\left(\frac{\overline{\sigma r_i}}{\sigma r_i}\right) \times r_i + \left[1 - \left(\frac{\overline{\sigma r_i}}{\sigma r_i}\right)\right] \times r_f$$

We geometrically link these formulas; I’ve annualized the result because it’s for a 13-month period (see circle #4). Our risk-adjusted return is 27.73 percent. Circle #5 shows the annualized returns for the index (25.60%) and portfolio (30.90%).

Now, why do I love this formula? Because it presents the risk-adjusted return in a much more intuitive fashion than other risk measures. I would suggest that we could show the returns in a report as follows:

Portfolio Return	30.90%
Index Return	25.60%
Risk-adjusted Return (M2)	27.73%

⁴ I used an example from Bruce’s book (see page 190).

⁵ You may need to call upon your high school algebra to see how this is equivalent to the M-squared formula shown above.

The Spaulding Group (TSG) can address any of these common problem areas

Types of Assignments

General Performance Measurement Issues

TSG assists firms in evaluating the broader areas of performance to include calculations (which to use and when), reporting (for internal use, for prospects, and for clients), systems issues, and other areas.

Verification/Certification

We also offer GIPS® verification, and if you are not claiming compliance but need your numbers certified, we can assist with that as well.

GIPS Compliance

Many firms need assistance understanding the GIPS standards and determining whether they should comply. Also, many need help developing a strategy to become compliant or remain compliant. Often, in just a day or two, TSG can help you address the opportunities, benefits, and tasks to be tackled in order to comply.

System Design

TSG can support you in the design and development of your performance system. We can also assist in documentation and testing.

Software Searches

TSG can help you decide which software product best meets your firm's needs, and we also support the implementation process.

Operational/Control Issues

TSG can assist you in dealing with a host of operational challenges including data integrity, reconciliation, policies and procedures, and much more.

I think that this presentation says quite a bit: while we outperformed the index by 5.30% (30.90 - 25.60), when adjusting for the additional risk we took, our return has dropped to 27.73 percent. However, we still outperform the index, suggesting that our manager was able to generate more return for the risk he or she took versus the index.

If M-squared isn't in your arsenal of returns, I suggest you add it!

Month	Returns			For geometric calculations				Risk Equivalent Version of P1			
	Rp1	Rm	Rf	Rp1		Rm		RiskEqP1			
								%PIRF	88%	12%	
1	7.00	5.76	0.43	1.0700	1.0700	1. 6	10876	2	6.23	1.0623	1.0623
2	5.00	4.18	0.46	1.0500	1.1235	1. 8	10418	3	4.46	1.0446	1.1097
3	-4.00	-3.11	0.47	0.9600	1.0786	0. 9	10675		-3.47	0.9653	1.0711
4	4.50	4.00	0.44	1.0450	1.1271	1. 0	10402		4.02	1.0402	1.1142
5	4.00	3.87	0.41	1.0400	1.1722	1. 7	10662		3.58	1.0358	1.1541
6	-3.00	-2.36	0.36	0.9700	1.1370	0. 4	10726		-2.60	0.9740	1.1240
7	8.00	5.55	0.39	1.0800	1.2280	1. 5	10685		7.10	1.0710	1.2039
8	0.10	-3.12	0.36	1.0010	1.2292	0. 8	10664		0.13	1.0013	1.2054
9	1.00	-0.50	0.38	1.0100	1.2415	0.9950	1.1456		0.93	1.0093	1.2166
10	-5.00	-2.74	0.41	0.9500	1.1794	0. 6	10724		-4.36	0.9564	1.1635
11	2.00	6.33	0.48	1.0200	1.2030	1. 3	10694		1.82	1.0182	1.1847
12	4.00	2.03	0.44	1.0400	1.2511	1. 3	10208		3.58	1.0358	1.2271
13	7.00	5.89	0.46	1.0700	1.3387	1. 9	10280		6.23	1.0623	1.3036
Geomean (annualized)				0.3090		0.2560		0.2773			
Annualized Returns				30.90		25.60		27.73			
Avg	2.35	1.98	0.42								
Stdev (s)	4.3	3.8	0.0								
1											
Average Annual Geometric Returns											
Portfolio1				30.90							
Index				25.60							
RiskAdjPortfolio1 (M ²)				27.73							

Table 1

MORE ON GIPS 2010

We received some comments regarding last month's issue, specifically regarding my opining on the subject of mandatory verification. But that's not all I'm concerned with. As you'll see from one of the letters we received, there's more that is worthy of comment.

For example, the planned requirement to "value portfolios on the date of all large external cash flows." Will this work for all areas? All security types?

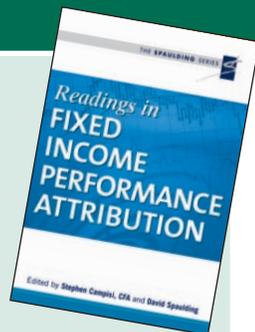
As you may recall, the original plan was to require valuation for all cash flows. Fortunately, we got this amended. But is it realistic to expect all securities to be priced on a daily basis?

The standards already make special provisions for private equity and real estate.⁶ But there are no special provisions within fixed income or equities, even though the quality of prices for some is highly questionable.

6 See paragraph II.1.2.A.2.b. of the 2005 edition of GIPS.

7 Briefly: annual valuation for both; quarterly for Real Estate mandated 2008 and recommended for private equity. If you manage either of these you need to look at the specifics plus the host of additional disclosures that are required.

Readings in Fixed Income Performance Attribution



Special Pre-Release Offer! Now Until March 16th!

The long-awaited release of The Spaulding Series' latest book titled Readings in Fixed Income Performance Attribution is near and we are celebrating by offering you a special pre-release discount!

The book is scheduled to be delivered to us on March 16th. So from now until that date, you can save on all pre-orders of the book. The list price of the book is \$95, but with this special offer you can purchase it for the discounted price of \$50. Please don't delay, order your pre-release copy today!

Readings in Fixed Income Performance Attribution

Edited by Stephen Campisi, CFA and David Spaulding, CIPM

Excerpt from the book cover:

"What makes fixed income performance attribution such a hot topic? Is it the importance of the asset class? The bond market dominates the stock market, in terms of both investment capital and the number of issues in the market. Unlike stocks, which are only issued by public companies, bonds are issued by both public and private companies, as well as by all sectors of the government: federal, state, and local. And, as one of our authors mentions, bonds are born and they die (actually they mature with the passage of time – as the old joke goes, this is true for bonds but not for bond portfolio managers!). Therefore, the bond market is a dynamic one, with a new issue market that is much more active than the stock market..."

Visit our web store today
<http://www.spgshop.com/>
to order your advanced copy
at the discounted rate!

While this might be viewed as a valid point, we believe that the planned change is warranted because of the need to improve the accuracy of returns. Perhaps a slight change might be warranted, allowing firms that are unable to reprice for large flows to continue to use the Modified Dietz or Modified BAI formulas.

This would, I believe, require a disclosure to explain why this isn't possible. It would then be up to the verifier or prospect to decide if this exception is warranted. The desire to avoid the cost for daily pricing would not be a valid reason.

Your thoughts?

As for mandatory verification, we have surveyed the industry multiple times on this issue and continue to find most performance measurement professionals in opposition. Here are summary statistics from three surveys:

#1 - Performance Measurement Forum Members

We surveyed the members of The Performance Measurement Forum recently and received the following:

Total # who responded: 27 (note: 2 people, one from the U.S. and one from Japan) said "not sure." We didn't include these in our statistics).

Overall responses:

Favor mandatory verification9 (33%)
Oppose mandatory verification.....18 (67%)

North America Members:

Favor mandatory verification5 (31%)
Oppose mandatory verification11 (69%)

Europe

Favor mandatory verification4 (36%)
Oppose mandatory verification.....7 (64%)

#2 - 2005 GIPS Survey

In 2005 we surveyed the industry on various aspects of the standards and included a question on mandatory verification. Here are the results:

From 2005 PPS survey

	North America	Europe	South Africa	Far East/Australia	Total
Total	60	31	5	2	98
Favor	33%	77%	40%	0%	47%
Oppose	67%	23%	60%	100%	53%

PARM Asia Pacific 2007

28th – 30th March 2007
Sydney Marriott Hotel

www.iir.com.au/parm

A comprehensive review of the latest best practice and methodologies in performance, attribution, risk and measurement

Attend this leading event and:

- Compare and contrast different risk models
- Define the GIPS standard and assess the importance of being compliant
- Implement the latest Value at Risk practice
- Add value to your portfolio with fixed income attribution,
- Learn from some of the mistakes of performance and risk analysts
- Assess the performance and risk profiles of hedge funds

Featuring Presentations from Eminent Speakers:

- Jerome Chung GIPS Committee HKSFA
- Ivan Kaverzine Portfolio Manager Voyager Funds Management
- Simon Elimelakh Head of Quantitative Analysis BT Financial Group
- Alex Frino PhD Professor of Finance University of Sydney
- Dr Andrew Colin Director Statpro

...and many more

TO REGISTER CALL NOW!

Tel: 02 9080 4090

Fax: 02 9299 3109

Email: info@iir.com.au

www.iir.com.au/parm

#3 - 2002 GIPS survey

We also surveyed the industry in 2002 and asked about mandatory verification; the results at the total level:

Total 2002 survey

Total — 113

Favor — 55%

Oppose — 45%

Summary

In 2002 we found more people favoring mandatory verification than opposing it, although there were a large number (45%) who stated opposition. Since then our surveys have consistently found opposition, with our most recent survey of forum members showing the greatest level of opposition.

We are also aware that the majority of responses to Gold GIPS opposed mandatory verification. This of course raises the clear and obvious question: “why are we bothering to consider mandatory verification given the overwhelming opposition?”

We hope this information is helpful.

PMAR V...SHAPING UP TO BE QUITE AN EVENT!

About six years ago we decided to offer our own conference and came up with the acronym “PMAR” (Performance Measurement, Attribution and Risk). It wasn’t long before we saw other conference promoters adopt similar names for their conferences, with the same letters but, fortunately, in different orders.

Perhaps because we’re not a *conference company* offering a *performance measurement conference*, but rather a *performance measurement company* that’s hosting a *performance measurement conference*, we have many advantages over other event sponsors, such as: we know the hot topics, because we’re *in the thick of it* on a regular basis, we know the experts on the subject matter, and we know who the best speakers are. We’ve also been quite creative in how we put our conferences together, offering such sessions as our “Battle Royale” and “Pardon the Interruption.”

This year will be our fifth annual conference, and probably because of our decimal number system, we tend to view events with “5” or “0” in their number as extra special. And, we’re seeing this already as our registration numbers are running more than double what they were last year.

Each year we’ve had more than 100 attendees, and we’re expecting to set a record this year in attendance.

We also tend to have more exhibitors than most other conferences, which we believe speaks to the quality of our event as well as the special treatment we afford our cosponsors.

If you’d like to learn more about PMAR V, please visit <http://www.spauldinggrp.com/pmarconf/>.

FROM OUR READERS...

Love the Performance Perspective articles that I get each month. They always add insight and understanding to performance issues that come up. The question that I have is, have you ever covered or considered covering in the Performance Perspectives the topic of Options and what to do when calculating performance for a portfolio that has an Options strategy as part of its investment solution?

Jason Haigh

*Manager, Performance Measurement / GPB IM
Capital Markets & Securities Operations
RBC Dominion Securities, Inc.*

This is a great idea and we will comment on options in a future issue. We have a slight backlog of topics we want to address, but will include this ASAP!

Hi, Dave. As usual, I enjoyed your newsletter. And I did notice the new picture, even before seeing your comment about it. I believe your new tagline is perfectly appropriate for your firm also.

FYI, regarding GIPS 2010 I did some research (as a follow-up to our interview/discussion two weeks ago), and then noted your inclusion of a reference to the same question. The general plan, certainly subject to modest variance, is to have the EC vote/approve "GIPS 2010" during its in-person meeting in late 2009. The new standards would then be in force at that time, with the industry then having a year to adopt them. The standards would be fully in effect, and performance presentations would need to adhere to them, 1/1/2011.

I hope this makes sense to you. This information was included as part of the GIPS EC open session meeting on December 1, 2006, and is thus a matter of public record. Please see the links below if you desire more details, or of course feel free to contact me.

Timeline: http://www.cfainstitute.org/centre/ips/ec/2006dec/pdf/item9_timeline.pdf

Roadmap: http://www.cfainstitute.org/centre/ips/ec/2006dec/pdf/item9_roadmap.pdf

I also look forward to learning more about Morningstar's work and analysis relating to MWRR. I'll be taking my copy of "The Journal" which arrived earlier this week on my trip to London next week!

Kind regards,

Todd

*L. Todd Juillerat, CFA
Global Head of Performance Measurement
INVESCO*

We appreciate Todd providing some clarity on the plans for the 2010 version.

As usual, great coverage on the issues.



KEEP THOSE CARDS & LETTERS COMING

We appreciate the occasional e-mail we get regarding our newsletter. Occasionally, we hear positive feedback while at other times, we hear opposition to what we suggest. That's fine. We can take it. And more important, we encourage the dialogue. We see this newsletter as one way to communicate ideas and want to hear your thoughts.

One GIPS 2010 item you might want to talk about more is re-valuing on every significant (an undefined term) cash flow by 01jan2010.

I feel this gets overlooked; even by non-mutual fund shops. Basically the question is "Is each and every shop capable of valuing portfolios every business day 35 months from now?"

This looms as large as Y2K did for computing and it appears the industry is choosing to focus on it as it did Y2K - that is we'll pick it up actively with only 3-6 months to go.

Thanks..

We appreciate this reader bringing this issue to our attention. As you saw earlier, we're already beginning to address this and hope that the EC takes this into consideration, too.



THE SPAULDING GROUP'S 2007 INVESTMENT PERFORMANCE MEASUREMENT CALENDAR OF EVENTS

DATE	EVENT	LOCATION
March 5-6	CIPM Principles Exam Preparation	New Brunswick, NJ (USA)
March 7-9	CIPM Expert Exam Preparation	New Brunswick, NJ (USA)
March 12-13	Introduction to Performance Measurement Training	Boston, MA (USA)
April 16-17	Introduction to Performance Measurement Training	San Francisco, CA (USA)
April 18-19	Performance Measurement Attribution Training	San Francisco, CA (USA)
April 26-27	Performance Measurement Forum	New Orleans, LA (USA)
May 8-9	Introduction to Performance Measurement Training	Chicago, IL (USA)
May 10-11	Performance Measurement Attribution Training	Chicago, IL (USA)
May 15-16	PMAR Conference	Philadelphia, PA (USA)
June 4-5	Advanced Performance Measurement Training	New Brunswick, NJ (USA)
June 14-15	Performance Measurement Forum	Helsinki, Finland
July 16-20	Investment Performance Measurement Boot Camp	New Brunswick, NJ (USA)
August 20-21	CIPM Principles Exam Preparation	Boston, MA (USA)
August 22-24	CIPM Expert Exam Preparation	Boston, MA (USA)
August 27-28	CIPM Principles Exam Preparation	Los Angeles, CA (USA)
August 29-31	CIPM Expert Exam Preparation	Los Angeles, CA (USA)
September 17-18	Introduction to Performance Measurement Training	Los Angeles, CA (USA)
September 25-26	Introduction to Performance Measurement Training	Chicago, IL (USA)
September 27-28	Performance Measurement Attribution Training	Chicago, IL (USA)
October 8-9	Introduction to Performance Measurement Training	Boston, MA (USA)
October 10-11	Performance Measurement Attribution Training	Boston, MA (USA)
October 15-16	Advanced Performance Measurement Training	San Francisco, CA (USA)
November 8-9	Performance Measurement Forum	Athens, Greece
November 29-30	Performance Measurement Forum	Orlando, FL (USA)
December 3-4	Introduction to Performance Measurement Training	New Brunswick, NJ (USA)
December 5-6	Performance Measurement Attribution Training	New Brunswick, NJ (USA)

*For Additional information on any of our 2007 events,
please contact Christopher Spaulding at 732-873-5700*

Register Today!

*The Journal of Performance Measurement®
Fifth Annual International*

PMAR

Performance Measurement,
Attribution & Risk

Conference

May 15th - 16th, 2007

TRAINING...

Gain the Critical Knowledge Needed for Performance Measurement and Performance Attribution

TO REGISTER:

Phone: 1-732-873-5700

Fax: 1-732-873-3997

E-mail: info@SpauldingGrp.com



The Spaulding Group, Inc. is registered with the National Association of State Boards of Accountancy (NASBA) as a sponsor of continuing professional education on the National Registry of CPE Sponsors. State boards of accountancy have final authority on the acceptance of individual courses for CPE credit. Complaints regarding registered sponsors may be addressed to the National Registry of CPE Sponsors, 150 Fourth Avenue North, Suite 700, Nashville, TN 37219-2417. www.nasba.org

INTRODUCTION TO 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 Introduction to Performance Measurement on these dates:

- March 12-13, 2007 – Boston, MA
- April 16-17, 2007 – San Francisco, CA
- May 8-9, 2007 – Chicago, IL
- September 17-18, 2007 – Los Angeles, CA
- September 25-26, 2007 – Chicago, IL
- October 8-9, 2007 – Boston, MA
- December 3-4, 2007 – 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.



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:

- April 18-19, 2007 – San Francisco, CA
- May 10-11, 2007 – Chicago, IL
- September 27-28, 2007 – Chicago, IL
- October 10-11, 2007 – Boston, MA
- December 5-6, 2007 – 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 10 PD credit hours as granted by CFA Institute.



ADVANCE PERFORMANCE MEASUREMENT

- June 4-5, 2007 – New Brunswick, NJ
- October 15-16, 2007 – San Francisco, CA

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, over 1,500 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 transporting their staff to our training location and limits their time away from the office. And, because we discount the 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). The two-day Advanced Performance Measurement Class combines elements from both classes and expands on them.