

PERFORMANCE PERSPECTIVES

with David 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, 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



ISN'T IT FINALLY TIME FOR YOU TO TAKE THE CIPM EXAM?

The CFA Institute has made a huge commitment in our segment of the industry by creating, maintaining and administering the Certificate in Investment Performance Measurement Program. I am always excited when I see folks, both senior as well as relatively new, with the CIPM designation. But I'm also disappointed that more haven't taken advantage of this opportunity.

To me, there are two major reasons to do so:

- 1) For what it will do for you. The reality is that many fields have developed professional certifications. Clearly, there's a recognition that there is value in being "certified." The "CIPM" gives unbiased testimony to your skills and knowledge in the areas of performance and risk measurement. It says to your colleagues, your employer, as well as anyone else you come in contact with, that *you know your stuff!*
- 2) For what it will do for our segment of the industry. For those of us who have been in the industry for 20 years or longer, we've seen how the role of performance and risk measurement has grown into a highly respected and valued part of the world of investing. All areas of investment management have incorporated performance reporting. The CIPM program is one way to give further credibility to the important role we play.

I'll confess a degree of frustration and disappointment that more senior level performance measurement folks haven't pursued the exam. Granted, many have built up a "resume" and reputation that speaks quite loudly that they have skills and experience. However, by pursuing the exam they will *set an example* for others, and further add to the importance suggestive of the program. I know I'll leave a lot of folks off, but will briefly list just a few of the senior investment professionals I know who have achieved this certification:

- Carl Bacon
- Douglas Lempereur
- Neil Riddles
- Debi Deyo Rossi
- Sandra Hahn Colbert
- Annie Lo
- Ann Putalaz
- John Simpson
- Jed Schneider
- Tim Ryan
- Gerard van Breukelen

<http://www.SpauldingGrp.com>

The Journal of Performance Measurement®

UPCOMING ARTICLES

Design Consideration for Performance Presentations

– Timothy P. Ryan

Decomposition of Emerging Market Currency Risk

– G. Francis, E. Musli & T. Cella

The Journal Interview

– Joseph McDonagh, CFA

Choosing the Right Solution of IRR Equation to Measure Investment Success

– Y. Shestopaloff, A. Shestopaloff

The GIPS Standards & Asset Owners

– David Spaulding

NONE of these folks HAD TO get this designation. Each one had already established themselves as knowledgeable and experienced investment performance professionals. But they invested the time to accomplish this objective. While I can't speak for any of them, I suspect that many did so, not so much for themselves, but for the industry.

The CFA Institute spent a great deal of time analyzing and revising the program, to make it even better. Isn't it time YOU took it?

The next exam period is in April, but you only have until January 31 to register. Go to <http://tinyurl.com/ps2vyky> to register.¹

Our firm offers training and study aids. To learn more, visit <http://tinyurl.com/kqnxv8w>.²

ORDER DEPENDENCY IN ATTRIBUTION LINKING

In much of what we do there are no rules. Performance attribution is just one example. Granted, I *declared* some rules in my earlier writings:

- Rule #1: the model should adhere to the investment approach
- Rule #2: you should reconcile your attribution effects to the excess return (or total return, in the case of absolute attribution (contribution))
- Rule #3: when you link across time periods, your linked attribution results should reconcile to your linked excess return (or linked total return for contribution).

I think most folks agree with all of these “rules.”

One criticism of arithmetic attribution is that it does not compound; that is, just like excess returns, you cannot apply the same compounding method to attribution effects and expect the math to work out: it doesn't! A “smoothing” agent is required.³

The first person to publish an article on attribution linking was David Cariño of Frank Russell.⁴ His article was followed a year later by one by Jose Menchero.⁵ Others have offered other approaches.

Order dependence vs. order independence

The subject of order dependence or independence deals with how one links the individual periods (e.g., January, February, March); whether it must be in date order or if it can vary (e.g., March, January, February). WHY one would want to do the math in any order but date isn't the issue; it's whether or not you can.

1 The actual address is rather long, so I shortened it. http://www.cfainstitute.org/programs/cipm/Pages/index.aspx?channel=email&emailtrackid=CIPMCand&inf_contact_key=099b231f20c0ef7f687b7f5413ce35a398a585e64c56b664132dae6f39952f63

2 Another long URL that I shortened a bit. <http://www.spauldinggrp.com/services/training/cipm-principles-a-expert-exam-preparation.html>.

3 While some proponents of geometric attribution use this as a reason to abandon arithmetic models, the reality is that while geometric effects do link cleanly across time, they require a “smoothing” agent within each time period in order for the math to work. It's kind of like “you can pay me now or pay me later”: both methods require smoothing.

4 Cariño, David. *The Journal of Performance Measurement*. “Combining Attribution Effects Over Time.” Summer 1999.

5 Menchero, Jose. *The Journal of Performance Measurement*. “An Optimized Approach to Linking Attribution Effects.” Fall 2000.

A FREE NEWSLETTER YOU SHOULD BE AWARE OF.

We wanted to share with you a free newsletter that we were recently introduced to from Alpha Partners. Please visit the link below to get on their distribution list for their *Excess Returns* newsletter.

[Alpha Partners](#) is an investment marketing firm specializing in research and presentation strategy. Alpha Partners helps investment firms build assets through the power of a strong story well told. With experience across asset classes and target markets, the firm has worked with hundreds of investment companies since its founding in 1995. Liz Hecht, Director of Research, publishes a monthly newsletter, [Excess Returns](#), with insights for investment marketing and sales professionals.

One author who spoke to the subject of order dependence is Andrew Frongello. He introduced his method in 2002⁶ and went so far as to suggest that order dependence should be a requirement of any linking method. Following a conversation he had with another model developer (David Cariño, PhD, CFA), he changed his view and altered his model,⁷ so that it's not order dependent.

I was recently asked to review a client's attribution approach and reporting. I discovered that their contribution linking method is order dependent. We'll begin with a simple example to demonstrate how it works (see Table 1).

Example 1		Period 1	Period 2	Linked Contribution
Contributions	Stock A	5.00%	6.00%	11.500%
	Stock B	5.00%	4.00%	9.500%
	Portfolio	10.00%	10.00%	21.000%
		Linked ROR =		21.000%

Note that the sum of the contributions to return for stocks A and B equals the total portfolio return of 10 for each period.

To compute the cumulative return of the portfolio over the two periods, geometrically link the individual period portfolio returns together, using the standard approach:

$$((1.10+1.10)-1) \times 100 = 21.00$$

The result is greater than the sum of the periods because the returns are compounded over time.

This principle is also applied when calculating contribution to return. If we simply add the contribution to return for A and B across the two periods, it will not work:

$$((5+6) + (5+4) \neq 21)$$

If we compound the individual contributions for A and B by **all subsequent total portfolio returns**, we assume that we reinvested any contribution from A and B at the subsequent portfolio rate(s) of return.

The compounded contribution to return for A is $(5 \times 1.10) + 6 = 11.5$ and the compounded contribution to return for B is $(5 + 1.10) + 4 = 9.5$. The sum of the two equals the linked return for the total portfolio of 21.

This is a rather simple example, so I came up with a couple more.

In Table 2, we successfully reconcile to the linked return (17.700%) in both cases. However, you'll also notice that these two examples are the same, with the exception that the periods are switched. As a result, we get different contribution effects.

Example 2	Alternative Example			Linked Contribution
		Period 1	Period 2	
Contributions	Stock C	5.00%	3.00%	8.350%
	Stock D	5.00%	4.00%	9.350%
	Portfolio	10.00%	7.00%	17.700%
		Linked ROR =		17.700%

Example 3	Alternative Example			Linked Contribution
		Period 1	Period 2	
Contributions	Stock E	3.00%	5.00%	8.300%
	Stock F	4.00%	5.00%	9.400%
	Portfolio	7.00%	10.00%	17.700%
		Linked ROR =		17.700%

Table 2

⁶ Frongello, Andrew. *The Journal of Performance Measurement*. "Linking Single Period Attribution Results." Spring 2002. See also Frongello, Andrew. *The Journal of Performance Measurement*. "Attribution Linking: Proofed and Clarified." Fall 2002.

⁷ Frongello, Andrew. *The Journal of Performance Measurement*. "The Recursive Family Dilemma." Winter 2002/2003.

KEEP THOSE CARDS & LETTERS COMING

We appreciate the emails we receive regarding our newsletter. Mostly, 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.

I extended this to three periods, to not only validate my understanding of this linking logic, but also to see if similar results were obtained (see Table 3).

We again successfully reconcile to the linked portfolio return, however, because the order of the returns differ, we obtain materially different contribution effects.

At present, there is no prohibition to using them, and the subject remains controversial.

But should order independence be required? As noted above, Andrew Frongello defended it early on, but has since reversed himself. Others, in addition to him and David Cariño (such as Jose Menchero, Ph.D., CFA) also oppose order dependence (as do I). That being said, this method is apparently widely used.⁸

More research is needed on this topic, though we welcome your thoughts.

		Alternative Example			Linked Contribution
Example 4		Period 1	Period 2	Period 3	
Contributions	Stock C	5.00%	3.00%	3.25%	11.997%
	Stock D	5.00%	4.00%	1.50%	11.294%
	Portfolio	10.00%	7.00%	4.75%	23.291%
Linked ROR =					23.291%

		Alternative Example			Linked Contribution
Example 5		Period 1	Period 2	Period 3	
Contributions	Stock G	3.25%	3.00%	5.00%	12.125%
	Stock H	1.50%	4.00%	5.00%	11.166%
	Portfolio	4.75%	7.00%	10.00%	23.291%
Linked ROR =					23.291%

Table 3

PUZZLE TIME

December Puzzle

Last month's puzzle was a bit different, as it required you to act a bit like an attorney: to draw conclusions based on the facts provided.

Malcolm, Tom, Debi, Anthony, and Carlos gathered together at a restaurant to celebrate the holidays. The restaurant serves five course meals. Each have a choice of soup, a salad, a pasta course, a meat course and a desert. The menu is as follows:

Soup: Minestrone, Tomato Bisque, or French Onion

Salad: Italian, Ranch, or Caesar Salad

Pasta: Spaghetti, Linguine, or Penne

Meat: Beef Steak, Chicken Breast, or Salmon

Dessert: Ice Cream, Apple Pie, or Chocolate Cake.

Some facts

- The only choice Malcolm and Tom have in common is linguine.
- The only choice Anthony and Carlos have in common is ice cream.
- Two people had beef steak.
- The only choice Debi and Anthony have in common is tomato bisque soup.
- The person who chose ranch and salmon had apple pie.
- Carlos had ranch salad.

⁸ Bruce Feibel includes this formula in his book (see *Investment Performance Measurement*, 2003).

The Journal of Performance Measurement has begun a series on performance measurement professionals, and we need your help to identify the folks we should include. We focus on one or two people in each issue, with the list driven by input from other PMPs.

And so, please contact our editor, [Doug Spaulding \(732-873-5700\)](#) with your suggestions.

- Two people had Caesar Salad.
- Only one person chose penne.
- The person who chose minestrone also chose Italian salad.
- Tom and Carlos did not choose minestrone soup.
- The people who chose beef steak had ice cream.
- *Anthony had chicken breast.*
- *The only choice Tom and Debi have in common is salmon.*
- Debi and Anthony did not have spaghetti.

Answer the following: What did each person eat at the restaurant?

I created a matrix, to help me solve this problem. I've italicized the clues that point to direct food choices, and we'll begin with that:

What we begin with					
	Soup	Salad	Pasta	Meat	Dessert
Malcolm			Linguine		
Tom			Linguine		
Debi	Tomato			Salmon	
Anthony	Tomato			Chicken Breast	Ice Cream
Carlos		Ranch			Ice Cream

We now use the clues to solve the rest. I show the answers here:

What we end up with					
	Soup	Salad	Pasta	Meat	Dessert
Malcolm	⁽²⁾ Minestrone	⁽²⁾ Italian	Linguine	⁽¹⁾ Beef Steak	⁽³⁾ Ice Cream
Tom	⁽⁷⁾ French Onion	⁽⁴⁾ Ceasar	Linguine	Salmon	⁽⁶⁾ Chocolate Cake
Debi	Tomato	⁽⁵⁾ Ranch	Penne	Salmon	⁽⁵⁾ Apple Pie
Anthony	Tomato	⁽⁴⁾ Ceasar	⁽⁸⁾ Linguine	Chicken Breast	Ice Cream
Carlos	⁽⁷⁾ French Onion	Ranch	⁽⁹⁾ Spaghetti	⁽¹⁾ Beef Steak	Ice Cream

I numbered the answers and show the logic here:

- (1) "Two people had beef steak. Since only Malcolm and Carlos's meat choice wasn't known, it's obviously them. That's an easy one!"
- (2) "The person who chose minestrone also chose Italian salad." "Tom & Carlos did not choose Minestrone." Only Malcom's soup choice is unknown, so we also know he chose Italian salad
- (3) "The people who chose beef steak had ice cream"
- (4) "Two people had Caesar Salad." "The only choice Debi and Anthony had in common is tomato bisque," and "the only choice Tom and Debi have in common is salmon." We also know that "the person who chose ranch and salmon had apple pie." And so, we have three folks to put salads in for, and know that two have Caesar and one has Ranch, and the person with Ranch had salmon. Debi

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and Anthony can't have anything more in common, nor can Debi and Tom, so Tom and Anthony must have Caesar.

- (5) "The person who chose ranch and salmon had apple pie."
- (6) "The only choice Malcolm and Tom have in common is linguine," so Tom can't have Ice Cream. "The only choice Tom and Debi have in common is salmon," so Tom can't have Apple Pie, either, so it must be chocolate cake.
- (7) "Tom and Carlos did not choose minestrone soup." Since "The only choice Tom and Debi have in common is salmon," he couldn't have Tomato, so it must be French Onion. And "since the only choice Anthony and Carlos had in common is ice cream," he can't have Tomato, either, so must have had French Onion.
- (8) "Debi and Anthony did not have spaghetti." "Only one person chose penne." Since "The only choice Tom and Debi have in common is salmon," then Debi couldn't have had Linguine, and so must have had penne. Anthony must have had Linguine.
- (9) "The only choice Anthony and Carlos have in common is ice cream," so Carlos couldn't have had Linguine. Since only Debi had Penne, he must have had spaghetti.

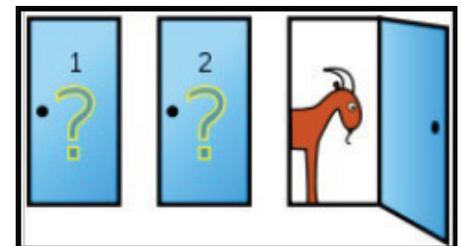
Neil Riddles	USA
Debi Rossi	USA
Anthony Howland	UK
Matthew Salter	Israel
Carlos Leute	Puerto Rico
Tom Stapleton	UK
Gerard van Breukelen	Netherlands
Jeremy Welch	USA
Mark McCreath	UAE
Hans Braker	Netherlands
David Plantamura	USA

We appreciate those who once again "took the challenge." (You may notice that some were at the table!)

January Puzzle

This may be a bit easier; perhaps a good way to start the year.

There was once (and still may be) a TV game show ("Let's Make a Deal"), where the contestant could choose one of three doors, behind one of which would be the grand prize. Typically, the person would choose a door (let's say #1). The host would then open up one of the doors, where the prize wasn't (let's say door #2). He would then turn to the contestant and ask "would you like to switch doors?" In other words, they first picked door #1, but now have the chance to select door #3 (knowing that door #2 does not hold the prize).



The question: should the person make the switch? Why or why not?

E.M. van de Burgt, M.Sc. CFA

Bio:

Elske holds a Master degree in econometrics and operations research from the University of Maastricht. After joining Ortec Finance in 1997 she held different roles within the company. She has worked together with many international clients in the performance measurement, attribution and risk area. In 2006 she became Product Manager of Ortec's performance attribution solution. Her current position is managing director of the Investment Performance group within Ortec Finance. She is responsible for all product related activities, including new implementations, support and sales as well as the Ortec's Investment Performance Service that offers a fully outsourced solution for institutional investors around the globe. Elske regularly writes articles and speaks at conferences about investment performance related topics. Laurentian University.



CLIENT'S CORNER

1. How long have you been involved in performance?

I have been involved in the industry since 1999. That year I joined the Ortec team that was building a new performance attribution system for the Shell pension scheme (nowadays managed by SAMCo). The system

was called PEARL and it is still going strong today. Starting as a junior tester I gradually moved up to a Managing Director position. I am currently responsible for all Investment Performance activities within Ortec Finance. These activities range from the sales, implementation and support of our performance attribution system to a fully outsourced service for institutional investors.

2. What do you enjoy most about it?

In the early days I learned a lot about performance methodologies and investment theory (I completed my CFA in 2003). Later on I got a much better understanding on the role ex-post performance evaluation has (or should have) in the investment process. I still enjoy talking to clients and prospects about this and specifically helping them to improve their investment decisions by using the ex-post analytics in the right way. Nowadays I most enjoy managing my team and sharing my years of knowledge with them.

3. What role does The Spaulding Group play at your firm?

We participate in the Spaulding forums for almost 15 years now. For us this is a good platform to exchange ideas with practitioners as well as other vendors in the industry. The forum, the journal and the regular news letters help us to stay up to date with market developments. I encourage all my team members to read the journal and to complete the CIPM program, that was initiated by the Spaulding Group. We furthermore attend the European PMAR conference every year, not only to learn from the different presenters but also to meet clients and prospects. Clearly the Spaulding group is strongly integrated in our firm.

**THE SPAULDING GROUP'S JANUARY – JUNE 2014
INVESTMENT PERFORMANCE MEASUREMENT CALENDAR OF EVENTS**

DATE	EVENT	LOCATION
February 10-11	Fundamentals of Performance Measurement	Toronto, Ontario, Canada
February 12-13	Performance Measurement Attribution	Toronto, Ontario, Canada
March 24-25	CIPM Principles Prep Class	New Brunswick, NJ (USA)
March 26-28	CIPM Expert Prep Class	New Brunswick, NJ (USA)
April 15	Performance Measurement for the Non-Performance Professionals	New York, NY (USA)
April 16	Portfolio Risk Class	New York, NY (USA)
April 14	Performance Measurement for Asset Owners	New York, NY (USA)
April 24-25	Performance Measurement Forum – North American Forum	Montreal, QE (Canada)
May 19-20	Fundamentals of Performance Measurement	New Brunswick, NJ (USA)
May 20	Fundamentals of GIPS Workshop	Philadelphia, PA (USA)
May 21-22	PMAR XII North America Westin Philadelphia	Philadelphia, PA (USA)
June 10-11	PMAR V Europe America Square Conference Centre	London, England
June 17-18	Fundamentals of Performance Measurement	Chicago, IL (USA)
June 19-20	Performance Measurement Attribution	Chicago, IL (USA)
June 19-20	Performance Measurement Forum – EMEA Forum	Berlin, Germany

For additional information on any of our 2014 events, please contact Christopher Spaulding at 732-873-5700

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www.nasba.org

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:

February 10-11, 2014 – Toronto, Canada
May 19-20, 2014 – New Brunswick, NJ

June 17-18, 2014 – Chicago, IL

15 CPE & 12 PD Credits upon course completion

CFA Institute has approved this program, offered by The Spaulding Group, for 12 CE credit hours. If you are a CFA Institute member, CE credit for your participation in this program will be automatically recorded in your CE tracking tool.



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:

February 12-13, 2014 – Toronto, Canada

June 19-20, 2014 – Chicago, IL

15 CPE & 12 PD Credits upon course completion

CFA Institute has approved this program, offered by The Spaulding Group, for 12 CE credit hours. If you are a CFA Institute member, CE credit for your participation in this program will be automatically recorded in your CE tracking tool.



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.

CIPM PREP TRAINING: March 24-25, 2014 – Principles Level–New Brunswick, NJ
March 26-28, 2014 – Expert Level–New Brunswick, NJ

UPDATED CIPM Principles and Expert Flash cards are now available on our web store. Please visit www.SpgShop.com today to order your set.

Our performance experts have created a study aid which can't be beat: **flash cards!** These handy cards will help you and your associates prepare for the upcoming CIPM Principles Exam. Unlike a computer-based study aid, you can take them anywhere to help you test your knowledge.

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