

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

<http://www.SpauldingGrp.com>

CONVERTING A QUARTERLY RETURN INTO MONTHLIES

I had an interesting question from a client recently. While their prior system would allow them to link quarterly returns together, to extend performance to multiple years, and then derive annualized results, their new system can't: it only works with monthly. And so, can they convert the quarterly into monthly?



I recall years ago a firm that wanted to report monthly, when they only had quarterly. The reality is that you can have an infinite number of possible results. For example, consider the following:

We have a quarterly return of 6.11 percent. We want to break it into monthly returns. I suggest we begin by simply taking the quarterly return, add one, and raising it to the one-third power; we then subtract one. This will result in the same result for each month. We can also see from the following table that there are many other possible monthly returns that will also get us our 6.11% quarterly return.

Mth 1	Mth 2	Mth 3	Qtr
2.00%	2.00%	2.00%	6.11%
1.00%	2.00%	3.00%	6.11%
-5.00%	15.00%	-2.87%	6.11%
100.00%	-50.00%	6.11%	6.11%
0.00%	0.00%	6.11%	6.11%
25.00%	-15.00%	-0.13%	6.11%

And so, to report any of these as legitimate monthly returns would be wrong, in my view (or, as some like to write, IMHO¹).

That said, can we use these monthly within a system, such as our client has, that can only work with monthly? Well, I extended these results for a full year, with a series of returns, to see if there would be any differences.

Mth 1	Mth 2	Mth 3	Mth 4	Mth 5	Mth 6	Mth 7	Mth 8	Mth 9	Mth 10	Mth 11	Mth 12	Year
2.00%	2.00%	2.00%	1.00%	-1.20%	1.75%	2.35%	1.75%	-5.00%	6.10%	-0.80%	18.00%	32.38%
1.00%	2.00%	3.00%	1.00%	-1.20%	1.75%	2.35%	1.75%	-5.00%	6.10%	-0.80%	18.00%	32.38%
-5.00%	15.00%	-2.87%	1.00%	-1.20%	1.75%	2.35%	1.75%	-5.00%	6.10%	-0.80%	18.00%	32.39%
100.00%	-50.00%	6.11%	1.00%	-1.20%	1.75%	2.35%	1.75%	-5.00%	6.10%	-0.80%	18.00%	32.38%
0.00%	0.00%	6.11%	1.00%	-1.20%	1.75%	2.35%	1.75%	-5.00%	6.10%	-0.80%	18.00%	32.38%
25.00%	-15.00%	-0.13%	1.00%	-1.20%	1.75%	2.35%	1.75%	-5.00%	6.10%	-0.80%	18.00%	32.38%

¹ For the record, this is the first time I've ever written this. And while I love abbreviations and acronyms, I haven't fallen victim to the "text messaging" abbreviations. I was in the U.S. Army for almost five years; the army loves abbreviations. It was not uncommon to have, for example, that something was due NLT COB (no later than, close of business). I frequently use abbreviations in internal emails, but rarely beyond the company. But, I did it here, so perhaps I'm branching out!

The Journal of Performance Measurement®

UPCOMING ARTICLES

Fixed Income Attribution with Carry Effect

– Tianci Dai, CFA, CIPM
Mark Elliott

The Associative Property of Attribution Linking

– Yindeng Jiang, CFA
Joseph Sáenz, Ph.D.

New Look at Multi-Period Attribution: Solving Rebalancing Issue

– Dmitry Cherkasov, CFA, CIPM

Visualization, R, ggplot2, and Applied Finance in Performance Measurement

– Rodolfo Vanzini

Contribution Fundamentals

– David Spaulding, DPS, CIPM

The returns for the full year match in most cases, and are only off by one basis point for one series.

I then extended this to 36 months:

Mth 1	Mth 2	Mth 3	Mth 4	Mth 5	Mth 6	Mth 31	Mth 32	Mth 33	Mth 34	Mth 35	Mth 36	3-Year
2.00%	2.00%	2.00%	1.00%	-1.20%	1.75%	0.01%	0.36%	0.18%	-0.01%	-0.03%	0.04%	35.22%
1.00%	2.00%	3.00%	1.00%	-1.20%	1.75%	0.01%	0.36%	0.18%	-0.01%	-0.03%	0.04%	35.22%
-5.00%	15.00%	-2.87%	1.00%	-1.20%	1.75%	0.01%	0.36%	0.18%	-0.01%	-0.03%	0.04%	35.22%
100.00%	-50.00%	6.11%	1.00%	-1.20%	1.75%	0.01%	0.36%	0.18%	-0.01%	-0.03%	0.04%	35.22%
0.00%	0.00%	6.11%	1.00%	-1.20%	1.75%	0.01%	0.36%	0.18%	-0.01%	-0.03%	0.04%	35.22%
25.00%	-15.00%	-0.13%	1.00%	-1.20%	1.75%	0.01%	0.36%	0.18%	-0.01%	-0.03%	0.04%	35.22%

We get the same results!

And so, I concluded that yes, if we want to convert quarterly to monthly, in order to overcome a system's limitations, and are only doing this to extend the results to longer periods and not for reporting, it should be fine.

And as for the one basis point difference in the 12-month example, we need to extend the precision of our quarterly return to see what is going on:

Mth 1	Mth 2	Mth 3	Qtr
2.00%	2.00%	2.00%	6.1100%
1.00%	2.00%	3.00%	6.1106%
-5.00%	15.00%	-2.87%	6.1145%
100.00%	-50.00%	6.11%	6.1100%
0.00%	0.00%	6.11%	6.1100%
25.00%	-15.00%	-0.13%	6.1119%

As you can see, there are some differences. I'd use the approach I did for the first example (as explained above, that results in the 2.00% returns), as this will ensure that we are getting the correct results.

NEW PROPOSED GIPS GUIDANCE STATEMENT TO REVIEW!

A draft "GS" to replace the current GIPS® Guidance Statement on Supplemental Information has been issued and is available for public comment.²

One thing I really like is the suggestion to not have to refer to items that are exogenous³ to the actual composite presentation. Many had previously interpreted the actual requirement to mean this, but it was a bit ambiguous, so this change will make it clearer.

I will be submitting my comments shortly; I encourage you to review this draft, too, and comment!



² See https://www.gipsstandards.org/standards/Documents/Guidance/exposure_draft_public_comment_revised_suppl_info.pdf or, if you prefer a shorter version: <http://tinyurl.com/hmo5yku>

³ Within the same newsletter that I use IMHO, I toss a word out like "exogenous"! Geez! Well, this is a word I became quite familiar with when I was pursuing my doctorate (along with its companion, endogenous). Exogenous means outside of, while endogenous means within. Fancy!!!

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.

PMAR 2017: THE WIZARDS OF PERFORMANCE MEASUREMENT

For about the past five years, we've assigned themes to each conference. This year's is "The Wizards of Performance Measurement." This idea was suggested by Holly Heyman of Stanford Management Company. We asked last year's attendees to offer suggested themes, and "wizards" won. And so, Holly will be gifted a complimentary pass to either PMAR North America or PMAR Europe.

As we've done for each themed-conference, we're having caricatures done of the speakers. Our company's team members are also being turned into wizards. Mine is here, so you can get an idea of what they'll look like.

To learn more about this year's conferences, please visit <http://www.spauldinggrp.com/conferences/>.



PUZZLE TIME

December puzzle





We went with a holiday-themed puzzle for last month.

While there is probably some clever way to solve this puzzle, I did it using trial and error. I thought that starting with the bottom center and bottom right squares would make sense, since we already have two of the number (4 and 3). And, there's a big advantage here, because there are only two possible sets of numbers:

Since $4 + 3 = 7$, and we're looking to find two numbers to add to this value to get 25, we are therefore looking for two numbers that add to 18, since $25 - 7 = 18$. And, these numbers must be within the range of 3 and 11 (and using a number only one time). And what are these possible numbers? 11 and 7, and 10 and 8. And so, we not only know the pair of numbers that will fit in the bottom center and right squares, we also have the pair that will fit in the top center and right. But which pair for each, and which order?

Christmas Day Math Puzzle

Christmas Day is December 25. That's why Santa's favorite number is 25. Can you put the numbers from 3 – 11 into the square so that each set of 4 numbers surrounding Santa and also the numbers surrounding each of his helpers add to 25? That means that the 4 numbers around each person would add to 25. The numbers 6, 4 and 3 have already been added for you.

 25	 25
 25	 25

6
4
3

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Well, it's again trial-and-error. And, as luck would have it, I didn't stumble upon the solution very easily.

	10	8		10	8	can't be 5; 5 taken	11	7
can't be 4; 4 taken	4	3	can't be 8; 8 taken	4	3	5	4	3
6	11	7	6	7	11	6	10	8

As might be obvious, I tried three of the four possible sets and failed on each, leaving the remaining to be our solution:

9	7	11
5	4	3
6	10	8

And so, even though it took me four attempts, I'd classify this as a relatively simple puzzle.

Hans Braker, Dan Lehrer, Matthew Rayner, and Joel Buursma all got it right! None offered a clever trick, strategy, formula, so I suspect they may have, like me, done this via trial-and-error, but probably with greater speed!

January puzzle⁴

The jar of marbles game

Here is a jar of **66** marbles. You or your opponent can remove **1 to 9** marbles on your respective turns. The object of the game is to be the one who removes the last marble or marbles. How many marbles must the first person draw in order to be certain to draw the last marble and win the game?



⁴ Source: Math: An Integral Part of Happiness

THE SPAULDING GROUP'S 2017 INVESTMENT PERFORMANCE MEASUREMENT CALENDAR OF EVENTS

DATE	EVENT	LOCATION
February 6, 2017	Linking Methods Webcast	
February 14-15, 2017	Fundamentals of Performance Measurement	Chicago, IL (USA)
February 16-17, 2017	Performance Measurement Attribution	Chicago, IL (USA)
March 7-8, 2017	Fundamentals of Performance Measurement	San Francisco, CA (USA)
March 9-10, 2017	Performance Measurement Attribution	San Francisco, CA (USA)
April 2017	Fixed Income Attribution Webcast	
April 25, 2017	Asset Owner Roundtable	Seattle, WA
April 26-27, 2017	Performance Measurement Forum	Seattle, WA
May 9-10, 2017	PMAR North America	Jersey City, NJ
May 11-12, 2017	Fundamentals of Performance Measurement	Jersey City, NJ
June 14-15, 2017	PMAR Europe	London, England
June 22-23, 2017	Performance Measurement Forum	Vienna, Austria
July 17-21, 2017	Performance Measurement Boot Camp	New Brunswick, NJ
August 15-16, 2017	Fundamentals of Performance Measurement	Toronto, Ontario
August 17-18, 2017	Performance Measurement Attribution	Toronto, Ontario
September 2017	Basic Risk Measures Webcast	
October 16-17, 2017	Fundamentals of Performance Measurement	Los Angeles, CA
October 18, 2017	PMAR West Coast	Los Angeles, CA
October 19-20, 2017	Performance Measurement Attribution	Los Angeles, CA
November 2-3, 2017	Performance Measurement Forum	Rome, Italy
November 14, 2017	Asset Owner Roundtable	Orlando, FL
November 15-16, 2017	Performance Measurement Forum	Orlando, FL
December 2017	Performance Measurement for Non-Performance Professionals Webcast	
December 11-12, 2017	Fundamentals of Performance Measurement	New Brunswick, NJ
December 13-14, 2017	Performance Measurement Attribution	New Brunswick, NJ

For additional information on any of our 2017 events, please contact Christopher Spaulding at 732-873-5700

Join the WIZARDS of PERFORMANCE MEASUREMENT



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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 14-15, 2017 – Chicago, IL
March 7-8, 2017 – San Francisco, CA
May 11-12, 2017 – Jersey City, NJ

August 15-16, 2017 – Toronto, Ontario
October 16-17, 2017 – Los Angeles, CA
December 11-12, 2017 – New Brunswick, NJ

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 16-17, 2017 – Chicago, IL
March 9-10, 2017 – San Francisco, CA
August 17-18, 2017 – Toronto, Ontario

October 19-20, 2017 – Los Angeles, CA
December 13-14, 2017 – New Brunswick, NJ

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.