# PERFORMANCE PERSPECTIVES with David Spaulding

VOLUME 13 – ISSUE 5 JUNE 2016




## WHAT HAPPENED TO MARCH, APRIL & MAY?

This year has been an extremely busy one for us, and finalizing this newsletter has been a bit of a challenge. But, I have finally put the time aside to do that. This issue essentially represents four months: March, April, May, and June. But rather than call it that, we'll just refer to it as our "Junr 2016" issue, meaning that we don't have one for March, April, or May. I think that works better.

I'll try to be better. I've found it increasingly difficult of late to "juggle" my schedule and other obligations, such as writing, in general, and the newsletter and blog posts, in particular.

## NEW GUIDANCE STATEMENT

As you are probably aware, the GIPS® Executive Committee issued a draft "GS" for pooled funds a few months ago, with a deadline of April 29 for comments. I found the document to be generally quite good. While I didn't believe there was confusion regarding a GIPS compliant firm's responsibilities towards pooled fund investors, this document helps clarify the point: firms are not required to provide pooled fund investors with presentations. This, to me, makes sense, since the investor isn't being sold on a strategy, but rather a pooled fund. And these pooled funds typically have materials that clearly explain what's involved.

The document also serves the need for markets that lack regulatory oversight, where guidance on what to provide pooled fund investors is needed. This is, I think, a bit outside the normal scope of GIPS, but does serve the industry well.

And while the number of comments wasn't as extensive as I would have expected, there are still quite a lot that came in.[1] I found some to be quite interesting, including the one from T. Rowe Price, that found a number of issues with this document. No doubt, the GIPS EC will take these comments into consideration as they look to finalize the document.

We won't know for a bit longer what the final GS will look like, but I suspect it will be a good addition to the family of guidance statements that accompany the Standards.

## RISK-ADJUSTED PERFORMANCE ATTRIBUTION

You're no doubt familiar with the suggestion that if you want to really learn something, teach it.

I had been wanting to delve into the area of risk-adjusted performance attribution for some time, but until recently hadn't devoted the time. Several months ago, when we were preparing the agenda for PMAR Europe, we scheduled this topic for me. This

1 *They can be found here: http://www.gipsstandards.org/standards/Pages/guidance_comments_pooledfunds.aspx*

*The Journal of Performance Measurement®*



would force me to do the research that I had to. And although the pressure was a bit extreme given my other obligations, I put the time in, and found the experience quite valuable, insightful, interesting, and fruitful.

I have only identified two articles on this topic: Ernest Ankrim's "Risk Adjusted Performance Attribution" (*FAJ*, March-April, 1992) and Andrew Kophamel's "Risk-Adjusted Performance Attribution: A New Paradigm for Performance Analysis" (*Journal of Performance Measurement*, Summer 2003). And why is that? Well, I believe that the approaches that had been previously offered were perhaps overly difficult to implement. The method I have developed is one that isn't so difficult, and one that will provide a much enhanced approach to attribution.

Recall that attribution's role is to identify the sources of performance: in the case of relative attribution, we want to know where the excess return has come from. We typically show the results in terms of "effects," which usually link back to the manager's decisions. In the case of equity attribution, we do this with allocation and selection effects, and, for the more enlightened ones, an interaction effect.

Heretofore, a key component of the investment decision process has been missing: risk. Clearly, portfolio managers take on a degree of risk when they make their investment decisions. And if this risk isn't isolated, it's going to be embedded within these other effects.

Much of the performance literature deals with risk-adjusted performance, beginning with the paper the late Jack Treynor[2] published in 2015. We typically see one or more of these measures reported to clients and prospects. Why then do we fail to take risk into consideration when reporting attribution? Again, I think because the previously proposed methods were difficult to implement. I vigorously credit these authors for their work; but something more was needed to make the task an easier one to accomplish.

In my forthcoming talk, I will discuss this topic and introduce a method that I believe makes this task a relatively easy one to accomplish, that will result in heightingly more meaningful results.

I've begun working on a paper, as well, which soon will be published in *The Journal of Performance Measurement®*. I hesitate to go into much more detail here, as I want to save some of it for both the paper and presentation. And so, I'll leave the topic for now.

## NEW PERFORMANCE MEASUREMENT COURSE BEING OFFERED

Most of the training that we offer originated from our own thinking, and includes our Fundamentals of Performance Measurement (which we've been offering for nearly 20 years), Performance Attribution, our one-day GIPS workshop, our five-day Boot Camp, and our new Performance Measurement Master Class. These classes have, on occasion, been customized for clients who wanted them taught in-house, but "with a twist."

One client recently asked for a one-day class devoted to rates of return. And while the "ROR" section of Fundamentals takes up most of "Day 1," it's not a full day experience: this new class is. It is an expansion of what we teach in Fundamentals, and provides students with an expanded opportunity to delve into the measures, to better understand

2 http://www.wsj.com/articles/scholar-jack-treynor-changed-thinking-on-how-to-build-a-stock-portfolio-1464383222

them, and to gain additional insights. We've significantly expanded the IRR section, too, which only makes sense given (a) our devotion to this approach and (b) the industry's recent realization that it is, in fact, an extremely important measure.

I do not yet know whether we will offer this class as an "open enrollment" option: that's something we're considering. But it is available for in-house employment.

## JACK TREYNOR, RIP

To say that the late Jack Treynor "got no respect" would be far from correct. However, it does appear that he missed out on a certain degree of fame that would have been well deserved.

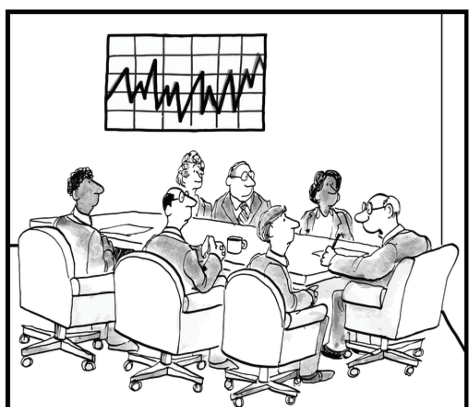
*As the story goes*, when Bill Sharpe was conducting his research that led to the Capital Asset Pricing Model (CAPM), he met with Franco Modigliani. Franco knew that Jack Treynor was conducting similar research, and suggested that Bill contact him, which he did. When Jack saw what Bill had done, he decided not to have his paper published, as he felt that Bill's work was superior to his. As the recent WSJ article cited earlier mentions, had he gone forward and had it published, it is likely that he, too, would have received the Nobel Prize in Economics.

In 1965, Jack's paper that presented his risk-adjusted measure (which today we refer to as the Treynor Ratio or Treynor Measure) was published. A year later, picking up on this work, Sharpe offered his approach, which was identical to Jack's except that in the denominator he replaced Jack's Beta with standard deviation. Sharpe's measure has been much more widely used than Treynor's, but would he have developed his without Jack leading the way? It's difficult if not impossible to say.

We had the pleasure of meeting Jack about 18 years ago, when he spoke at the inaugural meeting of the Performance Measurement Forum. I recall that our members were quite pleased to be in the presence of such a legend. Jack was warm and welcoming.

If you haven't read the WSJ obit, I suggest you do: it's quite enlightening. We lost an industry legend last month.

## INCONSISTENCY IN RATES OF RETURN



"At least we are consistently inconsistent."

I just did a blog post on this,[3] but want to include a discussion here, as well, as I think it has value.

You perhaps know that not only am I a fan of money-weighting, but I believe it's the <u>only</u> approach to be used at the subportfolio level. Why? Well, because the manager controls these flows. In our classes and discussions I often show examples to demonstrate this, and here's a simple one:

3 http://www.spauldinggrp.com/okay-inconsistent-rates-of-return/

## PERFORMANCE & RISK MEASUREMENT HALL OF FAME

A few years ago, *The Journal of Performance Measurement* launched the Performance & Risk Measurement Hall of Fame, to recognize those individuals who have made significant contribu-tions to our segment of the industry. To date we've inducted several individuals, including three Nobel prize winners (William Sharpe, Franco Modigliani, and Eugene Fama), portfolio managers (including Gary Brinson and Brian Singer), as well as several others, including Peter Dietz and Jose Menchero. This year's "class" consists of the following highly worthy individuals:

- Frank Sorino, PhD
- Steve Campisi, CFA
- Carl Bacon, CIPM.

Frank spoke at this year's North America Performance Measurement Forum meeting in San Francisco, where he was presented with his award. Steve spoke at PMAR North America, where he was supposed to get the award, but because I failed to bring it, he'll have to wait a bit. Carl will get his at this year's EMEA Performance Measurement Forum meeting in Dubrovnik, Croatia.

We congratulate all three and thank them for their contributions.

- Day 1: a portfolio holds 100 shares security X, valued at $10 per share (value = $1,000)
- Day 2: the stock price drops to $5 per share, and the manager buys 1,000 additional shares (contribution = $5,000)
- Day 3: the stock price has risen to $11 per share; the manager now owns 1,100 shares (value = $12,100).

What's our return? Well, since we want to revalue for the large flow when employing time-weighting, our math is as follows:

$$\text{Re}turn = \prod \frac{V_E}{V_B} - 1 = \frac{500}{1{,}000} \times \frac{12{,}100}{5{,}500} - 1 = 10.0\%$$

Because time-weighting eliminates the effect of cash flows, our result only reflects the change in the security's price from the start to the end of the period (i.e., from $10 to $11): the manager gets no credit for the decision to purchase additional shares when the stock dropped.

I calculated both the return using Modified Dietz (174.29%) and IRR (218.16%), which are both much better than the nonsensical 10 percent.

While I thought I had "made my case" and demonstrated why MWRR makes sense, our client asked that we pretend that the portfolio only consists of this single security, and that the additional purchase was the result of an external cash flow. If his firm were to take me up on my suggestion and show TWRR at the portfolio level and MWRR at the subportfolio level, they'd show the following:

- Portfolio return = 10.00%
- Subportfolio return = 218.16%.

Since the portfolio is only made up of what's in the subportfolio and nothing more, how could they report two different returns: this apparent inconsistency made no sense.

Well, I thought it did, as we're measuring *two different things*.

At the portfolio level, we want to capture what the manger controls, which is not the external flows; consequently, we only have a 10% return. The manager does not get credit for the timing of the external cash flow.

But, at the subportfolio level, the manager does get credit for her decision to invest this money in the only security the portfolio held, correctly seeing the drop as being temporary, resulting in a sizable gain.

The reality is that if you've been in performance measurement for any length of time, chances are you've come across results that don't seem to make sense. In some cases, they're non-explainable; in others, they are.

In our Fundamentals of Investment Performance class we include several examples, including this one, which I also referenced in the blog post.

We start with the report that the firm produces:

## Consider this:

| | Equities | Bonds | Cash | Total |
|---|---|---|---|---|
| ROR | 2.32% | -0.85% | 3.24% | 6.01% |

- Our portfolio return (the "whole")
- Is greater than any of the parts (equities, cash, bonds)
- How come?

The firm consistently used TWRR for both the portfolio and subportfolio results; but, these results appear suspicious, since none of the sectors has a result that comes close to the portfolio's. As the third bullet asks, how come? How can this be?

Well, if we look into the portfolio:

| | Equities | Bonds | Cash | Total |
|---|---|---|---|---|
| BMV | 10,000.00 | 10,000.00 | 80,000.00 | 100,000.00 |
| ROR | -2.00% | -1.50% | 0.80% | 0.29% |
| EMV 1Q | 9,800.00 | 9,850.00 | 80,640.00 | 100,290.00 |
| ROR | -3.00% | -2.00% | 0.80% | 0.15% |
| EMV 2Q | 9,506.00 | 9,653.00 | 81,285.12 | 100,444.12 |
| | | Rebalance | | |
| BMV | 60,000.00 | 30,000.00 | 10,444.12 | 100,444.12 |
| ROR | 3.50% | 1.20% | 0.80% | 2.53% |
| EMV 3Q | 62,100.00 | 30,360.00 | 10,527.67 | 102,987.67 |
| ROR | 4.00% | 1.50% | 0.80% | 2.94% |
| EMV 4Q | 64,584.00 | 30,815.40 | 10,611.89 | 106,011.29 |
| | Equities | Bonds | Cash | Total |
| ROR | 2.32% | -0.85% | 3.24% | 6.01% |

we discover that the manager had most of the portfolio in cash for the first six months: as it turns out, that was a wise decision, given the poor performance of both stocks and bonds. However, midway through year he decided to move money into these sectors, and his timing was perfect, resulting in nice gains. But, because we use TWRR, these decisions are ignored and the results are as we showed in the first panel.

How does one explain this to a client? Or, for that manner, the portfolio manager, who wants some credit for his wise investment decision? "Oh, we use time-weighting to eliminate the effect of cash flows!" His response: "but why, since I controlled the subportfolio cash flow decision; why would you eliminate it?" Good question, good question.

## 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.*

Let's look at the IRR results:

| | Equities | Bonds | Cash | Total |
|---|---|---|---|---|
| MWRR | 11.84% | 2.33% | 3.24% | 6.01% |

$$IRR_{Equities} = 10{,}000 + \left(\frac{50{,}494}{(1+r)^{1/2}}\right) - \left(\frac{64{,}584}{1+r}\right) = 0$$

$$IRR_{Bonds} = 10{,}000 + \left(\frac{20{,}347}{(1+r)^{1/2}}\right) - \left(\frac{30{,}815.40}{1+r}\right) = 0$$

$$IRR_{Cash} = 80{,}000 + \left(\frac{-70{,}841}{(1+r)^{1/2}}\right) - 10{,}661.89 = 0$$

(C) The Spaulding Group 2015

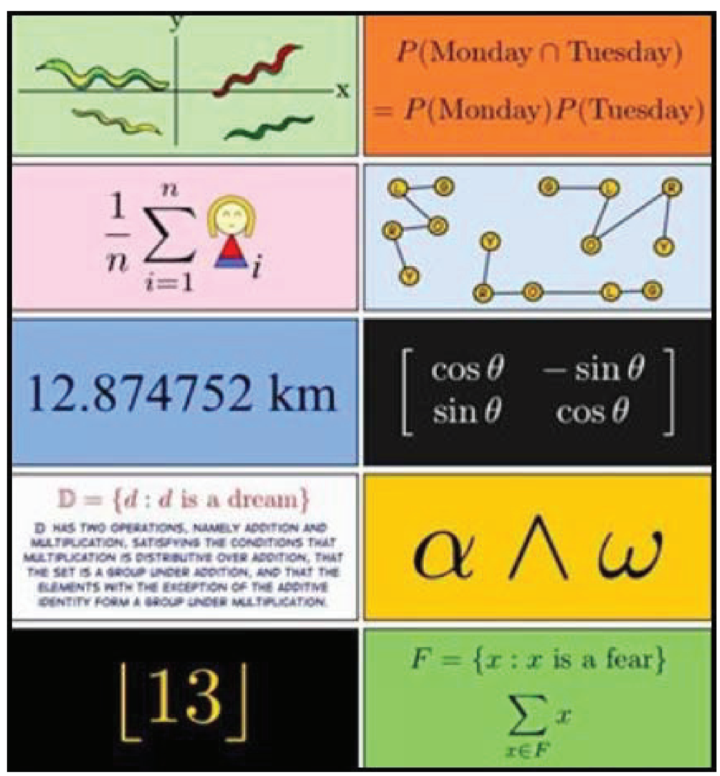
Don't these results make more sense? Don't they capture what the manger did? Don't they better reconcile to the overall portfolio return?

And so, we champions of money-weighting would argue that at the subportfolio level, we should always use money-weighting, even if it results in being "inconsistent." Hopefully, you agree!

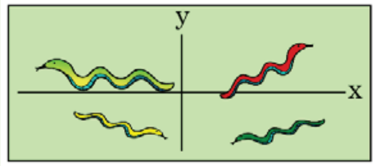
## PUZZLE TIME

**January/February Puzzle**

We presented the following graphics where each represent a movie title; we asked for you to solve them.



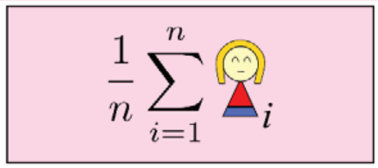
I really stunk at this myself, so had to ask the creator to provide the solutions, which he was kind enough to do.



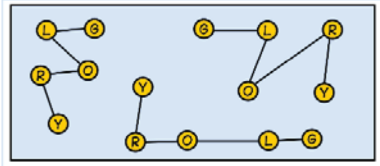

**Snakes on a Plane**

$$P(\text{Monday} \cap \text{Tuesday})$$
$$= P(\text{Monday})P(\text{Tuesday})$$

**Independence Day**




**Mean Girls**



**Paths of Glory**

$$12.874752 \text{ km}$$

**8 Mile**

$$\begin{bmatrix} \cos\theta & -\sin\theta \\ \sin\theta & \cos\theta \end{bmatrix}$$

**The Matrix Revolutions**

$\mathbb{D} = \{d : d \text{ is a dream}\}$

$\mathbb{D}$ HAS TWO OPERATIONS, NAMELY ADDITION AND MULTIPLICATION, SATISFYING THE CONDITIONS THAT MULTIPLICATION IS DISTRIBUTIVE OVER ADDITION, THAT THE SET IS A GROUP UNDER ADDITION, AND THAT THE ELEMENTS WITH THE EXCEPTION OF THE ADDITIVE IDENTITY FORM A GROUP UNDER MULTIPLICATION.

**Field of Dreams**

$$\alpha \wedge \omega$$

**Alpha and Omega**

$$F = \{x : x \text{ is a fear}\}$$
$$\sum_{x \in F} x$$

**The Sum of All Fears**

$$\lfloor 13 \rfloor$$

**The Thirteenth Floor**

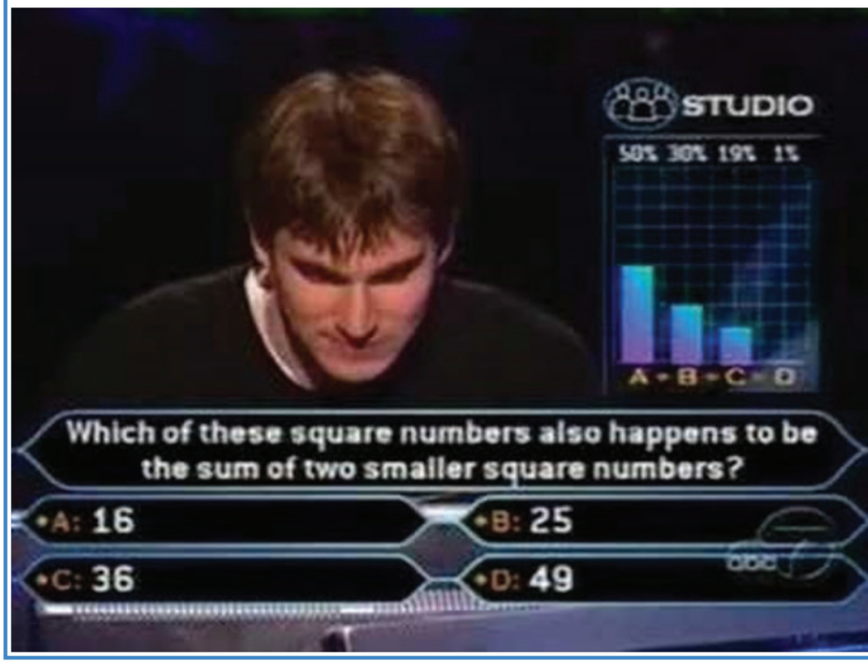
There are others, and they can be found here: http://spikedmath.com/movie-math-quiz/solutions.php.

Anthony Howland was the only one to get all the answers (congrats, Anthony!). Hans Braker provided one solution (8 Mile). Hans also solved the November/December 2015 puzzle, but I failed to mention this (sorry, Hans!).

**June Puzzle**

I can't recall where I found this, but it's apparently some game show:

When not knowing math can cost you $15,000.




And, I'm guessing that this gentleman didn't solve it; can you?

## THE SPAULDING GROUP'S 2016 INVESTMENT PERFORMANCE MEASUREMENT CALENDAR OF EVENTS

| DATE | EVENT | LOCATION |
|---|---|---|
| July 19-20 | Fundamentals of Performance Measurement | Chicago, IL (USA) |
| July 21-22 | Performance Measurement Attribution | Chicago, IL (USA) |
| August 15-16 | CIPM Prep Classes – Principles Level | Chicago, IL (USA) |
| August 17-19 | CIPM Prep Classes – Expert Level | Chicago, IL (USA) |
| October 18-19 | Fundamentals of Performance Measurement | San Francisco, CA (USA) |
| October 20-21 | Performance Measurement Attribution | San Francisco, CA (USA) |
| November 3-4 | Performance Measurement Forum | Rejkjavik, Iceland |
| November 16 | Asset Owner Roundtable Meeting | Austin, TX (USA) |
| November 17-18 | Performance Measurement Forum | Austin, TX (USA) |
| December 6-7 | Fundamentals of Performance Measurement | New Brunswick, NJ (USA) |
| December 8-9 | Performance Measurement Attribution | New Brunswick, NJ (USA) |

*For additional information on any of our 2016 events, please contact Christopher Spaulding at 732-873-5700*

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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:

July 19-20, 2016 – Chicago, IL
October 18-19, 2016 – San Francisco, CA
December 6-7, 2016 – 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.

CE Qualified Activity 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:

July 21-22, 2016 – Chicago, IL
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CE Qualified Activity 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.

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