PERFORMANCE PERSPECTIVES
with David Spaulding

VOLUME 14 – ISSUE 7 MARCH 2017

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

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TIMING IS EVERYTHING

Don't you just love it when someone uses a cliche as their title? Geez, no originality?

Anyway, putting my self-criticism aside, timing is (or at least does seem at times) to be everything.

A client recently alerted me of a March 12, 2017 *Financial Times* article by Madison Marriage and Cat Rutter Pooley titled "Debate intensifies over fund performance figures."[1] It seems that the way Schroders has chosen to present their performance figures has come under criticism from one of their clients. There appears to be two chief objections that were leveled at the money manager:

1) Schroders had reported that 74% of its assets outperformed their benchmark or peer group over three years, rising to 85% over five years. However, a footnote explained that it only had enough data to measure performance for two-thirds of their assets for five years, meaning the 85% outperformance related to a maximum of 54% of the company's assets.

2) The outperformance did not take into account all fees.

The article also compared ten managers and found that some reported gross while others reported net.

A statement from the article is worth quoting: "There is nothing complicated about presenting fund performance data in a way that is clear, fair and not misleading." I'm not very sure about that.

One or more of the firms claimed GIPS® compliance, and are therefore beholden to the GIPS advertising guidelines, but only if "GIPS" is referenced within the piece, otherwise, *anything goes*. That is, provided the regulator doesn't object.

I recently visited the site of a Florida-based asset manager who is registered with the Securities & Exchange Commission (SEC). Nowhere do they indicate whether the returns are net or gross. Knowing the SEC's rules, I sent them a note advising them that (a) they have to label what the returns are and (b) if they're gross-of-fee, they must also show net-of-fee with equal or greater prominence.

In 1999, a sizable U.S.-based mutual fund company ran an advertisement touting their funds' collective performance a few years back, with the line "29 [fund manager's name]

1 March 12, 2017. https://www.ft.com/content/370cb1e6-058b-11e7-aa5b-6bb07f5c8e12

The Journal of Performance Measurement®

UPCOMING ARTICLES

Fair and Transparent Performance Fee – Part Two
– Steinar Eikeland

Puzzles in Risk and Performance: Part 3
– Marcus Hedbring

The Journal Interview
– Karyn Vincent

Annual Risk Measures and Related Statistics
– Arno E. Weber

Performance Attribution for Passive Strategies
– Dax Johnson

The Case Against Time-Weighted Return for Alternative Investments
– Timothy F. Peterson

funds outperformed the S&P 500 in [year].” There were two huge problems with this advertisement, in my opinion:

- how many funds didn’t?
- in almost all cases, the S&P 500 was the wrong index to use for the funds.

The GIPS Executive Committee has recently approved new guidance for pooled funds, some-thing that must be considered controversial, given the amount of comments they received.[2] As I recall, it does not touch on the issue raised here, though something is clearly needed.

In many cases regulators define the rules, but apparently they’re not always as clear or as extensive as they need to be.

The article is speaking of specifically a UK situation, though no doubt there are others who have similar challenges. It references the Transparency Task Force,[3] a group that “lobbies on behalf of investors, [that] has called on the UK regulator to investigate” this matter.

I recently testified on a similar case, where the manager was providing misleading and, at times, fraudulent information.

Apparently, more is needed to ensure (or perhaps reduce the risk that) problems like this don’t continue to surface.

AN ADVISORY FEE CONUNDRUM

No doubt you’ve run into a situation like this.

You charge a client an agreed upon annual fee. And at the end of the year, they subtract their net-of-fee return from the gross-of-fee, fully expecting to see the quoted and contractually agreed upon annual fee amount. However, it’s different; perhaps quite different. And so, they call you and ask “what the heck’s going on? Am I being overcharged?”

How do you respond?

This scenario has been presented to me a few times, and the most recent occasion resulted in a blog post,[4] from which this piece is derived. I’m somewhat limited in space in the blog, and the newsletter allows me to delve into this a bit further.

The reason for the difference is compounding. Of course, you can’t get away just saying “oh, it’s because of compounding” to your client, and expect that they’ll respond “oh, okay; I get it now. Thank you for clarifying the situation so very well for me.” Nope!

To extend it a bit further, *returns compound at different rates*. A larger series of returns will compound faster than a smaller series. Given that the gross-of-fee return is more often than not larger than the net-of-fee return series, it will compound faster. Thus, we see a divergence in the end which, although perhaps not expected, is mathematically sound and correct.

2 https://www.gipsstandards.org/standards/Pages/guidance_comments_pooledfunds.aspx

3 http://www.transparencytaskforce.org/

4 http://www.spauldinggrp.com/when-gross-minus-net-doesnt-equal-the-annual-advisory-fee-still-an-oldie-but-a-goodie.

Let’s walk through a few examples to demonstrate how the compounding of two different series of returns results in wider or narrower variances in the end.

Our starting point is presented in Table 1. This is essentially the problem that was posed to me. The annual fee is 1.10%, which has a monthly equivalent of 0.091 percent.[5] I want to show the impact from a money perspective, too, and so the starting value is also shown (1 million).

Annual	1.10%
Monthly	0.091%
Starting Value	1,000,000

Table 1

We will consider a few examples, where each has the same monthly return for the full year.

Our first (Table 2) has monthly gross-of-fee returns of 1.00 percent.

	GOF	Fee	NOF	VE	Fee	Net VE
Jan	1.00%	0.09%	0.91%	1,010,000.00	921.20	1,009,078.80
Feb	1.00%	0.09%	0.91%	1,019,169.59	929.56	1,018,240.03
Mar	1.00%	0.09%	0.91%	1,028,422.43	938.00	1,027,484.43
Apr	1.00%	0.09%	0.91%	1,037,759.27	946.52	1,036,812.76
May	1.00%	0.09%	0.91%	1,047,180.88	955.11	1,046,225.77
Jun	1.00%	0.09%	0.91%	1,056,688.03	963.78	1,055,724.25
Jul	1.00%	0.09%	0.91%	1,066,281.49	972.53	1,065,308.96
Aug	1.00%	0.09%	0.91%	1,075,962.05	981.36	1,074,980.69
Sep	1.00%	0.09%	0.91%	1,085,730.50	990.27	1,084,740.23
Oct	1.00%	0.09%	0.91%	1,095,587.63	999.26	1,094,588.37
Nov	1.00%	0.09%	0.91%	1,105,534.25	1,008.33	1,104,525.92
Dec	1.00%	0.09%	0.91%	1,115,571.18	1,017.49	1,114,553.69
12-Month	12.68%		11.47%	Sum of Mthly Fees	11,623.41	
Linked Monthly Fees		1.10%		If apply annual fee to average mthly value	1.10%	11,681.90
GOF-NOF	1.22%				1.22%	12,903.66

Table 2

VE = the value of the portfolio at the end of each month.
GOF = Gross-of-fee return
NOF = Net-of-fee return.

The annual gross (12.68%) and net (11.47%) returns differ by 1.22 percent. And so, you can perhaps understand why the client might be curious to know if they’re supposedly being charged an annual fee of 1.10% why the difference is so much larger: are they perhaps paying too high a fee?

The table also shows the monthly fees, which total 11,623.41 for the year. If we were to apply the 1.10% fee to the average monthly value we would get 11,681.90, which is quite close to what the client was charged (11,623.41). However, if the client were right and we were actually charging 1.22%, then applying it to the average monthly value would yield 12,903.66, which is significantly higher than what they were actually charged. Is this enough to convince them? Perhaps not, so let’s look at another example.

Our second example is shown in Table 3.

5 This value is arrived at by raising the annual fee plus one to the 1/12th power, and then subtracting one. I suspect that many firms simply divide by 12, which gets you pretty close to the right number; the differences are not material, though what I am doing is a bit more accurate.

Here we are using a monthly gross-of-fee return of 5.00 percent.

	GOF	Fee	NOF	VE	Fee	Net VE
Jan	5.00%	0.09%	4.91%	1,050,000.00	957.68	1,049,042.32
Feb	5.00%	0.09%	4.91%	1,101,494.43	1,004.65	1,100,489.79
Mar	5.00%	0.09%	4.91%	1,155,514.28	1,053.92	1,154,460.36
Apr	5.00%	0.09%	4.91%	1,212,183.38	1,105.61	1,211,077.77
May	5.00%	0.09%	4.91%	1,271,631.66	1,159.83	1,270,471.83
Jun	5.00%	0.09%	4.91%	1,333,995.42	1,216.71	1,332,778.72
Jul	5.00%	0.09%	4.91%	1,399,417.65	1,276.38	1,398,141.28
Aug	5.00%	0.09%	4.91%	1,468,048.34	1,338.97	1,466,709.37
Sep	5.00%	0.09%	4.91%	1,540,044.83	1,404.64	1,538,640.19
Oct	5.00%	0.09%	4.91%	1,615,572.20	1,473.53	1,614,098.68
Nov	5.00%	0.09%	4.91%	1,694,803.61	1,545.79	1,693,257.82
Dec	5.00%	0.09%	4.91%	1,777,920.71	1,621.60	1,776,299.11
12-Month	79.59%		77.72%	Sum of Mthly Fees	15,159.30	
Linked Monthly Fees		1.10%		If apply annual fee to	1.10%	15,235.57
GOF-NOF	1.86%			average mthly value	1.86%	25,804.03

Table 3

The table is laid out the same as Table 2, so we can first se that the difference between the gross-of-fee and net-of-fee returns is much higher: 1.86 percent. The series of 12 monthly returns of 5.00% grow much quicker than that of the 4.91% net-of-fee returns, thus giving us this larger difference.

Again, we apply both the annual fee (1.10%) and the GOF-NOF(1.86%) values to the average monthly value. Again, we see that the value derived using the stated fee (1.10%) yields a result (15,235.57) which is quite close to the sum of the monthly fees (15,159.30), while the result using the GOF-NOF difference (25,804.03) is quite different.

One more example: here, we'll use a negative GOF return (-5.00%) for each month (Table 4).

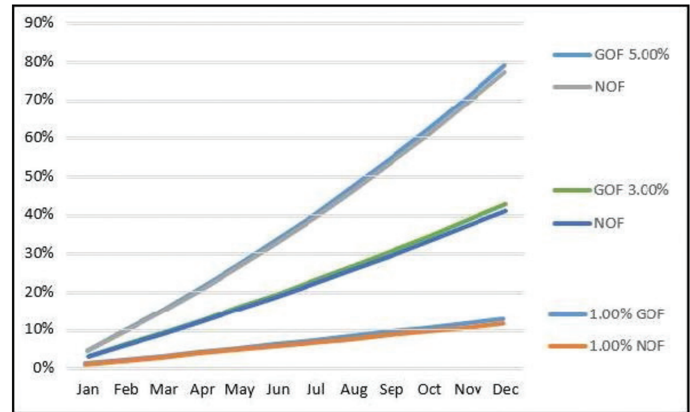
	GOF	Fee	NOF	VE	Fee	Net VE
Jan	-5.00%	0.09%	-5.09%	950,000.00	866.47	949,133.53
Feb	-5.00%	0.09%	-5.09%	901,676.85	822.40	900,854.45
Mar	-5.00%	0.09%	-5.09%	855,811.73	780.57	855,031.16
Apr	-5.00%	0.09%	-5.09%	812,279.60	740.86	811,538.74
May	-5.00%	0.09%	-5.09%	770,961.81	703.18	770,258.63
Jun	-5.00%	0.09%	-5.09%	731,745.70	667.41	731,078.29
Jul	-5.00%	0.09%	-5.09%	694,524.37	633.46	693,890.91
Aug	-5.00%	0.09%	-5.09%	659,196.37	601.24	658,595.13
Sep	-5.00%	0.09%	-5.09%	625,665.37	570.66	625,094.72
Oct	-5.00%	0.09%	-5.09%	593,839.98	541.63	593,298.35
Nov	-5.00%	0.09%	-5.09%	563,633.44	514.08	563,119.36
Dec	-5.00%	0.09%	-5.09%	534,963.39	487.93	534,475.46
12-Month	-45.96%		-46.58%	Sum of Mthly Fees	7,929.87	
Linked Monthly Fees		1.10%		If apply annual fee to	1.10%	7,969.77
GOF-NOF	0.62%			average mthly value	0.62%	4,486.77

Table 4

When we subtract the monthly fee to derive our monthly net-of-fee return it's a larger negative (although a smaller value) (-5.09%) than the GOF return. Our difference this time is much smaller (0.62%). We apply this value as well as our stated annual fee to the average monthly value and again get results that confirm that the difference in now way reflects an undercharge or difference in what the actual fee is.

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.



Fred R. Barnard is credited with saying "a picture is worth a thousand words." And so, let's look at a picture. And so, let's consider the accompanying figure.

I've graphed the gross- and net-of-fee returns where the monthly values are 1.00%, 3.00%, and 5.00 percent. As you can see, the higher the return, the steeper the line, the faster the compound-ing. Hopefully this further conveys the reason behind the difference.

Have some other thoughts on this? Please let us know. Thanks!

TRAVEL TIP: SHOULD YOU TAKE ADVANTAGE OF THE "FUEL PURCHASE OPTION"?

There's a great deal of talk today about whether certain segments of the investment community within the United States (e.g., brokerage firms) should become fiduciaries. Understandably, it's somewhat controversial.

As a "fiduciary," the rep would have to commit to putting the interests of his/her client first. This can be difficult to do when you're peddling stock with a questionable future direction.

I think we often assume that those who serve us are acting in the manner of a fiduciary: that is, we will frequently put our trust in them. Think about what occurs at a restaurant when you ask for a wine idea, or whether the server would recommend one dessert over another.

It occurred to me quite some time ago that we may also put our trust in the attendant at the car rental agency who is the last to see us before we depart the lot, onward to our appointed destination. I've been a customer of Hertz for a few decades now, and so am most familiar with their approach, though I suspect others are similar.

Just before I'm ready to leave I'm asked "would you like to take advantage of our fuel purchase option (FPO)?" My wife, who travels a great deal less than I do, informed me of something she had read one time that advised the car rental customer not to. I had never done so, but then became a bit more educated as a result of her guidance.

What's the "fuel purchase option"? Well, the two benefits are that (a) you do not have to fill up the tank when you return the car, saving the hassle of finding a gas station.

And (b) you get a slight discount on the price of the gas that Hertz (or presumably the others) would charge.

So, what's the downside? Well, there are two detractors: (a) the price of the gas is a premium over what you could spend on the street; the standard, non FPO price as well as the discount for those who take advantage of the option. But (b) is the real zinger: you are buying a WHOLE tank of gas! The only way you would come even close to making out is if when you return they have to push you the last 50 yards or so, because you actually did use the entire tank. And even here, you'll be paying for the full tank at an inflated price.

Do not trust the attendant, whatever he/she says. Because, they also fail in regards to "full disclosure": they get a bonus each time they manage to convince an unsuspecting motorist into taking advantage of the option.

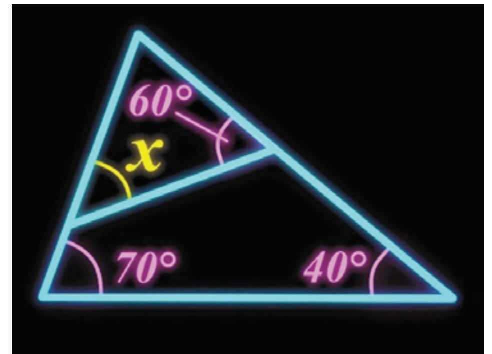
In a sense it's like playing black jack at a casino. There are often options available as you play. You can put a side bet that says that if you happen to match the dealer's first up card, you'll be rewarded. Or, if your two cards are the same, you'll get an additional win. The odds are NEVER good for the gambler, and it pays NEVER to take these side bets.

Well, the fuel purchase option is NEVER good, unless (a) you know that you will, in fact, be able to use virtually the entire tank and (b) there is no way that you will be able to "fill up" before returning the car, in which case you'll save a few bucks between the dealer's standard inflated price and the fuel FPO's less (though still) inflated price. Learn from my wife: she's usually right

PUZZLE TIME

February puzzle

The accompanying graphic provides last month's puzzle, which came from "I Love Mathematics" on Facebook. The astute reader will notice that I've enhanced it a bit from last month, by labeling the angles; this will make communications a bit easier.



It has been over 50 years since I've been asked to do such a puzzle, and was pleased that I solved it, not just once, but twice (meaning there are at least two methods to get to a solution![6]). Hope you can solve it, too! Oh, in case it isn't clear, what's "x"?

After I first saw this I actually reflected on it in my head while trying to solve it. At first glance, perhaps because of the semi-century since I last had to deal with such things, it appeared more difficult than it is. And so, how do we solve it?

6 I mistakenly wrote that there were two solutions, but Anthony Howland pointed out my error, for which I am grateful. Not two solutions, only one, but two ways to get it.

March Puzzle

Okay, we had geometry, so how about some algebra?

If $3x - 2 = 7$, then $4x =$

(A) 3

(B) 5

(C) $\frac{20}{3}$

(D) 9

(E) 12

A key to both solutions is to recall two things:

- The sum of the three angles of a triangle always equals 180 degrees.
- When a straight line is intersected by another line, and we know one of the angles that result, the other will always equal 180 degrees minus the known angle.

Okay, so what do we have here? A small triangle (CEF) embedded within a large one (ABC).

Solution #1

This is actually the more difficult of the two, but was how I first attempted it (my motto is apparently "why do it the easy way when the more difficult's available?").

We see that line FE intersects line BC, and that the angle FEC is 60 degrees. Recalling that the line BEC must be 180 degrees means that the angle FEB must be 120 degrees. And why would we care about this?

Well, the sum of the four angles in the quadrilateral ABEF must equal 360%. And now that we know the value of angle FEB, we can sum it with the other two we have (120 + 70 + 40 = 230). That means that angle AFE must be 360 - 230 or 130. And so its complimentary angle (x) has to be 180 - 130 or 50 degrees.

Solution #2

And this is the easy way (which didn't occur to me until after I took the long way.

Angle CAB is 70 degrees; angle ABC is 40 degrees. Knowing that the sum of triangle ABC's three angles must be 180 degrees, we can find angle ACB by subtracting the sum of the two we have from 180 (180 - (70 + 40) = 70). We now have two of the three angles that make up triangle CEF, so angle x must be 180 - (70 + 60) = 50 degrees.

That wasn't so hard, right?

Michael Greis was the first to respond correctly and offered the following:

Perhaps geometry is out of fashion....or maybe just not perceived as useful in finance (hard to argue with that, I guess). But since the internal angles of a triangle must add up to 180 degrees, angle x is 50°. Alternately, the angle opposite the 60° angle must be 120°, since together they encompass a straight line. That gives you three angles of a quadrilateral (70°, 40° and 120°), making the fourth angle 130° (four internal angles of a quadrilateral = 360°. Since that angle plus x must equal 180° (the straight line again), x must be 50°.

Nice to see that he took two paths, too!

Others who succeeded in finding the solution:

- Debi Deyo Rossi
- Tom Stapleton
- Jon Gordon
- Neil Riddles
- Dave Lehrer
- Hans Braker
- Chris Spaulding *(my older son!)*
- Anthony Howland.

Kind of funny that I gave the answer away, sort of, by mentioning that it had been over 50 years since I had last done geometry!

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

DATE	EVENT	LOCATION
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	erformance Measurement Attribution	New Brunswick, NJ

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

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