## Compounding Returns Part 2: Net-of-Fee Return



This blog is the second part of our Compounding Returns series. You can check out Part 1 here.

Have you ever wondered why the gross-of-fee return (GOF) minus the annual fee percent doesn't equal net-of-fee (NOF) return? The simple answer is compounding. Let's take a look at some examples to show how compounding can cause a difference between GOF's and NOF's.

The first example we will look at will have monthly returns of $0 \%$ and an annual fee of $2 \%$.

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The difference between GOF and NOF is $1.98 \%$. This is lower than the $2 \%$ fee, because the value of the portfolio is going down due to fees being taken out each month. Therefore, it appears that the client didn't pay $2 \%$ in fees, but instead only 1.98\%.

If we take the monthly average value of $\$ 99,088$ and multiple that by $1.98 \%$ we get $\$ 1,964$. This is less than the actual fee amount the portfolio paid. When multiplying the monthly average by $2 \%$ we end up with $\$ 1,982$, which is the same amount the portfolio paid showing that the portfolio did pay $2 \%$ worth of fees.

Now let's look at and example that has a monthly return of $1 \%$ with the same annual fee of $2 \%$.

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Monthly Average Balance $=\$ 104,713$
$2.21 \%$ fee difference $* \$ 104,713=\$ 2,315$
$2 \%$ Fee $* \$ 104,713=\$ 2,094$
The final example is to show that the higher the return the bigger the difference will be between GOF's and NOF's. This time we will use a $5 \%$ monthly return with the same $2 \%$ annual fee.

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Monthly Average Balance $=\$ 131,370$
$3.39 \%$ fee difference $* \$ 131,370=\$ 4,445$
$2 \%$ Fee * $\$ 131,370=\$ 2,627$
As we can see, the closer that the period return is to zero the more in sync the annual fee percent will be to the difference of the gross and net returns.

The farther the return is from zero, the bigger the difference the annual fee percent will be to the difference of the gross and net returns. The reason for this fluctuation is because higher returns will compound quicker.

Even though the GOF and NOF difference isn't the same as the annual fee amount, the portfolio is truly paying the annual fee amount that it was assigned to pay.

If you have any questions about the content covered in today's article, please contact our SME Performance Team via the online chat in your Orion Social app.

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