



## The 'Flaw of Averages'

When you are checking out some new investment and you read that it has 6% annual return since 1954, do you ever wonder if it's real? I mean, really real? Let's begin by understanding the many different ways in which returns are being reported by reviewing an easy example. I invested \$10 in a mutual fund three years ago. The first year it went up 30% (\$3) and had a year-end value of \$13. The second year it went up 40% (\$5.20) with a year-end value of \$18.20. This last year this investment lost 50% (\$9.10) and has a current value of \$9.10. I go on-line and find that the mutual fund company is reporting a 3-year return number of 6.66% during this time. So the real question is this – how can I have less money than when I started and still have them tell me I made over 6% per year? The issue lies in the method by which the fund company calculates and reports these performance returns. We all know looking at the example that I lost \$0.90 of my original principal in the last 3 years. Even to me this comes out to negative performance since I got in. Not 6.66%. Because the fund company simply averages the yearly returns for these 3 years; they somehow 'magically' paint a different picture on how I have done. Their math  $(30+40-50)/3$  shows an average annual return of 6.66%. Obviously quite misleading. The truth is I lost money in this mutual fund. The correct (honest) way to report performance is in using a compound annual growth rate (CAGR) in measuring investment returns. This would present an entirely different view of how I have done. Here is how the example should look. The basic math (current value - starting value/3) or  $(\$9.10 - \$10.00)/3$ . This is where I get a compound annual growth return of -0.03% for the last three years. Do your homework – check to make sure you understand what the companies are reporting to you. Stay away from investment firms that paint the rosy picture because it looks better; knowing that it really disguises the facts.

Using a simple average return calculation (the arithmetic mean) is deceiving when used to report client investment returns over longer periods of time. Ask for the geometric mean or Compound Annual Growth Rate (CAGR) when checking out investments over long period of time. Get the facts.

Keep in mind that the CAGR does not, however, factor in any type of risk. More on this later...

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