

## **Performance Gap – Difference between CTA returns and client returns**

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## Background on the study:

I recently noticed a number of established CTAs suffering a substantial loss of assets, while at the same time, I noticed many of these same firms experiencing new highs in performance. I thought it would be interesting to look at how the clients' timing of asset additions and withdrawals affects the returns they experience.

First I went to [www.traderscan.com](http://www.traderscan.com) and downloaded the returns and asset levels of every CTA that had a 5 year minimum track record and had over 75 million dollars under management sometime in that 5 year period. There were 27 established CTAs managing, at their peak over 5.9 billion dollars of the industry's allocations.

## Three measures of performance:

Next, I used the returns and asset levels to calculate how many dollars had to be added or withdrawn each month to make the returns and asset levels check with each other. To compare the actual returns the CTA generated to the returns experienced by the clients of that CTA, I used time-weighted and dollar-weighted return calculations. Time-weighted returns are what CTAs use to calculate their CFTC-style standard VAMIs. Dollar weighted returns are based on how many dollars the clients added to their accounts compared to how many dollars the clients took out of their accounts plus any current dollars left in the program.

If dollars are added during drawdowns and withdrawn during surges, the dollar-weighted returns will be much better than the time-weighted returns, since the client is not suffering the drawdowns as much as the buy-and-hold client would. On the other hand, poor timing by the client on adding or withdrawing assets to a CTA program would make the time-weighted return better as clients added to their accounts near the top of a surge, then suffered a decline, then pulled out assets and missed the next run up.

In addition to the two returns already mentioned, I decided to add a simple asset allocation strategy to compare what it would have done during the test period. I simply withdrew any profits from each CTA program at the end of each month and added back in any losses. This kept the CTA programs at a constant dollar level and served to cut back the account after producing a profit while forcing the investor to buy into drawdowns.

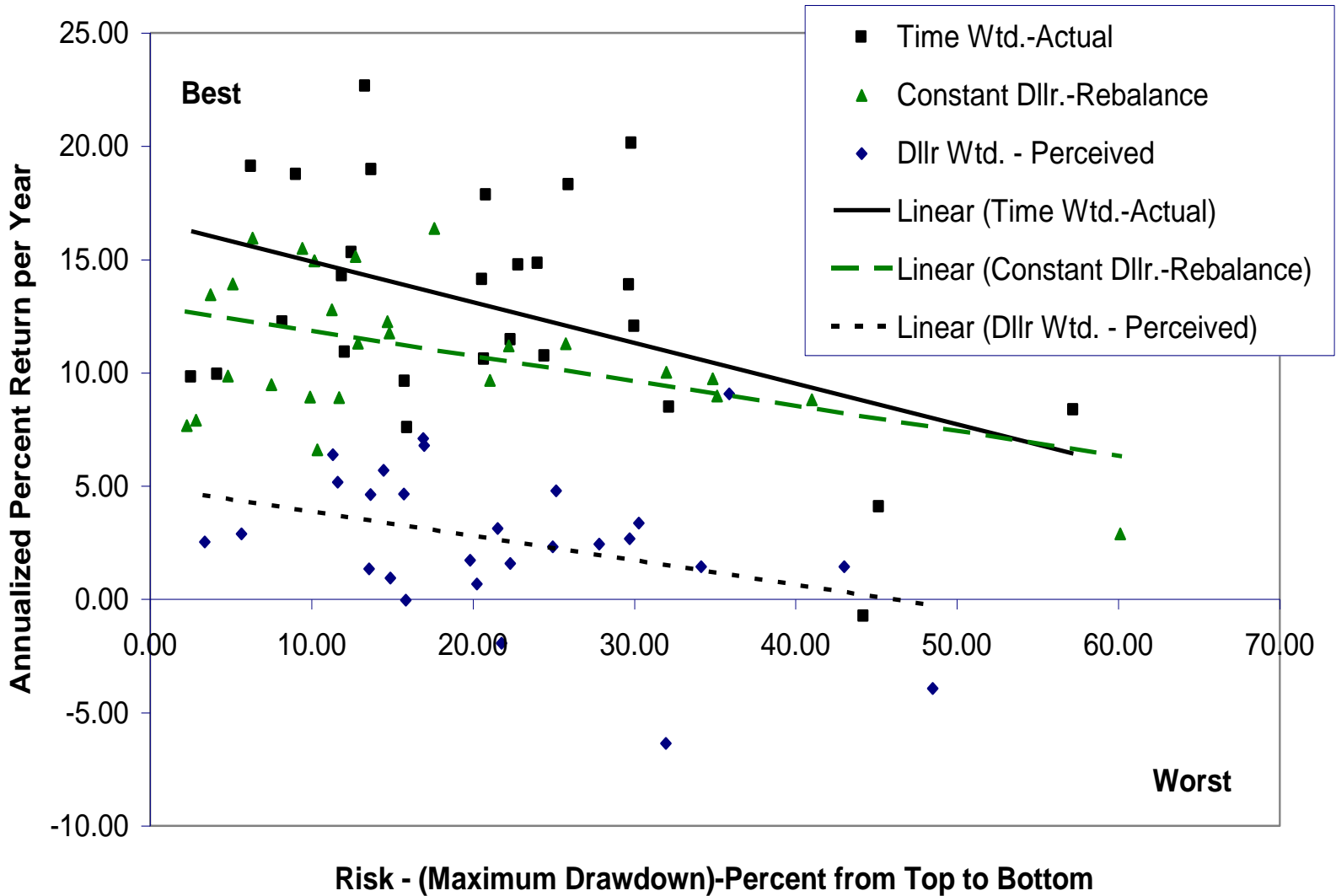
## Results: Client timing hurt returns:

The results were as I expected. Client additions and withdrawals to 27 of the largest CTAs in the industry have actually hurt the dollars of profit they received over simply buying-and-holding or running a constant dollar allocation program. The results, plotted in Figure 1 show return and risk scatter diagrams for all three approaches. The upper left part of the graph is the best place to operate since it gives the investor high returns with low risk. The lower right is the worst, with poor returns and high risk. Clearly, most of the data points in the upper left

are from the time-weighted and constant dollar return cases. In every program measured, the time-weighted returns and the constant dollar were higher than the dollar weighted returns. In addition, for every program measured, the dollar-weighted return to risk ratios clients saw were less than both the time-weighted and constant dollar return to risk ratios.

**Figure 1**

**Performance - Perception versus Reality (10/93-11/98)**



Performance now near new highs; assets decline:

From the peak of assets in these programs of about 5.9 billion dollars, the current assets have fallen to a collective 3.8 billion dollars, a decline of 35.6%. One specific program saw a decline in assets of over 97% during this period. This while 74% of the CTA programs are

within 10% of all time highs at the end of November, 1998. Almost 15% of the programs were making new highs on the last month of data!

Table 1 below shows the data specifications as well as some of the important points learned from the study. The best return to risk was achieved by simply withdrawing the profits and adding assets on a monthly basis during the drawdowns. The average 1.24 return to risk ratio in the constant dollar case was greater than both the time-weighted return to risk the CTA provided or the dollar-weighted return to risk the clients achieved through poor timing.

### Table – 1

#### Specifications/Summary - Allocation Study of CTA's

##### Specifications

Source of data	www.traderscan.com
Number of CTA programs used in the study	27 programs
Minimum amount of assets at maximum level	75 million
Minimum length of available data required	5 years
Number of programs hitting maximum assets	5 programs

##### Assets have plummeted:

Total Maximum Assets in programs-5 years	\$5,918,659,164
Total Current Assets in all programs - 11/98	\$3,811,406,910
Percent decline in Total assets from peak	-35.60 percent
Maximum amount in a single program at peak	\$1,112,200,000
Minimum amount in a single program at peak	\$78,411,797
Maximum % decline in assets, single program	97.18 percent

##### While performance is near or at all-time highs:

Percent of programs with 10% of new highs	74.07 percent
Percent of programs with 5% of new highs	48.15 percent
Percent of programs at all-time highs	14.81 percent

##### Actual Time-Weighted Returns better than Client Allocated Dollar-Weighted Returns:

Average Time-Weighted Return	12.88 percent
Average Time-Weighted Drawdown	21.31 percent
Average Time-Weighted Return to Risk	1.01 ratio
Average Dollar-Weighted Return	2.61 percent
Average Dollar-Weighted Drawdown	21.90 percent
Average Dollar-Weighted Return to Risk	0.19 ratio

##### Rebalancing to a Constant Dollar Amount gets most of Time-Weighted Returns:

Average Constant Dollar Return	11.12 percent
Average Constant Dollar Drawdown	16.69 percent
Average Constant Dollar Return to Risk	1.24 ratio

Study prepared by Tom Basso, Trendstat Capital Management, Inc.

## An easy way to improve client performance :

**The study clearly shows that in all of the 27 largest CTAs studied over the last five years, the returns generated by the CTA were greater than those received by those CTAs' clients.** From my experience the traders are not in control of when clients wish to startup or shut down an account. Buying and holding a well established CTA is one possible answer. Amounts could be rebalanced amongst various traders to achieved more stable and improved return to risk ratios (see previous MAR issue).

**A better way to improve return to risk is to simply lighten up on CTAs after big surges and add leverage and and/or assets during drawdowns.** Clients will say, "But when do we cut losses and run?" I believe the answer to that lies in where the CTAs profits come from. If a systematic trend-following CTA generates profits when markets move significantly (previous MAR issue), then if markets are not moving very much, clients should expect losses. Unless the client believes that markets will no longer move, then it's just a matter of time until the markets bust loose as they did in the 3<sup>rd</sup> quarter of 1998 and provide the next opportunity to take some assets out of the account.

I say it's easy, but, it goes against human nature to add to a drawdown or to take assets from a trader that is producing a huge profit. CTA's have had to learn how to do that with markets to be successful and keep portfolios balanced. Clients must learn how to do it with multi-trader portfolios to improve the returns and the return to risk ratios they receive. This study should help provide some justification for giving it a try.

Tom Basso is CEO of Trendstat Capital Management, Inc, which is a Scottsdale, AZ hedge fund manager and CTA managing 300 million dollars for clients in a variety of markets.