

# SHOULD YOU BUY, HOLD, OR FOLD A DRAWDOWN IN MANAGED FUTURES?

April 26, 2010

We've been long overdue in writing this newsletter, the subject of which a client put to us in our 'Topics Survey' several months ago. He wanted to see some statistics behind our incessant recommendations that he invest into this program or that because it was in drawdown. His request:

*"take a basket of managers with long term records (good and bad) and run two hypo portfolios on them - one a static investment (compounded) over the period, the other adding at given drawdown points (e.g. at 2/3 of worst drawdown level). The results could certainly be instructive (so long as we include poor CTAs to avoid survivorship bias), and give me a little more confidence in investing in good programs during drawdowns".*

We're never one to turn down a client (or a research project), but we had an issue getting good data on closed, or dead, programs to include in the testing so as not to introduce a survivorship bias. You see, while he was thinking the research would give him more confidence in good programs during drawdowns – our concern was more on the effect of investing in bad programs during DDs.

Essentially, if you make a habit out of investing in drawdowns, how often does that program never come back. How often do you get in at a bargain, only to see the program continue lower? That was the real question in our minds.

So, we set to work getting our hands on some dead programs. But not just any old programs; we wanted to include the former high flyers, so that we were including those programs likely to have been in client portfolios at the time they were being set up. What we ended up with was 25 different managed futures programs with 1235 months of data between them spanning from June 1998 through January of 2010.

While most in the industry either ignore or outright hide this data, we're looking at incorporating it into many of our reports and research initiatives to better address survivorship bias in our data. Survivorship bias is when an index or collection of data is skewed towards the best performing members over time, because the worst performing stop reporting their numbers when they hit hard times, or even cease running their business amidst a large drawdown.

Attain's library of "dead" managed futures programs will continue to grow, and include those programs which ceased operations or cease to report their numbers. We're even looking at giving website users an option on our online portfolio builder to "add a blow up" to their portfolio to really stress test the portfolio.

But enough about bad programs – the client wanted good ones in there too, and there are many more programs which are alive and well. So armed with our Attain watch list of approximately 50 good managers and 25 dead ones, we set out to answer the age old question of what to do when faced with a drawdown.

We've all been there - with a formerly high flying managed futures program suddenly in a new Max Drawdown and looking like it won't ever see another winner. You see the past DD eclipsed, get upset at yourself for chasing the programs high returns xx months ago, and then stare up at a list of the new top ranked CTAs wondering if it would be better to switch into those. Our culture is ripe with sayings about cutting your losses, and backing a winner, and so forth which lead to our inclination to get out of that which is causing us pain and into that which gives us hope.

**Unfortunately, the cut losers short and back a winner mindset can wreak havoc on a portfolio. Just recall how all of the multi-market programs struggled in 2005 and 2006, leading investors to switch into the low volatility loving option selling programs heading into 2007. No sooner had assets under management hit new highs amongst option sellers than volatility began its now notorious spike lasting from Feb. 2007 through the end of 2008, causing serious losses for option sellers. And who did well when volatility spiked – the same multi-market managers many investors dumped to get into the option selling programs. Entering 2009, the same thing happened in reverse, as investors rotated out of option selling managers into multi-market programs with volatility at all time highs; only to see volatility come back to its 2007 levels, benefitting option sellers and causing losses (mostly) for multi-market programs.**

After living through this multi-year cycle with our clients, we're trying our best to help investors break out of that same old 'in at the highs, out at the lows' negative feedback loop 90% (my estimate) of investors are trapped in.

Our portfolio runs today are a step in that direction, in that they attempt to answer whether buying into drawdowns is advantageous, what the effect of getting out at a set line in the sand is, and whether either are better than the old buy and hold mantra put forward by your stock broker.

In poker parlance, do we fold, call, or raise when faced with a drawdown in one of the programs in our portfolio. To test this, we first came up with a method for selecting our portfolio, and went with a simple approach of using the past 12 months Sharpe ratio to select our portfolio components. We assumed the portfolio was equally weighted, meaning the same amount of nominal funds were traded on each; and we put one restriction on our selection process in that we would not allow more than two option selling programs in the portfolio.

We ran the past 12 month Sharpe ratio rankings as of the end of December 2001 for trading to begin in January 2002; and came up with a nice looking portfolio of Chesapeake, Rosetta, Meyer Capital Mgmt., LJM Partners, and Zenith Resources. Our portfolio contained two long term multi-market traders, a spread Ag trader, and two option selling managers.

The interesting thing with this portfolio, right off the bat, is that three of its components are now in the 'dead' managers library; meaning we'll be certain to have both good and bad programs in the mix.

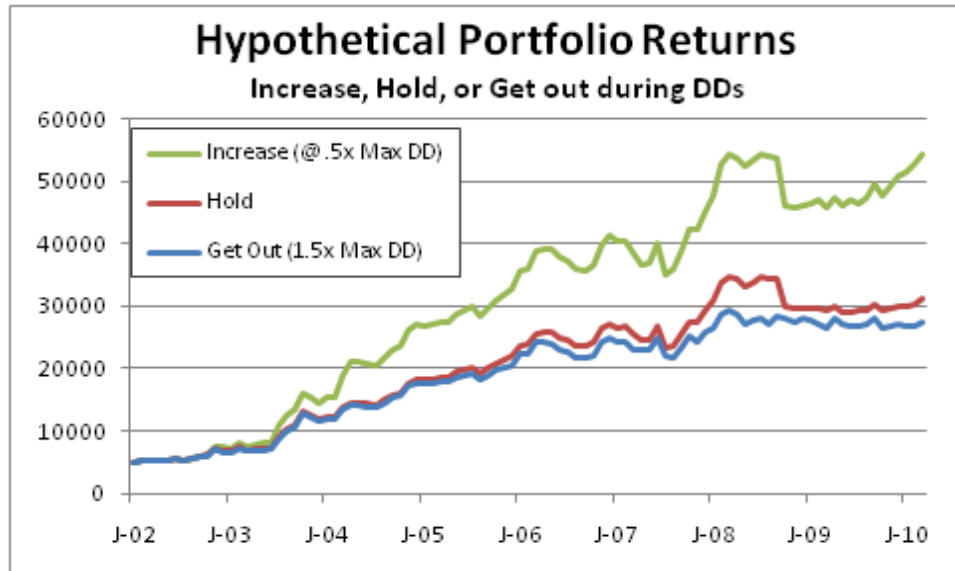
We first tested the 'normal' performance, compounding each manager's returns individually, and then summing the performance of each (you can't sum the returns and compound the total, as each manager is only trading the portion of the total allocated to them, and isn't increasing or decreasing positions based on the movements of the overall portfolio). This is the hold tight, or 'call' method, where you rely on the portfolio as a whole to protect you against drawdowns in individual managers.

We then tested the 'fold' method, whereby you set a line in the sand at 1.5 times max drawdown, exit the program if that level is hit, and then replace it with the program showing the highest past 12 month Sharpe ratio that is not already traded or has been traded. This method resulted in 7 different programs coming into the portfolio over the 8 year period, as three of the original programs hit their lines in the sand; and four of the replacement programs hit their stop points. We started this portfolio with even weightings for each manager, and then used that same initial weighting for a replacement program if it was replacing a program which had lost money; and used the current allocation of the program being replaced if it had made money since inception.

Finally, we tested the 'raise' method, where you don't just sit tight and you don't head for the exits; you actually stare down the drawdown and increase your allocation. For this method, we tested using 50% of the past historical drawdown and 100% of the past historical drawdown as trigger points for doubling the allocation to whichever manager hit those drawdown levels. We also

assumed this double allocation was only done until the program returned to equity highs, and that it was done with no extra capital - only with an increase in the nominal trading amount.

**Our results were interesting, with the increase during drawdowns method outperforming the hold method and get out method. The Get out method surely suffered more from what it got back into than what it got out of, but it is telling that the worst performing method was getting out of programs at new max drawdowns and into ones at new equity highs.**



This test does suffer from a few problems. First, there is quite a skew towards the Rosetta program in these results, as that program's now seemingly impossible approx. 90%, 50%, and 30% (twice) monthly returns across a 16 month period in 2002 and 2003 [past performance is not necessarily indicative of future results] pushed that program to an allocation between 3 and 10 times the other programs. Secondly, two of the programs no longer report results, leading to the flatter performance lately.

But we wanted the possibility of so called 'bad' programs in our test so that we could see what would happen if we doubled the allocation of these programs which ended up simply heading lower and never coming back. The effect of these closures on the portfolio was little to none, however; showing perhaps that it is more important to have a solid base to the portfolio (such as Rosetta and Chesapeake in this portfolio) which can hold the portfolio up even with failed bets doubling up exposure during a drawdown.

To correct for any biases the start date and initial programs could have caused, we ran the test several more times with start dates of January 2003, 2004, 2005, and 2006 to insure different programs were picked each time using the same past 12 month Sharpe ratio. The result was 13 different programs among the starting five across our five different portfolio start dates.

The results across the different start dates were as follows. As expected, the return was higher in each portfolio which increased allocations when the current drawdown hit 1/2 of the historical drawdown level. The drawdown was lower in only two of three cases, but the extra return more than made up for that as can be seen when comparing the MAR ratios of each (MAR = Comp ROR/Max DD).

**Hypothetical Portfolio Performance:**

Comp ROR	Normal (Hold during DD)	Increase (at .5x Max DD)	+/-

Jan '02 - Mar '10	24.80%	<b>33.56%</b>	35.30%
Jan '03 - Mar '10	14.83%	<b>24.75%</b>	66.94%
Jan '04 - Mar '10	3.40%	<b>7.32%</b>	115.23%
Jan '05 - Mar '10	6.08%	<b>11.23%</b>	84.76%
Jan '06 - Mar '10	8.41%	<b>20.91%</b>	148.70%
<i>Averages</i>	11.50%	<b>19.55%</b>	90.18%

<u>Max DD</u>	Normal (Hold during DD)	Increase (at .5x Max DD)	+/-
Jan '02 - Mar '10	-16.46%	<b>-15.77%</b>	4.22%
Jan '03 - Mar '10	-20.50%	<b>-18.54%</b>	9.53%
Jan '04 - Mar '10	<b>-18.62%</b>	-26.67%	-43.25%
Jan '05 - Mar '10	<b>-21.64%</b>	-25.85%	-19.47%
Jan '06 - Mar '10	<b>-22.37%</b>	-18.64%	16.67%
<i>Average</i>	<b>-19.92%</b>	-21.09%	-6.46%

<u>MAR</u>	Normal (Hold during DD)	Increase (at .5x Max DD)	+/-
Jan '02 - Mar '10	1.51	<b>2.13</b>	41.26%
Jan '03 - Mar '10	0.72	<b>1.33</b>	84.52%
Jan '04 - Mar '10	0.18	<b>0.27</b>	50.25%
Jan '05 - Mar '10	0.28	<b>0.43</b>	54.65%
Jan '06 - Mar '10	0.38	<b>1.12</b>	198.46%
	0.61	<b>1.06</b>	85.83%

All in all, it looks like adding to your investment during a drawdown can improve risk adjusted performance. We do still recommend having a line in the sand to protect your sanity – and wallet – for when things do go bad. But let the ‘Get Out’ graph in the chart above be proof that just because you are forced out at the lows, that doesn’t mean you need to get into the next program at the highs. Be patient in waiting for that next program entry, and try to time it just right – getting in during the drawdown.

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