Study of Momentum on Long-only and Short-only Investments – Peer Review

Osama Iqbal
iqbal.osama@icloud.com

Abstract

The primary objective of the paper tends to study the effect of momentum on long-only and short-only investments. It tries to bust the myth that momentum cannot be captured by long-only investments, and that momentum is something that can only be exploited by a short-only portfolio. The aforementioned paper tries to find evidence that the myth is not true, but there is nothing concrete that proves this.

Keywords: *Momentum, risk, MFI, KST, ROC, technical analysis*

1. Summary

The paper's aim is to analyze the myth pertaining to short-only and long-only momentum trading, trying to concretely establish that momentum is exploitable by long-only, with certain evidence. The paper goes on to define factor models for analysis of sources of risk and return in portfolios. It then goes on to analyze the technical factor, specifically momentum, in more detail in order to bust the aforementioned myth. In order to do so, it uses three indicators, that is, the MFI (money flow index), Know Sure Thing (KST) and Rate of Change (ROC). It asses the performance based on Return, Sharpe ratio and Fitness. It then simulates the three indicators in Websim in order to devise a conclusion, which states that the myth cannot be concretely busted.

2. Strengths

The main objective of the paper is bust the myth about momentum and long-only portfolios. In order to do so, it applies a very systematic approach to the problem, by initially defining a quantitative portfolio and puts under observance three algorithms, and defines what those algorithms are. It then goes on to define metrics that can be used to determine the "fitness" of these indicators against long-only and short-only portfolios, after which a simulation is run on Websim. This indicates a complete end-to-end observance of the hypothesis, which ends up providing concrete evidence about the indicators. It also defines long-only and short-only but symbolic representation such as the positive and negative sign. This makes the paper easier to read and understand.

It makes use of MFI (money flow index), defines what it is, and gives proper source of the indicator. The MFI is known for its consistency in leaving traditional price action and is well suited for spotting reversals. KST (Know Sure Thing) is useful when considering overbought and oversold conditions as an indicator. ROC (Rate of Change) indicator can be used as both a trend strength indicator as well as a divergence one.

The Websim simulations and its output give assertions to the authors conclusion appropriately.

3. Weaknesses

A set of three algorithms may not be decisive enough to lead to a conclusion. The conclusion, hence possibly achieves this mid-ground instead of a binary one (that is, whether it is a myth or not). By casting a wider net, one may end up having a more concrete solution to the problem at hand. It could also do with some more analysis parameters to add a more holistic overview. Also, citation may be needed for the first paragraph under the section "Quantitative Equity Portfolio", for referencing recent work.

MFI as an indicator for bull-and-bear trends is weaker when compared to the RSI (relative strength index). KST should be used carefully as it has lag inherently built in. ROC's calculations give equal weight to more recent prices. Every indicator has a built in inherent weakness and its own strength. This could potentially lead to skewed analysis, unless the weakness of one indicator is offset by an indicator equally strong in the weak area.

4. Opportunities

Construction of a portfolio using UMD would be of great help. UMD stands for "up-minus-down" represents a portfolio that is long stocks that have high relative past one-year returns and short stocks that have low relative past one-year returns to capture "momentum." One could use the Kennith French's data in order to get more factors, and the data is readily available. UMD factor is long winners and short losers. By taking Kennith-French's UMD data, we have the following table that indicates there is little difference in long and short portfolios

Sample	UMD market-adjusted returns				UMD returns minus market			
	Short side	Long side	UMD	% Long	Short side	Long side	UMD	% Long
1927 - 2013	5.1%	5.5%	10.6%	51.8%	2.2%	6.1%	8.3%	73.6%
1963 - 2013	3.8%	5.3%	9.1%	57.8%	2.5%	5.9%	8.4%	70.1%
1991 - 2013	3.8%	4.8%	8.7%	56.0%	1.1%	5.2%	6.3%	83.3%

By exploring this angle and using a different dataset, we can then end up getting something that could help us in strongly accepting or rejecting the myth.

5. Threats

By restricting the dataset to only the Websim universe, we are essentially discarding data constructed on such lines such as that of the Kennith-French data, that already has calculated factors. These could potentially lead to analysis from a single perspective, presenting a picture that may be skewed to one side of the result. Using more factors would be desirable, such as SMB and HML to give a better overview.

References

1. https://www.investopedia.com/ask/answers/121214/what-are-main-differences-and-similarities-between-money-flow-index-mfi-relative-strength-index-rsi.asp
2. https://www.tradingview.com/wiki/Know_Sure_Thing_(KST)
3. https://www.investopedia.com/terms/p/pricerateofchange.asp
4. https://business.nasdaq.com/media/Fact_Fiction_and_Momentum_Investing_Israel_Frazzini_Moskowitz_and_Asness_tcm5044-42326.pdf
5. http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html