IS THERE GOOD NEWS IN SHORT INTEREST? SOME INTERNATIONAL EVIDENCE.

ABSTRACT

Is there good news in short interest? Some international evidence, is a PhD situated in the field of finance looking to investigate short interest, market returns and the characteristics of short sellers. Short interest is characterized as the number of shares sold short of a stock currently open in the market. This PhD hopes to answer the following questions:

1) In adjusting for risk, Boehmer et al. (2010) use the Fama and French (1993) three-factor model augmented by the momentum factor. However, is there good news to short interest if a different and more recent model, such as Fama and French (2015) five-factor model, is used to adjust for risk premium?
2) After the publication of Boehmer et al. (2010), does the opportunity for excess returns remain, or have investors adapted this strategy and arbitraged away the excess returns?
3) Is there good news in short interest if the strategy is applied to other countries, e.g., 34 OECD countries?
4) Whether and to what extent short sales affect liquidity, price discovery, volatility and cross-section of stock returns?
5) Are short sellers informed traders? Is there evidence that short sellers engage in market manipulation?

THEORETICAL APPROACH

Fama French Regression Analysis

Question 1 to question 5 of our research will be answered using a Fama and French Regression Analysis. We will be constructing portfolios of heavily and lightly shorted stocks based on the short interest ratio on the previous month. We will run a regression analysis on our datasets using our respective models for each of these portfolios. We will then observe the Fama and French factor weights for equal weighted portfolios and observe what drives the returns for these portfolios and whether any excess return remains.

Non Parametric Wilcoxon Matched Pairs Signed Test

Question 4 can be answered using a non-parametric Wilcoxon matched pairs signed test, this method allows us to compare pre and post ban data on liquidity, volatility, price discovery and cross section of stock returns.

GARCH Model

A GARCH (1,1) model can be employed to see if short sellers are informed as a relationship between short selling and price volatility will show that if short sellers are informed then they are trading on the news that is available to them and they are not engaging in market manipulation. This will be the basis for Question 5.

GOING FORWARD

We are going forward by asking Questions 4 and Question 5 going forward. The question 4 asks whether short sellers are informed or not and the question 5 asks whether or not the strategy of going long the least shorted stocks and going short the most shorted stocks is valid.

REFERENCES


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NOVELTY OF THIS PHD

The novelty of this PhD is firstly the model employed to answer our first research question. Boehmer et al. (2010) use a Fama French Three Factor Model with Momentum to test for Risk Premium. We use the Fama French Five Factor Model to test this instead. We need to see if the findings of Boehmer et al. (2010) are consistent with our model which seems to predict fair returns better. We also employ newer data sets in our second research question while testing an arbitrage opportunity of Boehmer et al. (2010). We will also be the first to test across international data sets in our third research question as the focus of finance is usually centered around the United States. We will also be providing further data in the debate of whether short sales affect liquidity, volatility, price discovery and cross section of stock returns. Finally, we will be providing further data on the debate on whether short sellers are informed or whether they engage in market manipulation.

RESULTS SO FAR

Regarding research question 1, we look at whether the strategy of Boehmer et al. (2010) is still valid for a new and more efficient model such as the Fama and French Five Factor Model. The original research was conducted using the Fama and French Three Factor Model with Momentum. We find that the most heavily shorted stocks underperform slightly shorted stocks. The Fama and French Five Factor model holds a higher positive alpha on both lightly shorted portfolios compared to their heavily shorted counterparts. The intercepts on the lightly shorted portfolio being 0.025 and 0.018 for the 5% and 10% portfolios respectively compared to the intercepts of 0.012 and 0.002 for the 5% and 10% portfolios respectively. Both lightly shorted portfolios hold a much higher return of 2.3% and 2.1% for the 5% and 10% portfolios respectively compared to 1.9% and 1.5% for the 5% and 10% portfolios respectively. There is good news in short interest with the Fama and French Five Factor Model, however we suggest going long the top 5% portfolios as the less heavily shorted portfolio has a negative raw or excess return.

Regarding research question 2, we ask at what period after the publication of Boehmer et al. (2010) arbitrage has taken place or not and whether the strategy of going long the least shorted stocks and going short the most shorted stocks is valid. We find that the most heavily shorted stocks underperform the most lightly shorted stocks by 0.9% in a month on a raw return basis. This is consistent across our findings, with the underperformance of heavily shorted stocks. The original study by Boehmer et al. (2010) was to go long the top percentile portfolio and go short the bottom percentile portfolio. We find that our 5% percentile portfolio holds a positive average return of 2.7, a significant return, therefore it is advisable to have a short component in your strategy. Our findings suggest that it is best to go long the 5% portfolio, as this provides the best raw return and risk adjusted alpha out of all the portfolios.

Regarding research question 3, we look at whether the findings of Boehmer et al. (2010) are applicable to other countries in international data sets. For this question, we use Canada as a proxy for the OECD label, given the vast availability of short interest from the Toronto Stock Exchange. Short Interest Data is difficult to obtain for smaller markets across large datasets. Our results indicate again that heavily shorted securities underperform their lightly shorted counterparts. We find that the most heavily shorted stocks underperform the most lightly shorted stocks by 1.5% a month on a raw return basis. This is consistent with our findings in research question 2 and consistent with the previous literature as a whole. However again we find that our 5% portfolio yields a positive raw return of 3.1% a month on average, which indicates that it is not viable to have a strategy that includes a short component. Our findings suggest that it is best to go long the least shorted stocks and therefore go long the 5% portfolio.