ALGORITHMIC TRADING USING SHORT INTEREST AS THE PRIMARY TRADING SIGNAL

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A new study by CMCRC researchers James Melouney and Dr. Matthew Clifton report that a trading strategy based on short-selling information can be used to develop several stock portfolios, achieving annual returns ranging from 0.2118% to 6.3015% after transaction costs. Short-selling refers to the selling of stocks one does not currently own and subsequently purchasing them to close or cover the position, allowing individuals to profit from downturns in stock prices. Many have argued that short-selling plays a role in price discovery and consequently can be used as a signal for future price performance.

Sampling data from July 1, 2010 to April 30, 2012 for Australian Securities Exchange listed firms, 12 unique portfolios were analysed using the Alluvial Trading Platform. Honours student James Melouney, from the University of Wollongong, defined these 12 portfolios by the number of long positions (stocks purchased), the number of short positions (stocks short-sold), stock entry rules (when to buy and when to short-sell) and stock exit rules (when to sell a long position and when to cover a short position), for each portfolio. The tradable stock universe included any stock listed on the ASX that met liquidity and risk criteria set out as: tradable through IG Markets, a share price greater than 30 cents, average trading volume greater than 10,000 and weekly price volatility of less than 20%. Each stock was then ranked in descending order based on their daily level of short interest, referred to as the 'ranked list'.

Two strategies were investigated – a 'basic' strategy and an 'event driven' strategy. Under the basic strategy a set number of stocks were always held (either 10 or 20), half of which were long positions and half short positions. On the first day of short-selling the top 5 stocks in the 'ranked list' were short-sold and the bottom 5 were purchased, for a portfolio of size 10. Short positions were subsequently exited if they fell below the top Y places in the 'ranked list' and long positions were exited if they moved above the bottom Y places in the 'ranked list', for a given Y being 20, 40 or 80 depending on the portfolio in question. When a position was exited, the next best stock, as determined by the 'ranked list' for that day, was entered into. The event driven strategy is similar to the basic strategy except a maximum portfolio size was set and stocks were only entered if they had high enough (top 1%) or low enough (bottom 1%) short interest.

Using information from the 12 portfolios, an `Ideal' portfolio was created, which achieved an annual return of 8.8010%. In comparison, the ASX 200 Index over the same 22 month period had an annual return of 2.0319%. Consequently, the annual return of the Ideal portfolio was 333% greater than the return of the ASX 200 Index. This considerable difference confirmed the suspected relationship between short-selling and future stock prices.