

Canadian Small Cap Equity Strategy

Our simulations show that a momentum selection model on Canadian small cap stocks can generate an excess return in the range of 8% to 12% per annum. Unfortunately, small cap stocks are illiquid, so transaction costs can eliminate excess returns. The questions are:

1. Is there a way to manage a momentum portfolio of Canadian small caps that would limit transaction costs, thereby generating sufficient excess return?
2. What is the maximum amount that can be managed in this way while generating a good excess return?

The model

The momentum model used is based on monthly stock price fluctuations 'purified' of the variations of US crude oil. The training period used is 10 months and the holding period is 6 months to reduce the volume of transactions. There are therefore 6 sub-portfolios. The model selects equities from the 85th percentile to the 90th percentile in terms of market capitalization in the universe of Canadian securities, representing approximately 300 stocks with a capitalization ranging from 186M to 1.2B.

The portfolio

Our portfolio of Canadian shares is registered with a discount broker and amounts to \$300,000 CAD. The portfolio began in February 2018. It holds an average of 30 securities and trades approximately 12 per month (purchases and sales). The turnover of the portfolio is approximately 115%.

The results

The following table shows the results up to January 2019. The table first compares the returns over the last three quarters of 2018 for the median of small cap managers, TSX Small Cap and TSX Composite. The data is fairly comparable although small caps are more volatile than the TSX and underperformed during the market downturn, especially in Q4.

The portfolio does not have the same return as the model on a quarterly basis. The delay between the end of the month, the rebalancing of the model and the moment when the portfolio is really rebalanced is one of the probable causes. The biggest difference between the portfolio and its model is observable in Q3, the portfolio then underperforming by 5%. This underperformance is consistent with the discount broker transition that took place in September, the portfolio could not be rebalanced in the month, accounting for a monthly difference of -3.8%. The outperformance of the model in the fourth quarter is puzzling. The cash position, which was then 6%, only partially explains this difference.

	Q1	Q2	Q3	Q4	last 3Q of 2018	Jan
Managers Median	NA	4.3	-0.6	-15.3	-11.8%	NA
S&P TSX Small TR	NA	6.6	-2.8	-14.4	-11.3%	7.7
TSX Comp. TR	NA	6.8	-0.6	-10.1	-4.6%	8.7
Smallcap Portfolio	NA	3.1	-0.7	-6.8	-4.6%	5.8
Purified Momentum Model	NA	5.1	4.2	-9.2	-0.5%	5.9
	NA	-2.0%	-5.0%	2.3%	-4.2%	-0.2%

The next step

We need to know why the portfolio outperformed in Q4. Is it because we could not sell outperforming stocks in the last rebalancing? Secondly, we can begin to analyze our transaction costs. If these studies are successful, we could increase the investment to \$ 500,000 or \$ 600,000 in the portfolio.

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