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TRADING & QUANTITATIVE RESEARCH REPORT

SPINOFFS

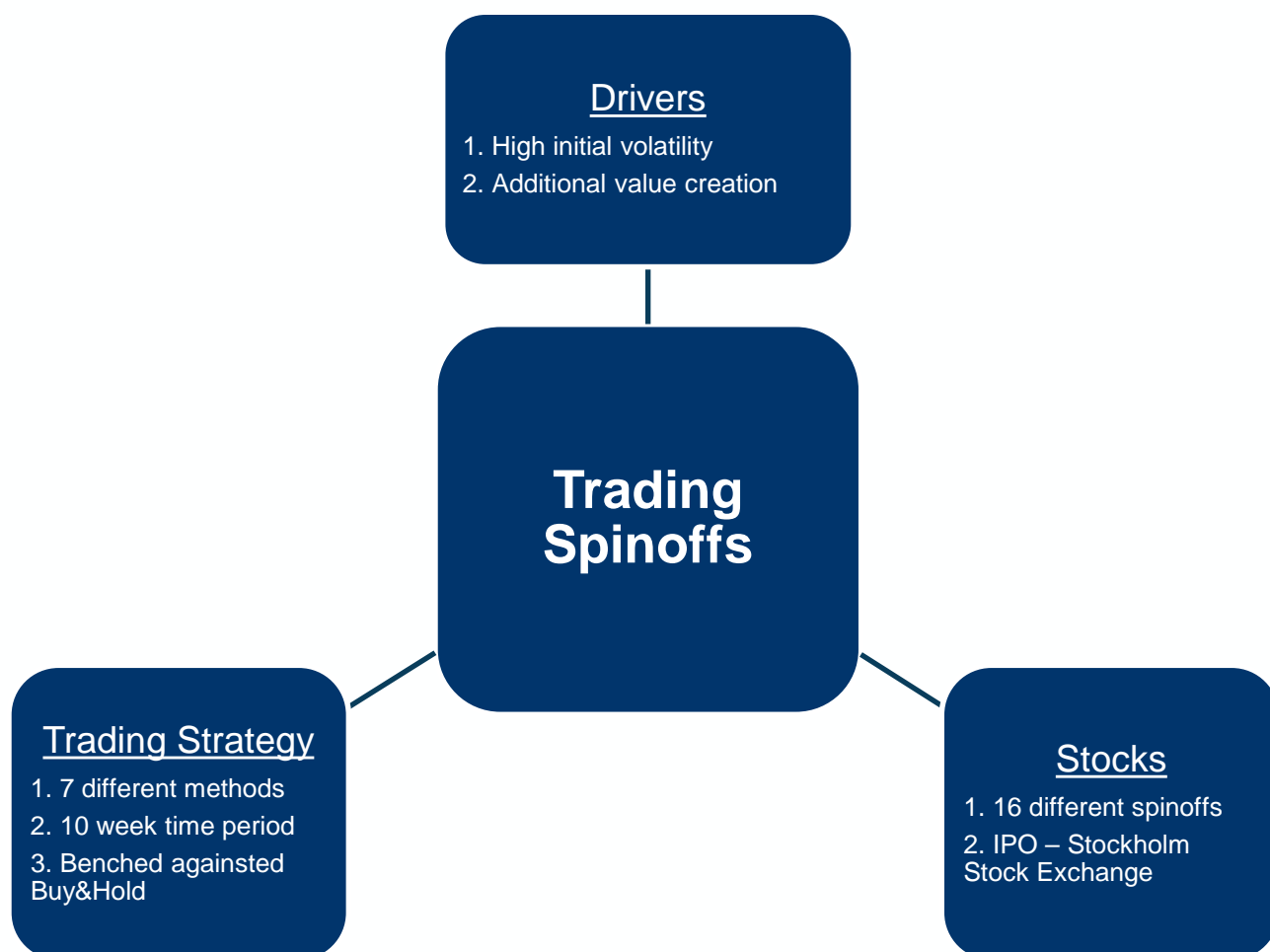
Trading Spinoffs

TRADING SPINOFFS

Executive Summary:

The article will discuss spinoffs on the Stockholm Stock Exchange as well as presenting historic performances for 16 different spinoffs. The aim of the article is to research as to how possible uncertainties in the initial price setting as well as future performance on spinoffs could be used for trading. In addition, a strategy for trading spinoffs for the primary 10 weeks of trading on the stock exchange will be presented. Through testing, seven initial trading methods were narrowed down to one premiere trading method. This method generated a total return of 502.40 percent, outperforming buying and holding the stocks for ten weeks in 13 out of 16 cases, while maintaining a low beta of 0.72. The method also generated a Sharpe Ratio of 1.52.

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Introduction

Spinoffs are a common phenomena among businesses, created through the sale or distribution of new shares of an existing business or division of a parent company. Recent research suggests that spinoffs are expected to have a higher worth as individual entities than as parts of the major business and are therefore higher valued on the Stockmarket. However, uncertainties in both the offering price setting and the future performance of spinoffs have a tendency to create volatility in the price, a tendency which has been seen as historically profitable. This volatility could be utilized and create opportunities within trading.

The purpose of this report is to analyse the historic performance of several spinoffs on the Stockholm Stock Exchange from IPO and forth to determine if a statistical edge could be given from uncertainties in the initial price setting and future performance of the stocks. Furthermore, the report will also analyse possible trades and how they should be taken as well as the potential risks

SPINOFFS

Spinoff	Date of spinoff	Market Capital (MSEK)
Filo Mining Corp.	2016-09-06	1 110.4
AddLife	2016-03-16	5 095.7
Bonava	2016-06-09	12 020.0
Epiroc B	2018-06-18	90 287.0
Alcadon Group	2016-09-14	504.09
Essity B	2017-06-15	163 678.0
Momentum Group	2017-06-21	325.3
Arjo	2017-12-12	84 16.2
EnQuest	2010-04-04	4 524.1
Qliro	2010-12-15	1 785.5
DistIT	2011-04-19	458.12
Dedicare	2011-05-04	451.0
Concentric	2011-06-16	4 995.9
AGES industri	2014-05-16	497.7
Kambi Group Plc	2014-06-02	6 818.3
Veoneer	2018-07-02	25 775.0

Method

Data on 19 different spinoffs, performed during the last 10 years, have been gathered and their performance since IPO has been analysed. Since the study is focusing on the Swedish market, all of the spinoffs selected, are listed on the Stockholm Stock Exchange.

Furthermore, the report is focusing on a trading perspective by using the potential initial volatility as an edge. Therefore, the study has been limited to a timeframe of 10 weeks from IPO since the volatility is the highest in the initial weeks and then stabilises over time.

In addition to this, for a more precise comparison, only the b-stocks of the listed companies have been taken into consideration in the measures and A-stocks for 3 companies have been removed, since these stocks have a high correlation to the B-stocks and thus would provide a double result on a company, which have a risk of causing a double negative or positive result on these specific stocks and angling the study and creating unnecessary uncertainties in our analysis. Lastly, three additional stocks were removed because of lacking the sufficient frequency in data needed for the analysis.

Trading strategy

Initially seven different trading methods were created to be implemented on the first ten weeks of trading for the spinoffs. The methods differed on how buy and sell signals are generated. Each method has the same initial investing capital. All trades are taken in the same way for each method, purchase the stock at the primary “buy-signal” and sell at the next “sell-signal”, this is repeated. After each individual trade is completed the return is reinvested. Each method will be tested on every spinoff.

Exhibit 1: Analysed spinoffs, date of spinoff and today's market capital.
Source: LINC

Strategies

- **Method 1:** the spinoff is bought when the price drops below one standard deviation under the 5 hour moving average (MA). The “sell-signal” is when the price rises above one standard deviation over the average for all previous prices opposed to a moving average.
- **Method 2:** buy as the price drops below one standard deviation under a 10 hour MA and sell as the price rises above one standard deviation over a 5 hour MA.
- **Method 3:** buy as the price drops below one standard deviation under a 10 hour MA and sell as the price rises above one standard deviation over a 5 hour MA.
- **Method 4:** buy as the price drops below 1.5 standard deviation under a 5 hour MA and sell as the price rises above 1.5 standard deviation over a 5 hour MA.
- **Method 5:** buy as the price drops below two standard deviation under a 10 hour MA and sell as the price rises above two standard deviation over a 10 hour MA.
- **Method 6:** buy as the price drops below 1.5 standard deviation under a 10 hour MA and sell as the price rises above 1.5 standard deviation over a 10 hour MA.
- **Method 7:** buy as the price drops below two standard deviations under a 10 hour MA and sell as the price rises above two standard deviations over a 10 hour MA.

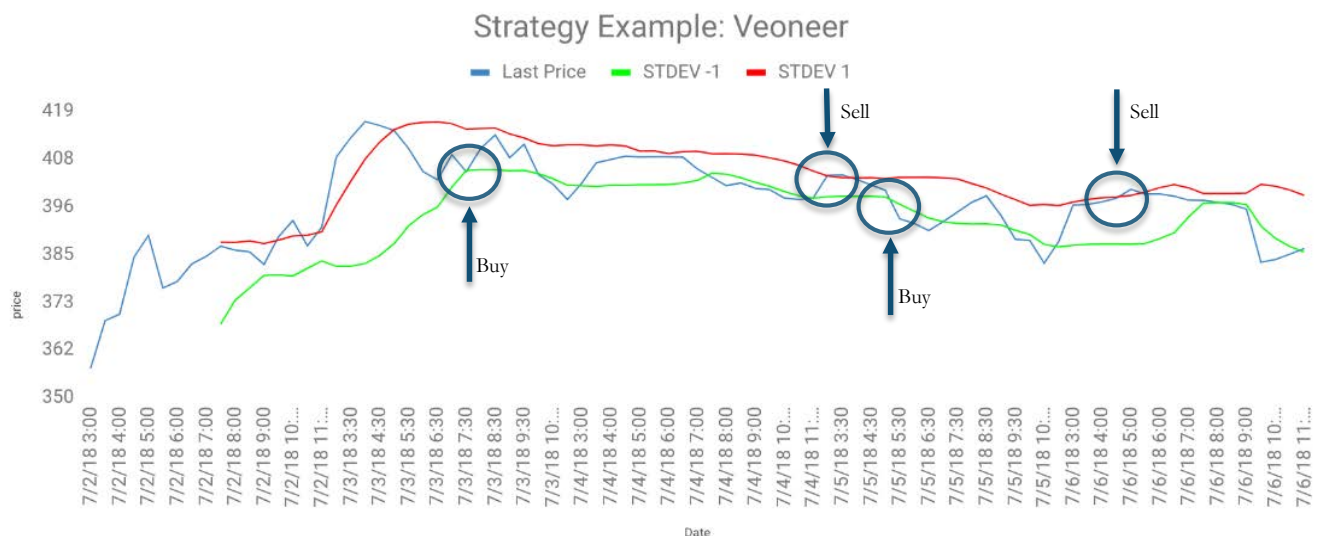


Exhibit 2: A visual representation of how the strategies operate. Method 3's performance during the first week of trading for Veoneer.

DRIVERS AND RISKS

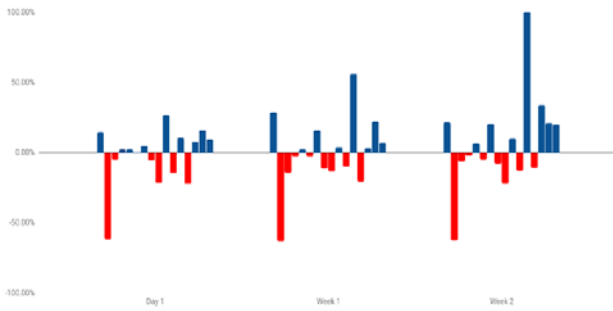


Exhibit 3: Performance for 16 spinoffs on Nasdaq Stockholm from introduction day to second week closing.
Source: Bloomberg

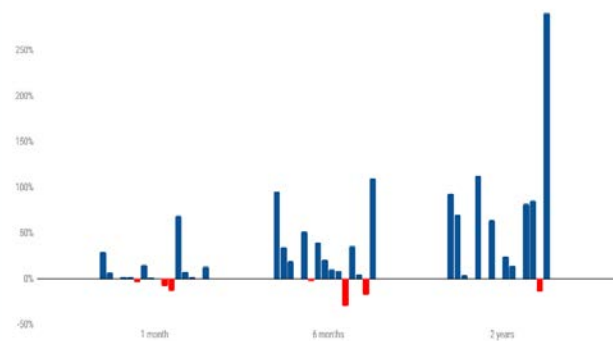


Exhibit 4: Performance for 16 spinoffs on Nasdaq Stockholm from introduction day and one month to two years forth.
Source: Nordnet

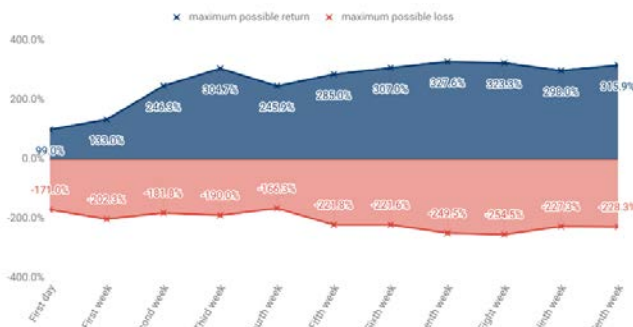


Exhibit 5: Maximum possible return compared to maximum possible loss of the first day through the tenth week of trading, when purchasing on opening on day 1 and selling after one week, two weeks, etc.

Drivers

Research argues that uncertainty in pricing spinoffs leads to increased volatility in the initial period after IPO. As seen in exhibit 3 with high volatility for a majority of the companies, with ALIF plunging over 50% on the first day while DEDI rose over 100% in just two weeks time. This volatility and stock drops is attributed to mainly four different main factors:

- **Index Selling:** If the parent firm was a member of an index, such as the S&P 500, the spun-off entity likely is not. Index funds and institutional investors will sell the spun-off shares when they do not meet their fund mandates. Which also is applicable for the OMX30 as the Swedish Stock Exchanges follow the American.
- **Ownership Criteria:** The new owners of the firm (investors who received the spun-off shares), now own a firm that they never purchased. The spun-off firm may not meet their investment criteria. The parent may be a large-cap firm, while the spin-off a small- or mid-cap firm. The investor may decide to sell the new spin-off shares.
- **Limited History:** Available financial information may not be complete. Investors may wait to see how the spin-off fares on its own before investing. And thus the limited knowledge will benefit the more daring and prepared investors.
- **Low Analyst Coverage:** Coverage from banks is significantly less for the spin-off versus the parent firm. Affecting the knowledge of less involved traders.

However, spinoffs are also argued to create more value for the market and the company, through higher incite to rapid growth as well as an increased focus on specialized product areas and market segments.

This effect combined with other factors such as the increase of trading history as well as analyst coverage can be seen in exhibit 4 with negative sides fading over time and majority of companies having rapid positive growth after 6 months. Acting as drivers to take the trade on spinoffs in an early stage.

Potential risks

- High possible downsides and volatility in the beginning of trade. Stop losses to hedge against further losses are essential. The average standard deviation for all trades in each stock and method is 3.5%. Considering this, a suitable stop loss would be set at about 4%.
- Since spinoffs are generally smaller and younger companies with large uncertainty regarding performance and value, as previously mentioned, this makes them more susceptible to macro trends. This is acknowledged and the most effective method of countering this is by implementing a stop-loss. Better to short when the macro trends go bearish. With this in mind, the trading methods presented in this report should be seen as a compliment to fundamental analysis and trading and therefore used in combination.

RESULTS

	Buy & Hold (B&H)	Method 1	Method 2	Method 3
Return	122.70%	661.60%	342.10%	502.40%
Average return	7.67%	41.35%	21.38%	31.40%
Sharpe Ratio	0.33	2.02	1.02	1.52
Beta	1	1.52	0.67	0.72
Number of positive returns	9	16	14	13
Number of negative returns	7	0	2	3
Number of times outperforming B&H	N/A	14	13	13
Number of times underperforming B&H	N/A	2	3	3

Exhibit 6: Performance over ten weeks for methods 1, 2 and 3 and Buy & Hold.

	Method 4	Method 5	Method 6	Method 7
Return	385.00%	270.70%	193.80%	131.60%
Average return	24.06%	16.92%	12.11%	8.22%
Sharpe Ratio	1.15	0.8	0.56	0.36
Beta	0.58	0.23	0.42	0.27
Number of positive returns	12	13	11	9
Number of negative returns	4	3	5	7
Number of times outperforming B&H	12	10	9	6
Number of times underperforming B&H	4	6	7	10

Exhibit 7: Performance over ten weeks for methods 4, 5, 6 and 7.

● Positive trades ● Neutral trades ● Negative trades

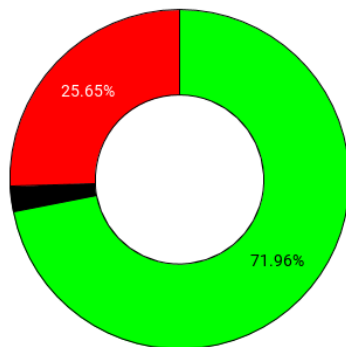


Exhibit 8: Distribution of positive, negative and neutral trades for Method. 3.

Results

The seven methods are compared to purchasing the spinoff on opening day and selling after ten weeks. All methods generated higher returns than the “Buy & hold” method. The total return of every method is presented in Exhibit 6 and Exhibit 7. Also presented is the average return, Sharpe Ratio, Beta, number of positive and negative returns and number of times each method performed better and worse than than the “Buy & hold” method.

Another comparison to be made is that of each methods number of winning and losing performances for each stock as well as number of performances that are better or worse than the “Buy & hold”-method. With this performance in mind the first three method are the primary candidates for being the optimal trading strategy.

To determine the most reliable method out of the seven, Sharpe ratio, beta (compared to Buy & hold), total return and average return for each method and stock is calculated. A beta below 1 is considered good and a Sharpe ratio above 1 is considered good. These measurements, along with the return and average return, is compared for each method in an attempt to isolate an optimal trading method of the seven. Despite method 1:s clear advantage in return and Sharpe ratio, its high beta reduces its reliability, with the general volatility of spinoffs already being high. Method 3 has a large generated return, great Sharpe ratio and a beta below 1, generally outperforming the other methods and is thus the recommended method for trading in spinoffs.

Conclusion

If the recommended method, number 3, is utilized on the primary 10 weeks on the 16 studied stocks the total return is 502.4%. In total method 3 executed 430 trades over the primary ten weeks in the 16 spinoffs, with 71.96% gaining positive return, 25.65% gaining negative returns and 2.39% of trades neither gaining positive or negative return. The greatest return of a single trade for method 3 was 11.10% and the worst return of a single trade was -10.42%. Method 3 was able to maintain positive gross return in nine out of the ten weeks with the greatest week generating a return of 128.69% during the tenth week. The only week to generate a negative gross return was the fourth week, with a loss of -2.29%.

Although the methods outperformed the Buy & Hold method in most cases, no method outperformed it in all. With this in mind the methods should be used as a compliment to a fundamental analysis of the spinoff prior to contemplating using any method.

In the future a logical next steps would be to further develop strategies of similar manner in attempt to optimize the return with minimal risk. Achieving this would then generate a great opportunity to attempt to implement the strategies in a automatic trading system to further back test the methods and ideally bringing the system live. In addition to this research can be conducted in an attempt to discover other uncertainties which can be exploited with similar methods to this presented in this report. For the system to be profitable on future spinoffs an effective stop loss has to be implemented which takes in account future data for other spinoffs as well as previous trades for the stock in question. To further study spinoffs it is possible to branch out e.g. analyze spinoffs in North America, Asia and the rest of Europe.

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