A Guide to the Insider Buying Investment Strategy

A Catalyst Research Report for Advisors and Investors

Corporate executives and Wall Street insiders have taken advantage of their privileged status for years. The SEC requires corporate insiders to disclose all of their personal transactions in their own company stock. Investing in firms with insider buying significantly outperforms the market.

All insiders at firms that are regulated by the Securities and Exchange Commission (SEC) are legally required to file a Form 4 listing their insider purchases and sales within two days following any insider transaction. Because corporate insiders know their companies better than anyone else, they have a huge trading advantage. Peter Lynch explains, "*Insiders might sell their shares for any number of reasons, but they buy them for only one: they think the price will rise*". An insider buying investment strategy involves carefully monitoring these SEC filings to find unusual clusters of insider buys in open market transactions. Insider cluster buying is a situation where multiple officers and directors at a company they manage each individually buy at least 1,000 shares of stock in a single quarter. Stocks that are experiencing cluster buying have been shown to significantly outperform the market, on average, in the coming year. Researchers at Wharton, Harvard, University of Michigan, and University of Chicago have performed in-depth research that concludes that insider buying by the top officers at publicly traded companies empirically outperforms the market indices. Furthermore, technical back testing using insider buying data from 2003 to 2010 confirms these academic findings. Exhibit 1 displays the cumulative effect of buying stocks that have experienced insider buying in the most recent month. Exhibit 2 displays the one-year returns of stocks that have experienced significant insider buying each month.

Exhibit 1: Performance of a $10,000 investment (Insider Buying vs Market)

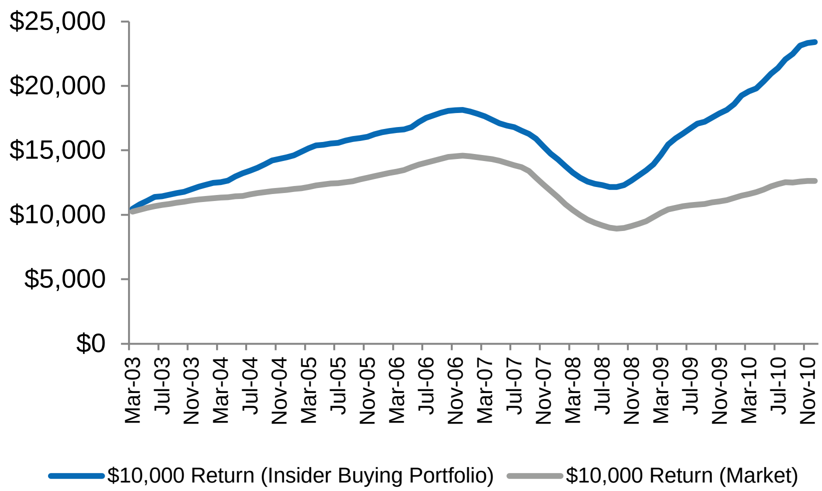
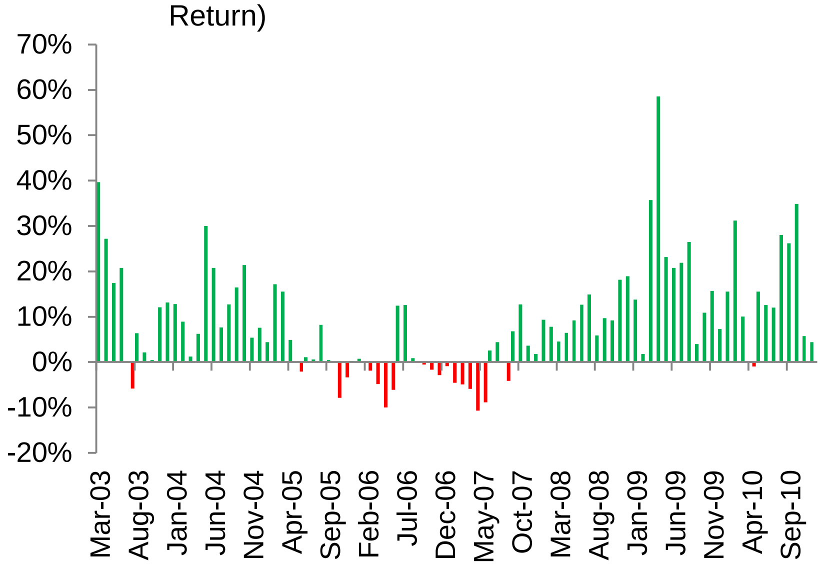


Exhibit 2: Monthly difference (Insider Buying Return - Market Return)



Insider Buying Clarification

Legal: when corporate insiders buy and sell stock in their own companies according to SEC regulations.

Illegal: buying or selling a security, in breach of fiduciary duty or other relationship of trust and confidence, while in possession of material, nonpublic information about the security.

Investing based on analysis of insider buying is legal.

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Analysis of Insiders

Insiders include large shareholders, directors, officers, and top executives. Large shareholders are defined by an ownership greater than 10% for any equity class. Directors include insiders who sit on the board of directors. Officers, including top executives, are responsible for the day-to-day decisions of the firm. Insiders trade for a variety of reasons. Based on their everyday interaction with the firm, insiders generally have a very good understanding of supply and demand for the product or service of the firm. Because it is not illegal to trade on long-term outlook, insiders may also choose to purchase shares if they believe the firm is undervalued by the market. Similarly, insiders may sell shares if they believe the firm is overvalued by the market. However, insiders also sell for a variety of other reasons, including liquidity, portfolio diversification, and estate and tax planning.

Broad Approach

Academic findings conclude that investing based solely on insider buying and selling outperforms in the long run. Table 1 displays one-year returns for the market (equally-weighted portfolio of NYSE, AMEX, and NASDAQ) and firms with insider buying and selling. The Following Insider Buying column represents the returns recognized from investing in firms with insider buying while the Following Insider Selling column represents the losses avoided by not investing in firms with insider selling. The Net (+/- Market) columns represent the returns compared to the performance of the market portfolio. Over the twenty year period, the insider buying strategy (going long following insider buying and short following insider selling) outperformed

Table 1: One-year returns for firms with insider buying and selling compared to market

Year	One-year Returns				
	Market Following Insider Trading	**Following Insider Buying**	**Net (+/- Market) Following Insider Buying**	**Following Insider Selling**	**Net (+/- Market) Following Insider Selling**
1975	40.8%	42.6%	1.8%	30.0%	-10.8%
1976	18.8%	26.8%	8.0%	13.3%	-5.5%
1977	27.6%	34.5%	6.9%	25.6%	-2.0%
1978	26.7%	29.2%	2.5%	22.5%	-4.2%
1979	29.1%	28.5%	-0.6%	33.5%	4.4%
1980	26.7%	30.2%	3.5%	25.8%	-0.9%
1981	1.4%	5.8%	4.4%	-2.2%	-3.6%
1982	63.5%	61.4%	-2.1%	64.0%	0.5%
1983	1.8%	5.9%	4.1%	-9.6%	-11.4%
1984	17.8%	24.6%	6.8%	15.5%	-2.3%
1985	23.7%	30.7%	7.0%	23.0%	-0.7%
1986	13.7%	11.6%	-2.1%	9.9%	-3.8%
1987	-0.2%	2.9%	3.1%	-6.9%	-6.7%
1988	17.4%	20.1%	2.7%	15.0%	-2.4%
1989	-9.0%	-9.5%	-0.5%	-5.8%	3.2%
1990	18.8%	24.4%	5.6%	24.1%	5.3%
1991	21.2%	22.0%	0.8%	21.0%	-0.2%
1992	21.5%	35.0%	13.5%	17.3%	-4.2%
1993	7.8%	12.8%	5.0%	4.2%	-3.6%
1994	-1.3%	1.7%	3.0%	-2.9%	-1.6%
Average	**18.4%**	**22.1%**	**3.7%**	**15.9%**	**-2.5%**
Source: H.Nejat Seyhun, "Investment Intelligence from Insider Trading", The MIT Press, 1998.					

the market portfolio. Additional information can be used to refine this approach to further increase returns. Using back test data from March 2003 until December 2010, one-year insider buying portfolio returns were calculated and compared to one-year market returns for each month. By performing a two-sample t-Test, it was demonstrated with statistical significance that an equally-weighted portfolio of firms with insider buying outperforms. Exhibit 3 displays the t-Test output data for the 94 months analyzed.

Exhibit 3: Statistical analysis of insider buying back test data

t-Test: Two-Sample	*Insider Buying Portfolio Return*	*Market Return*
Mean	14.23%	4.91%
Variance	0.061	0.034
Observations	94	94
Pooled Variance	0.048	
Hypothesized Mean Difference	0.000	
df	186	
t Stat	2.923	
P(T<=t) one-tail	0.002	*Statistically Significant*
t Critical one-tail	1.653	
P(T<=t) two-tail	0.004	
t Critical two-tail	1.973	

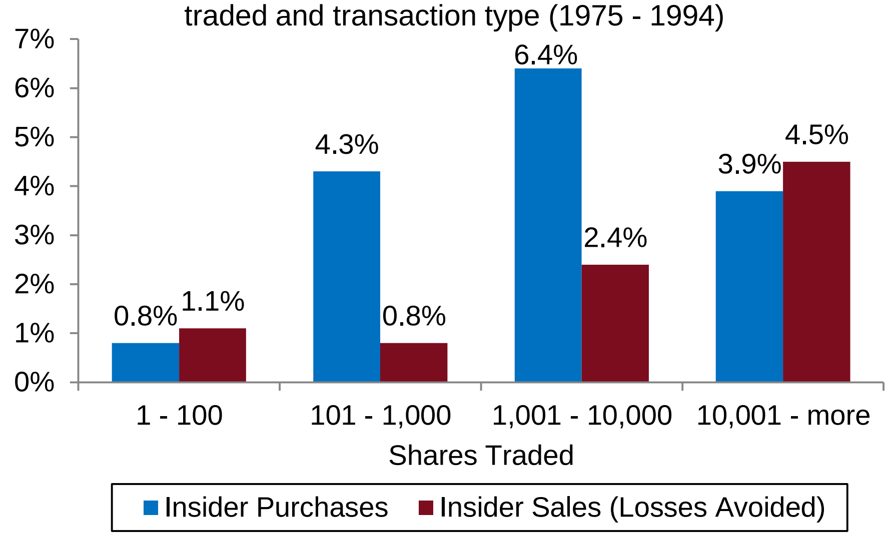
Refined Strategy

An insider buying investment strategy maximizes returns by considering various aspects, including: the nature of the trade (active or passive), conflicting signals by insiders, insider identity, trade volume, firm size, transaction type (buying or selling), and existence of consensus among insiders.

Below are a few examples from the academic findings of H. Nejat Seyhun.

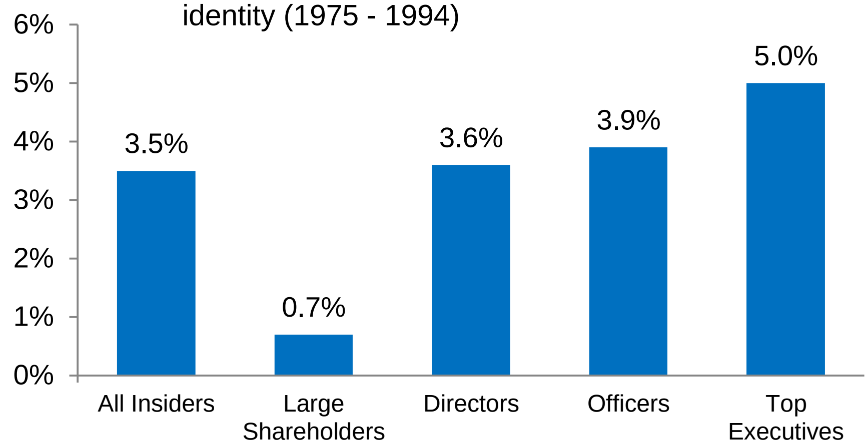
Trade Volume: on average, investing based on higher trade volume generates higher returns. Exhibit 4 displays net one-year returns based on trade volume. Factors such as increased regulatory scrutiny and visibility result in declines at very large trade volumes.

Exhibit 4: Average net (+/- Market) one-year returns for firms with insider buying and selling grouped by shares traded and transaction type (1975 - 1994)



Insider Identity: on average, investing by top executives generates the highest net returns while investing by large shareholders generates the lowest net returns (Exhibit 5). This difference may be explained by the difference in level of understanding by the type of insider about the firm

Exhibit 5: Average net (+/- Market) one-year returns for firms with insider buying and selling grouped by insider identity (1975 - 1994)



and the market conditions.

Technical back testing using insider buying data from 2003 to 2010 confirms the academic findings.

Insider Identity: returns can be maximized by evaluating the type of insider purchasing shares. Investing based on top executive cluster buying generates a 200 basis point improvement over a general insider buying strategy while outperforming the market (S&P 500 index) by greater than 11% (Exhibit 6). Exhibit 7 displays the one-year returns of stocks that have experienced top executive insider buying during the month.

Trade Volume: grouping firms with top executive buying by the number of shares traded during the month demonstrates that returns are maximized as trade volume increases. Exhibit 8 demonstrates that firms with top executive insider buying and trade volumes greater than 10,000 shares during that month outperform the market (S&P 500 index) by greater than 25%, on average.

By taking into account these academic and back test findings and using cluster buying activity, one can create an optimal portfolio that maximizes returns from the insider buying investment strategy.

Exhibit 6: Average net (+/- Market) one-year returns for firms with insider buying grouped by insider identity (2003 - 2010)

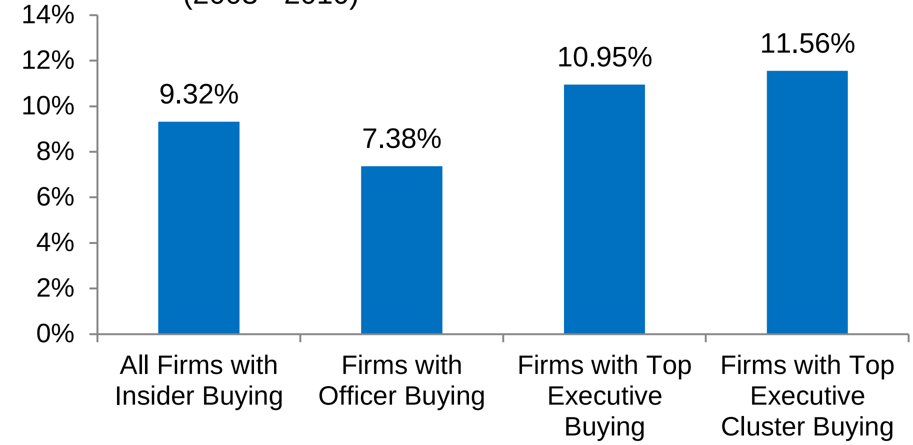


Exhibit 7: Monthly Difference (Top Executive Insider Buying Return - Market Return)

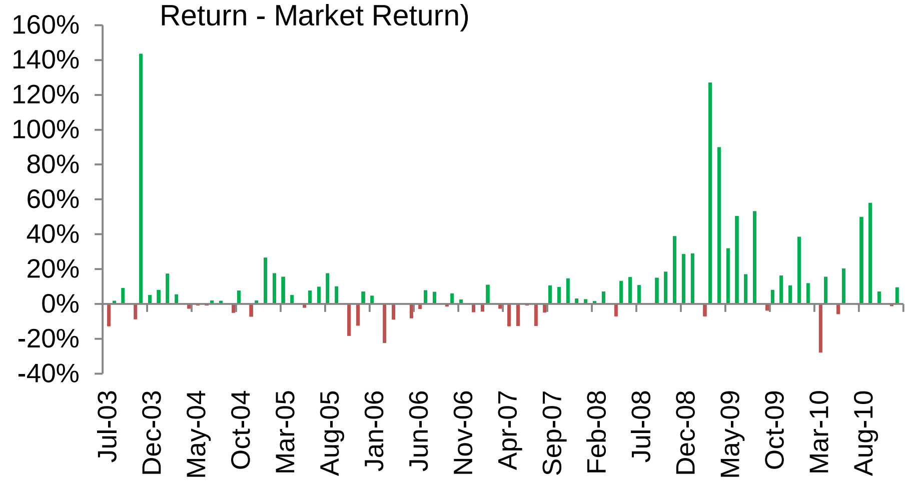
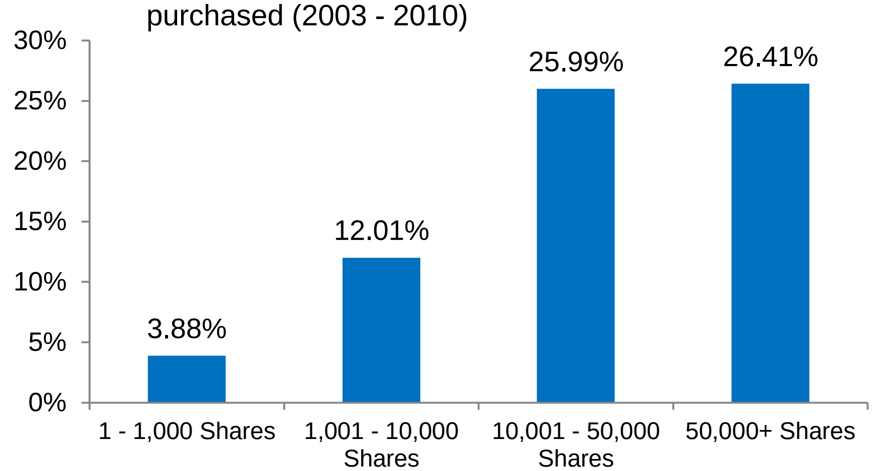


Exhibit 8: Average net (+/- Market) one-year returns for firms with top executive insider buying grouped by shares purchased (2003 - 2010)



Conclusion

Why do we believe insider buying outperforms?

First, it is intuitive. Insiders have more information on their own company than any external shareholders. The only good reason for multiple insiders to buy stock in their company is that they believe it will appreciate based on the information they have gleaned from running the business. Exhibit 9 displays the one-year stock price movement and return following insider buying for one specific firm.

Exhibit 9: Specific example of one-year return following insider buying

Second, across seven academic studies, they have universally concluded that, based on hard data, clusters of insider buying lead to outperformance ranging from 6% to 10% annualized. Given that officers and directors continue to have much better access to information on the operations of their business, they should be able to continue to benefit from this information gap.

Why should you implement an insider buying strategy?

Would you rather own 500 stocks in an index indiscriminately, or would you prefer to own those stocks that insiders with a wealth of knowledge on those businesses are buying personally? The answer is clear. If the opportunity exists to legally glean insider trading data from the SEC, why not use it to your advantage?

In Summary:

- ✓ **Insiders possess better information about their own business than external shareholders**
- ✓ **Insiders buy for only one reason, they believe the stock will increase in value**
- ✓ **Academic findings conclude that the insider buying strategy outperforms the market**
- ✓ **Back test findings confirm the academic studies**
- ✓ **Returns from an insider buying strategy are maximized by considering various aspects of insider buying (e.g., trade volume, insider identity, etc.)**

In closing, we hope that we have given advisors and investors some insight into the insider buying investment strategy. We believe that investors looking to maximize returns should have exposure to this type of investment strategy that can provide returns that outperform the market.

*It is important to remember that there are risks inherent in any investment and that there is no assurance that any asset class or index will provide positive performance over time. Portfolios that invest in equities are subject to general risks, including market risk, which could negatively impact the performance that an investor recognizes from his or her portfolio. Market and economic factors can change rapidly, resulting in materially different returns. Past performance of the insider buying strategy does not guarantee future returns. No inference should be drawn that managed accounts will be profitable in the future. This document has been published by Catalyst Capital Advisors LLC solely for the purpose of providing information about the insider buying investment strategy.

Appendix

Exhibit 1: A back test was performed for firms with insider buying from March 2003 until December 2010. An equally-weighted insider buying portfolio was created for all firms with insider buying for each month. Using a single $10,000 investment in March 2003 and the monthly portfolio returns, the investment was tracked through December 2010. The chart displays the cumulative effects of buying stocks with insider buying. For comparison, the chart also uses the monthly returns for the S&P 500 index to track a $10,000 investment in the market over the same period of time. The insider buying portfolio outperforms the S&P 500 index.

Exhibit 2: A back test was performed for firms with insider buying from March 2003 until December 2010. An equally-weighted insider buying portfolio was created for all firms with insider buying for each month, and the one-year returns were calculated. Similarly, market returns were calculated by determining the S&P 500 index one-year returns for each month. The chart displays the insider buying portfolio returns less the market returns. When the bars are green (difference is greater than zero), the insider buying portfolio outperformed the market. For months when the bars are red (difference less than zero), the S&P 500 index outperformed the insider buying portfolio.

Exhibit 3: A back test was performed for firms with insider buying from March 2003 until December 2010. An equally-weighted insider buying portfolio was created for all firms with insider buying for each month, and the one-year returns were calculated. Similarly, market returns were calculated by determining the S&P 500 index one-year returns for each month. A two-sample t-Test was performed, comparing the insider buying portfolio returns and market returns for the 94-month period. With a p-value less than 0.05, it is concluded that there is a statistically significant difference between the insider buying portfolio one-year returns and S&P 500 index one-year returns for each month. The insider buying portfolio outperformed the market.

Exhibit 4: Using the underlying data from Table 1 (all firms with insider buying or selling from 1975 to 1994), Seyhun performed additional analysis, grouping the net one-year returns (insider profit less equally-weighted NYSE, AMEX, and NASDAQ market portfolio) by trade volume and transaction type. Trade volume represents the number of shares traded for the insider buying or selling transaction. Once the data were separated based on trade volume, Seyhun further separated the data based on whether the transaction was an insider buying or insider selling transaction. The insider selling data are presented in terms of losses avoided – the actual net returns are negative compared to the market. One-year returns increased with trade volume until the trade volume surpassed 10,000 shares. Seyhun suggested that this decrease in returns may be explained by the increased visibility and regulatory scrutiny that comes with larger trade volumes. Insider buying returns were typically greater than returns from insider selling losses avoided (i.e., not investing in firms following insider selling).

Exhibit 5: Using the underlying data from Table 1 (all firms with insider buying or selling from 1975 to 1994), Seyhun performed additional analysis, grouping the net one-year returns (insider profit less equally-weighted NYSE, AMEX, and NASDAQ market portfolio) by insider identity. Investing by top executives generated the highest returns while investing by large shareholders generated the lowest returns. Seyhun suggested that this difference is explained by the level of understanding the insider has about the firm and market conditions.

Exhibit 6: A back test was performed for firms with insider buying from March 2003 until December 2010. The firms with insider buying were then grouped by insider identity. If, during a particular month, a top executive made a direct open market purchase, the month was designated as a month with top executive buying (even if other types of insiders also made purchases). Similarly, if there were direct open market purchases by officers but no purchases by top executives, the month was designated as a month with officer buying. The top executive cluster buying group is a top executive insider buying month with at least four direct open market purchases. An equally-weighted insider buying portfolio was created for each insider identity group for each month, and the one-year returns were calculated. Similarly, market returns were calculated by determining the S&P 500 index one-year returns for each month. The chart displays the average net returns (insider identity group returns –market returns) for each insider identity group. Investing by top executive maximizes returns and outperforms the market by greater than 11%, on average.

Exhibit 7: A back test was performed for firms with insider buying from March 2003 until December 2010. An equally-weighted insider buying portfolio was created for all firms with top executive insider buying for each month, and the one-year returns were calculated. Similarly, market returns were calculated by determining the S&P 500 index one-year returns for each month. The chart displays the top executive insider buying portfolio returns less the market returns. When the bars are green (difference is greater than zero), the top executive insider buying portfolio outperformed the market. For months when the bars are red (difference less than zero), the S&P 500 index outperformed the top executive insider buying portfolio.

Exhibit 8: A back test was performed for firms with insider buying from March 2003 until December 2010. The firms with insider buying were then filtered by firms with top executive insider buying and grouped by the total number of shares purchased by all insiders for that particular month. An equally-weighted insider buying portfolio was created for each group for each month, and the one-year returns were calculated. Similarly, market returns were calculated by determining the S&P 500 index one-year returns for each month. The chart displays the average net returns (insider buying group returns –market returns) for each group. One-year returns increased for firms with top executive insider buying as the number of shares purchased during that month increased. Firms with top executive insider buying and greater than 10,000 shares purchased during that month outperformed the market by greater than 25%, on average.

Exhibit 9: Investing based on a specific month with significant insider buying for Crosstex Energy LP (XTEX) would have generated a one-year return of 466%.