InsideTrack®
A STRATEGY FOR SMART INVESTING

GLOBAL KEY ADVISORS

Timing Concentrated Insider Sales: A Quantitative Perspective

-- A White Paper by Global Key Advisors

If you are a public company insider,* equity-based compensation may skew your net worth toward heavy concentration in company shares. Most likely you are optimistic about the future price, or you would leave. A large gamble, however, is not a sustainable financial plan. You may moreover face shareholder pressure against diversifying. ***In this high stakes scenario, what is your exit strategy?***

Several hundred thousand Section 16 insiders have faced this question in the past decades. Out of curiosity, ***we took a quantitative look at the decisions these insiders made, and their outcomes.*** As always, we sought investment signals, as identifying and tracking 'smart money' is core to our InsideTrack® strategies, but we were especially interested in any insights that could benefit clients overexposed in single holdings.

Owing to investor focus and a public interest in fair markets, approximately 200 academic papers have examined public company officer/director transactions. As none answered our question, we took the novel approach of applying a time series analysis to successive insider trades - the first examination of its kind.

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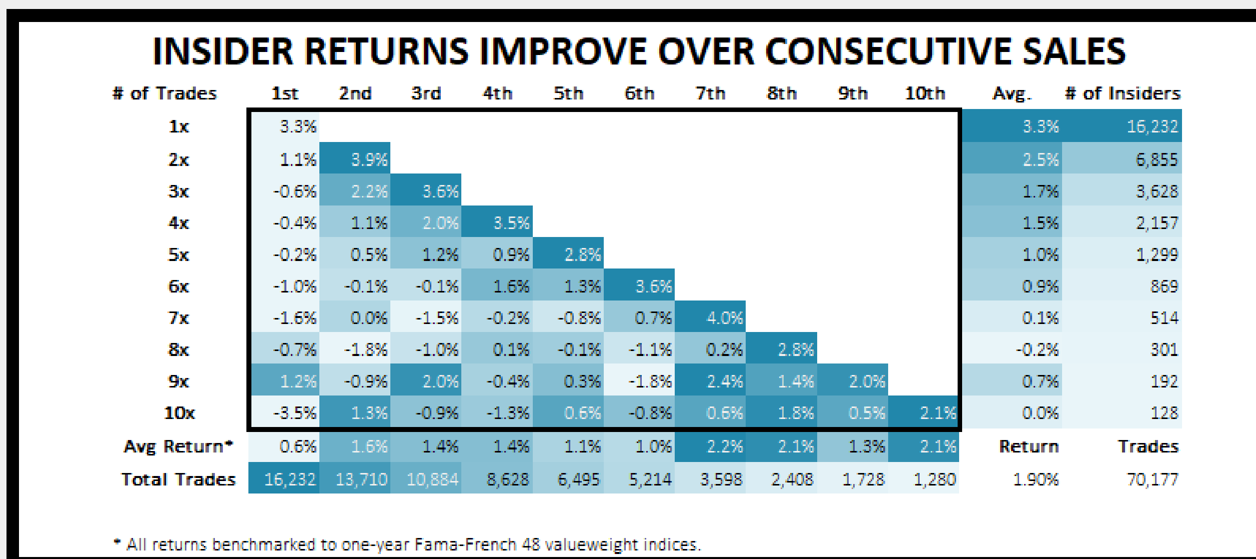
The above was obtained from sources believed reliable; however, we cannot guarantee its accuracy or completeness. Future performance may differ from past returns.

Drawing on data from our resulting paper, the illustration below shows 70,177 insider sales from 2003 through 2020 and finds that insiders begin poorly at timing their exits but improve over later sales. Final sales can be especially predictive.



INSIDER RETURNS IMPROVE OVER CONSECUTIVE SALES

# of Trades	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	Avg.	# of Insiders
1x	3.3%										3.3%	16,232
2x	1.1%	3.9%									2.5%	6,855
3x	-0.6%	2.2%	3.6%								1.7%	3,628
4x	-0.4%	1.1%	2.0%	3.5%							1.5%	2,157
5x	-0.2%	0.5%	1.2%	0.9%	2.8%						1.0%	1,299
6x	-1.0%	-0.1%	-0.1%	1.6%	1.3%	3.6%					0.9%	869
7x	-1.6%	0.0%	-1.5%	-0.2%	-0.8%	0.7%	4.0%				0.1%	514
8x	-0.7%	-1.8%	-1.0%	0.1%	-0.1%	-1.1%	0.2%	2.8%			-0.2%	301
9x	1.2%	-0.9%	2.0%	-0.4%	0.3%	-1.8%	2.4%	1.4%	2.0%		0.7%	192
10x	-3.5%	1.3%	-0.9%	-1.3%	0.6%	-0.8%	0.6%	1.8%	0.5%	2.1%	0.0%	128
Avg Return*	0.6%	1.6%	1.4%	1.4%	1.1%	1.0%	2.2%	2.1%	1.3%	2.1%	Return	Trades
Total Trades	16,232	13,710	10,884	8,628	6,495	5,214	3,598	2,408	1,728	1,280	1.90%	70,177

* All returns benchmarked to one-year Fama-French 48 valueweight indices.

Because heat maps can mislead, our paper additionally applied autoregression as well as cross-sectional ordinary least squares (OLS) regression models, the latter comparing returns from pairwise consecutive clusters in both normal and reversed sequence, and we calculated a general beta value of all clusters. Each approach confirmed the heatmap pattern.

Why do insiders improve at selling? We believe that insiders accept suboptimal timing in earlier sales because they are weighing the desire for diversification over obtaining the highest selling price. Insiders in later sales have achieved greater diversification, diminishing the ability of a concentrated holding to impact their financial security, and they can afford to take the risks that come with seeking more for their shares.

As practitioners trying to convince insiders to diversify concentrated stakes, we are hardly disinterested parties, as our revenues derive from managing proceeds from these sales. However, we have also seen innumerable insiders significantly harm their financial futures in seeking the highest possible price. Perfect can be the enemy of the good.

Incidentally, while insiders improve in timing sales, our study also found that insiders get *worse* at timing acquisitions. Different behavioral considerations are in play, although that topic is for another day.

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- Our study covers public company insiders, although we suspect our findings would apply to large stakeholders in private businesses.