Special Study

January 30, 2009

Ford Equity Research

11722 Sorrento Valley Road,

Suite I

San Diego, CA 92121

800.842.0207 (USA)

858.455.6316 Fax

www.fordequity.com

Sector Achievers - Buy the Best of the Best, Sell the Worst of the Worst

To even the most casual observer of equity markets, it is clear that share prices for companies within the same industry group frequently move in the same general direction. This also makes intuitive sense, as companies within an industry group are affected by the same business factors. In previous studies we have attempted to exploit this simple observation by using the average stock price momentum of industry groups to predict near-term industry performance. Interest in this topic has been around for some time. In their 1999 paper, "Do Industries Explain Momentum", Moskowitz and Grinblatt explored the evidence of the effect of industry return persistence on individual stock momentum strategies. In this study, we update the performance of our price momentum strategy applied to the Ford industry groups. Taking the work a step further, we develop a trading strategy that uses our Ford Value/Momentum Model to identify the individual stocks expected to perform the best and worst within the best and worst industry groups, respectively.

The Ford universe of stocks is divided into 15 macro industry groups. For each of these groups we calculated equally-weighted averages of price gain over the previous 6 month and 12 month periods on a monthly basis. We ranked each group monthly in descending order and measured the subsequent average monthly performance for each group. The table below shows the annualized results for the test of the industry average price gain over the previous 6 months. The results were promising, as industry groups that ranked in the highest 2 sectors posted average returns that exceeded the universe returns by a large margin and those in the lowest 2 sectors had an average negative return over the 10-year period. These overall results were also substantially better than those for the same exercise using the 12-month industry average price gain. It should be noted that the number of companies within the industry groups varies widely ranging from 55 in the automotive group to 897 in the technology group.

Macro Industry Group Momentum using 6-month Price Gain

(total return %)

	Highest	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7	Sector 8	Sector 9	Sector 10	Sector 11	Sector 12	Sector 13	Sector 14	Lowest	Universe
12/98-12/99	92.7	9.8	10.8	15.1	-9.8	8.5	13.3	-14.3	14.3	2.3	-6.1	23.2	-17.4	12.4	34.3	21.4
12/99-12/00	8.9	27.8	24.9	16.2	20.8	-10.0	-4.5	43.2	33.3	0.6	-23.7	-29.8	7.2	-22.1	-27.3	-0.1
12/00-12/01	7.4	16.0	3.9	25.9	38.7	28.0	33.9	28.8	17.5	-11.8	30.9	31.2	40.5	10.6	-11.3	22.0
12/01-12/02	-17.1	13.6	-21.8	-11.6	-4.4	-6.5	-6.6	-10.9	-7.8	-6.6	12.0	-14.5	14.3	-20.6	-27.4	-15.3
12/02-12/03	128.5	91.5	35.9	56.2	60.6	64.6	59.7	50.7	66.2	39.7	44.9	67.8	53.5	64.6	34.0	70.3
12/03-12/04	14.2	42.9	24.2	35.7	31.8	33.7	4.1	19.1	38.6	10.0	29.0	32.8	21.6	15.4	27.0	20.6
12/04-12/05	54.1	10.8	16.8	4.9	5.2	6.5	13.1	6.4	-3.9	-5.8	7.2	9.5	6.4	2.7	-11.9	4.3
12/05-12/06	33.1	7.7	24.7	3.3	23.4	16.9	18.4	38.5	13.0	12.8	19.8	22.8	23.2	33.6	15.8	17.5
12/06-12/07	16.5	8.7	5.8	25.2	17.6	-0.1	2.2	2.4	-0.1	-2.5	-5.4	-5.9	-8.7	-17.1	-21.9	-5.8
12/07-12/08	-39.6	-45.3	-41.7	-37.6	-52.3	-61.4	-44.9	-36.0	-31.0	-52.8	-44.9	-34.0	-53.4	-59.1	-34.1	-44.2
Annualized	**21.5**	**13.6**	**5.5**	**10.3**	**8.3**	**2.2**	**5.4**	**9.3**	**11.0**	**-4.4**	**2.8**	**6.1**	**4.0**	**-3.8**	**-5.6**	**5.2**
Std. Deviation	31.5	23.8	22.3	20.4	21.1	22.8	20.5	21.5	19.1	22.2	20.8	21.2	24.1	26.9	31.6	20.9

In order to determine if more narrowly defined industry groupings produced better results, we calculated the same 6-month average price gain on the 88 industry groups we track. The table below shows the performance of 10 equal-numbered groups of stocks based on the 6-month industry average price gain. It appears that the greater level of industry group classifi-cation leads to an improved industry momentum measure as the performance distribution of highest to lowest momentum shows a steady decline from positive to negative returns. It should be noted that for the extreme low and high groups, the average holding period is only 2 and 3 months, respectively, indicating that the use of industry momentum will probably be best suited to an active trading strategy. Industry momentum was not effective in 2008. However, very few selection factors were effective in that unusual market environment.

6-month Average Price Gain Deciles on 88 Ford Industry Groups

	Highest	Sector 2	Sector 3	Sector 4	Sector 5	Sector 6	Sector 7	Sector 8	Sector 9	Lowest	Universe
12/98-12/99	100.8	105.4	37.4	2.2	7.6	-0.3	-8.7	-1.8	6.2	5.7	21.4
12/99-12/00	34.2	43.5	20.3	6.0	2.6	4.1	-11.8	-24.7	-34.5	-33.8	-0.1
12/00-12/01	15.9	10.2	31.0	36.0	23.2	14.0	41.9	18.1	5.3	5.5	22.0
12/01-12/02	-6.1	-22.2	-14.3	-12.5	-12.3	-11.5	-21.0	-17.9	-17.4	-26.0	-15.2
12/02-12/03	105.4	98.9	100.9	89.2	62.2	57.3	52.5	50.9	51.4	44.0	70.3
12/03-12/04	26.1	25.6	11.8	18.4	27.2	15.4	27.7	27.4	11.9	13.7	20.6
12/04-12/05	23.6	5.2	-1.6	6.7	7.5	-2.5	-7.5	5.7	6.7	0.2	4.3
12/05-12/06	17.6	15.9	18.0	11.2	16.1	22.3	7.0	22.4	23.8	19.8	17.6
12/06-12/07	11.2	3.4	-0.1	1.6	2.4	-0.8	-15.7	-15.8	-21.2	-18.1	-5.8
12/07-12/08	-42.0	-44.1	-53.0	-45.8	-50.6	-32.0	-43.1	-38.9	-43.0	-49.9	-44.2
Annualized	**21.7**	**16.1**	**8.6**	**6.5**	**4.5**	**4.3**	**-1.8**	**-0.9**	**-4.8**	**-7.9**	**5.2**
Standard Deviation	27.3	28.2	21.5	19.5	18.9	19.5	21.5	25.7	30.6	32.1	20.9
Avg. Holding (mos.)	3.1	1.7	1.5	1.4	1.4	1.3	1.4	1.5	1.7	2.6	

Building Industry Momentum Portfolios

Since the performance distribution of the 6-month average industry group price gain shows strong discrimination between the highest and lowest sectors, it logically follows that by concentrating long positions in the top sectors and shorting those in the lowest sectors would produce good results. We used the Ford Value/Momentum Model (VMO), which has proven success in selection across the universe of stocks and within industries, to make the final portfolio selections. We created and tested long, short, and combined long-short portfolio strategies.

The long portfolio included companies with share prices above $5, average daily trading volume above 100,000 and a Ford Quality Rating of at least B-. The initial selection criterion for the long portfolio was that the 6-month average industry group price gain was among the top 20%. Within this group, the top 30 companies based on VMO were selected for portfolio inclu-sion. Companies were held in the portfolio as long as they remained in the top 30% of both industry momentum and VMO score.

The short portfolio included companies with share prices of at least $10, average daily trading volume above 400,000, and no quality constraint. The starting point for the short portfolio was the lowest 10% of companies ranked by 6-month average industry group price gain. Within this group, a maximum of 20 of the worst VMO ranked companies were selected from those that had VMO rankings in the bottom 15% of the entire Ford universe. Short positions were maintained as long as the stock remained among the bottom 20% based on industry momentum and among the bottom 30% of VMO rankings. While the target number of short positions was 20, in some periods the number fell to as few as 3, due to a lack of stocks meeting the selection criteria. We did not check whether the stocks could be borrowed or were on the short restriction list in September and October 2008. To the extent that issues might not have been available for shorting, test results would necessarily differ.

For the long-short combination we simply combined the long portfolio and the short portfolio. The resulting combination re-sulted in 100% long positions and as much as 67% short (when short positions totaled the maximum 20 stocks).

Ford Equity Research
A Mergent Company

	Sector Achievers			
	Long	**Short**	**100/67**	**Russell 3000**
1999	91.6%	-27.1%	62.1%	20.9%
2000	79.7%	32.9%	103.0%	-7.5%
2001	15.5%	23.5%	38.5%	-11.5%
2002	-3.7%	52.7%	33.4%	-21.5%
2003	41.5%	-24.6%	18.1%	31.1%
2004	18.3%	-1.4%	19.5%	11.9%
2005	24.3%	-0.6%	27.9%	6.1%
2006	15.3%	-17.4%	2.1%	15.7%
2007	50.4%	3.8%	52.4%	5.1%
2008	-51.5%	47.5%	-30.5%	-37.3%
10 Years Ending 12/31/08				
Annualized Return	20.9%	5.5%	28.1%	-0.8%
Standard Deviation	30.7%	30.4%	30.0%	15.4%
Beta (Russell 3000)	1.11	-1.42	0.15	
Sharpe Ratio	0.58	0.08	0.83	-0.26
Sortino Ratio	0.91	0.14	1.38	-0.34

The test portfolios we created, which we've termed Sector Achievers, posted strong results over a 10-year period. The 30-stock long portfolio outperformed the Russell 3000 index on an annualized basis as well as in 8 of the 10 years. The short portfolio was particularly effective in down market years and the combined portfolio generated an additional 7.2% annualized total return over the long portfolio. Although the portfolios generated high variability of returns as shown by the annual standard deviations in excess of 30%, much of the volatility came in the form of positive returns as shown by the higher Sortino ratio (a modification of Sharpe measure that penalizes negative volatility) than Sharpe ratio.

Not surprisingly, the Sector Achievers portfolio construction leads to heavy industry group concentrations. For example, technology stocks and oil and gas issues made up 97% and 70% of the long portfolio in 1999 and 2005, respectively. In terms of size, the long portfolio tended to be skewed to mid and small cap companies in most periods. The tendency to select small cap stocks was even more prevalent in the short portfolio. Because these portfolios are small and concentrated, they provide little diversification. They are more appropriate to be used in an aggressive trading strategy or to make selections and set weightings within a broader portfolio strategy. We will be publishing a new report that details the monthly Sector Achievers selections that will be available by subscription.

Ford Equity Research
A Mergent Company