

RIDING THE BULL AND FIGHTING THE BEAR

Sector Momentum Investing

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On December 31, 1999 John Savage, at age 45, rolled his \$100,000 401k into his Vanguard IRA. He invested the entire portfolio into the Vanguard 500 Index (VFINX) mutual fund. During the next three years he watched his portfolio drop -9.06%, -12.02% and -22.15%, leaving him with a balance of only \$62,279 by the end of 2002. While the Fund produced respectable returns on the rebound, by the end of 2005 John still hadn't entirely recovered his losses. In fact, six years after making his initial investment, his balance was \$92,859 (12/31/05). Unfortunately, John was not alone; many investors faced the same dilemma. What could John have done differently? Were there any stock investment strategies that did well during the painful 2000-2002 bear market? The answer is yes!

Recession Back Testing 2000-2008

Let's use our perfect 20/20 hindsight vision and examine the results John would have experienced over the same period had he used a strategy called Sector Rotation (SR). Starting with the same \$100,000; SR portfolios climbed to \$105,750 by the end of the recession in 2002, then went on to climb to \$190,965 by the end of 2008. That's a 90.97% increase during a period that included two of the worst recessions we've experienced in the past fifty years. By contrast the Vanguard 500 Index fund lost a total of -28.74% over the same nine-year stretch (see comparisons below). Of course, all investors know that past performance is no guarantee of future results; however, these numbers definitely warrant a deeper look at the SR strategy.

<u>Year-End Value</u>	<u>Vanguard 500 Index*</u>	<u>Sector Rotation</u>
2000	\$90,944	\$112,872
2001	\$79,991	\$110,682
2002	\$62,279	\$105,750
2003	\$80,036	\$156,375
2004	\$88,622	\$177,767
2005	\$92,849	\$224,058
2006	\$107,360	\$268,310
2007	\$113,153	\$350,010
2008	\$71,258	\$190,965

** Sector Rotation performance results assume all 20 sectors listed on Page 2 were used. Fidelity Select sector funds were used to determine sector performance. Vanguard performance data was obtained from Morningstar Principia.

Let's now see how Sector Rotation performed over a couple more bear markets.

Recession Back Testing 1973-1975

The strategy also provided downside protection during the 1973-74 recession. In 1973 the S&P 500 dropped -14.66% and in 74 it fell -26.47% for a two year loss totaling a whopping 37.5%. Had you invested \$100,000 in the S&P 500 on January 1, 1973 it would have fallen to \$62,751 by the end of 1974. By contrast the Sector Rotation strategy dropped just -5.96% to \$94,032 over the same period. Although these

performance figures were based on the performance of just four sector funds (mutual funds in only four different sectors were available in 1974) the results still suggest that momentum investing works.

<u>Year-End Value</u>	<u>S&P 500 Index</u>	<u>Sector Rotation***</u>
1972	\$100,000	\$100,000
1973	\$85,341	\$106,641
1974	\$62,751	\$94,032
1975	\$86,094	\$124,839

** *Due to the lack of sector performance history dating back to 1972 only four sectors were measured to produce the Sector Rotation performance results above. The following four sector funds used were included in the back test: Franklin Utilities LW, WF Adv. Spec. Fin. Svc. A LW, DWS Tech. A and LW & Van Eck Intl. Inv. Gold. The two sectors with the largest increase during the previous 6-months were purchased and held for three months at which point the process was repeated.

Recession Back Testing 2008

2008 was a sector anomaly and Sector Rotation didn't fare so well. The premise of the Sector Rotation strategy is quite simple: every year some sectors of the stock market will do well. This was the case in the 1973-74 and 2000-02 bear markets (Figure 1), however, the assumption didn't hold true in 2008. In 2008 all twenty sectors fell together (Figure 2). Even the best sectors in 2008 posted negative returns.

Figure 1

S&P 500	2000 -9.1%
Fidelity Real Estate Inv	31.4%
Fidelity Sel Banking	18.3%
Fidelity Sel Biotech	32.8%
Fidelity Sel Consumer Dist	-9.3%
Fidelity Sel Electronics	-17.5%
Fidelity Sel Energy	31.8%
Fidelity Sel Energy Serv	50.3%
Fidelity Sel Fincl Svcs	28.5%
Fidelity Sel Gold	-18.1%
Fidelity Sel Health Care	36.7%
Fidelity Sel Leisure	-24.5%
Fidelity Sel Materials	-5.4%
Fidelity Sel Natural Resources	30.4%
Fidelity Sel Retailing	-11.3%
Fidelity Sel Software	-20.2%
Fidelity Sel Technology	-32.3%
Fidelity Sel Telecommun	-37.4%
Fidelity Sel Transport	17.7%
Fidelity Sel Utilities	-13.5%
Munder Internet	-54.2%

Figure 2

S&P 500	2008 -37.0%
Fidelity Real Estate Inv	-38.2%
Fidelity Sel Banking	-37.5%
Fidelity Sel Biotech	-11.4%
Fidelity Sel Consumer Dist	-34.6%
Fidelity Sel Electronics	-49.9%
Fidelity Sel Energy	-54.0%
Fidelity Sel Energy Serv	-63.2%
Fidelity Sel Fincl Svcs	-49.9%
Fidelity Sel Gold	-20.5%
Fidelity Sel Health Care	-32.4%
Fidelity Sel Leisure	-29.1%
Fidelity Sel Materials	-47.6%
Fidelity Sel Natural Resources	-52.4%
Fidelity Sel Retailing	-29.6%
Fidelity Sel Software	-42.1%
Fidelity Sel Technology	-51.1%
Fidelity Sel Telecommun	-47.7%
Fidelity Sel Transport	-27.0%
Fidelity Sel Utilities	-36.0%
Munder Internet	-45.8%

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Winners in All Market Conditions (Almost)

The Sector Rotation works as long as some sectors of the stock market experience a sustained run. If some of your portfolio is invested in the top performing sectors each year it will boost your overall returns. For example, owning stocks in the Energy and Energy Services sectors (equally weighted) from the second quarter of 2004 to the second quarter of 2008 would have generated a 193% return.¹ During this same period the Vanguard S&P 500 Index fund went up just 26%.

We saw this occur during the 2000-2002 recession too. In 2000 when the stock market as measured by the S&P 500, fell -9.10%, Morningstar reports that the average Natural Resource sector fund gained 29.21%. In 2001 and 2002, while the stock market was falling -11.88% and -22.09, the average Precious Metals fund was up 20.75% and 68.99% respectively. In hindsight it would have been nice to have had some of your portfolio invested in these sectors of the stock market. Of course, as previously mentioned there were no winners in 2008.

How the Sector Rotation Strategy Works

The SR strategy identifies the best performing sectors of the stock market, and then tries to catch the wave (buy) and ride it until it breaks (sell). The process of determining which sectors to invest in is simple. First, the performance of twenty major sectors of the stock market is measured (see sectors below). Second, the five sectors with the most total return over the previous six-months are identified. Third, mutual funds or a group of individual stocks are then purchased in each of these five sectors and are equally weighted in the portfolio. Finally, the five sector portfolio is held for three months at which point the process is repeated and hot new sectors are rotated in and slowing sectors are rotated out of the portfolio (six month look back, three month hold).

The idea is to participate in the momentum of the best performing sectors and then move out of these sectors as they cool off. The strategy buys late, after momentum has begun, and sells late, after momentum has slowed. Consequently, the strategy works best when there are long sustained moves by certain sectors of the market.

SECTORS

- Banking
- Biotechnology
- Consumer Products
- Electronics
- Energy
- Energy Services
- Financial Services
- Gold/Precious Metals
- Health Care
- Industrial Materials
- Internet
- Leisure
- Natural Resources
- Real Estate
- Retailing
- Software
- Technology
- Telecommunications
- Transportation
- Utilities

Rotating Sectors

The SR strategy has built-in buy and sell signals. You'll remember in 1999 when everyone seemed enamored with technology stocks. The technology sectors of the market were providing huge returns and investors were piling on the band wagon in droves. The average technology mutual fund rose 127.62% in 1999. The best technology fund climbed 243.89% in 1999. However, the average technology fund fell

off the charts beginning in 2000, losing -31.00%, -34.83 and -42.44% over the next three years. All of the 1999 gains were lost. If you owned technology funds in 1999 and didn't have a sell strategy in place before the 2000 drop occurred your portfolio likely got pummeled. SR investors participated in the technology boom of 1999 and saw their portfolios increase by 55.40%. However, the Strategy rotated out technology in 2000, thus protecting its 1999 gains. In 2000 the Strategy rotated into sectors (see below) that handled the downturn well and provided investors with a 12.86% annual return.

The SR strategy held the following sectors in 1999.

First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Electronics	Electronics	Technology	Technology
Technology	Technology	Internet	Energy
Internet	Internet	Energy	Energy Services
Biotechnology	Leisure	Energy Services	Gold
Utilities	Telecomm.	Transportation	Electronics

In 2000, as the stock market began to slide, the SR strategy rotated to the following sectors.

First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Electronics	Electronics	Health Care	Finance
Technology	Technology	Biotechnology	Real Estate
Internet	Internet	Energy	Banking
Biotechnology	Software	Energy Services	Biotech
Software	Telecomm.	Electronics	Health Care

In 2003, the first full year after the recession, SR investors rotated a portion of their assets back into the technology sector and participated in the surge that followed. 2003 brought SR investors a fat 47.91% return as compared with the S&P 500's impressive return of 28.70%.

Modified Sector Rotation

In 2008 in response to adverse market conditions we began offering a modified version of the Strategy called Sector Rotation Bull/Bear to combat the problem of all sectors falling at once. We added three defensive positions to the strategy: Bonds, a Money Market, and an inverse S&P 500 fund. So, if we encounter 2008 market conditions again the strategy can rotate almost entirely out of the stock market. The Sector Rotation Bull/Bear strategy fell -19.09% in 2008 versus the S&P 500 which dropped -37%.

Invest With Your Eyes Wide Open: Ups and Downs

From 1981 to 2007 the SR strategy experienced higher highs and lower lows than the S&P 500 Index when performance is measured quarterly. For example, the two worst quarters for the SR strategy occurred in the 4th quarter of 1987 and the 3rd quarter of 1990 (see Figure 3). During these rough times the value of SR portfolios fell -22.6% and -19.76% respectively. By contrast the Vanguard 500 Index fund dropped -22.72% and -13.80% during these same periods. However, during the two best quarters (fourth quarter

of 1982 and fourth quarter of 1998), the SR strategy was up 38.45% and 32.34%, while the Vanguard 500 Index fund increased by only 17.80% and 21.40%. In 2008 SR lost -45%, which occurred mostly in the third and fourth quarter when it fell -32% and -27%. SR investors should be prepared for ups and downs similar to those that have occurred in the past.

Figure 3²

Sector Rotation Quarterly Performance

1981 - Q1	-5.67%	1988 - Q1	4.61%	1995 - Q1	10.52%	2002 - Q1	12.03%
Q2	1.68%	Q2	5.19%	Q2	17.23%	Q2	-12.30%
Q3	-4.34%	Q3	2.47%	Q3	14.92%	Q3	-9.27%
Q4	7.91%	Q4	3.50%	Q4	-2.55%	Q4	7.15%
1982 - Q1	-5.52%	1989 - Q1	8.03%	1996 - Q1	4.16%	2003 - Q1	-3.95%
Q2	3.54%	Q2	5.66%	Q2	4.12%	Q2	25.71%
Q3	12.69%	Q3	9.25%	Q3	3.44%	Q3	8.80%
Q4	38.45%	Q4	0.21%	Q4	10.72%	Q4	12.55%
1983 - Q1	5.03%	1990 - Q1	1.19%	1997 - Q1	-3.09%	2004 - Q1	1.89%
Q2	19.28%	Q2	4.31%	Q2	15.46%	Q2	0.20%
Q3	-3.28%	Q3	-19.76%	Q3	15.62%	Q3	2.24%
Q4	-5.44%	Q4	3.33%	Q4	-10.68%	Q4	8.91%
1984 - Q1	-2.59%	1991 - Q1	19.24%	1998 - Q1	13.14%	2005 - Q1	1.52%
Q2	-7.60%	Q2	-2.70%	Q2	4.81%	Q2	3.69%
Q3	-3.70%	Q3	15.66%	Q3	-10.00%	Q3	14.70%
Q4	13.28%	Q4	12.84%	Q4	32.34%	Q4	4.39%
1985 - Q1	13.92%	1992 - Q1	-1.85%	1999 - Q1	18.29%	2006 - Q1	13.06%
Q2	15.15%	Q2	1.43%	Q2	12.79%	Q2	1.10%
Q3	-6.12%	Q3	0.45%	Q3	-2.26%	Q3	-9.11%
Q4	18.98%	Q4	-0.51%	Q4	19.17%	Q4	7.34%
1986 - Q1	16.22%	1993 - Q1	6.50%	2000 - Q1	19.69%	2007*-Q1	4.36%
Q2	11.05%	Q2	2.69%	Q2	-10.40%	Q2	13.20%
Q3	-19.36%	Q3	-0.76%	Q3	2.90%	Q3	7.57%
Q4	2.48%	Q4	3.53%	Q4	2.28%	Q4	2.66%
1987 - Q1	24.43%	1994 - Q1	-4.56%	2001 - Q1	-2.76%	2008*-Q1	-4.00%
Q2	0.56%	Q2	-4.31%	Q2	5.97%	Q2	13.82%
Q3	8.56%	Q3	3.28%	Q3	-11.29%	Q3	-31.88%
Q4	-22.60%	Q4	-2.07%	Q4	7.27%	Q4	-26.63%

* Performance back test numbers from 1981-2006 were produced using Fidelity sector funds. From 2007-2008 BSFF Sector Rotation, a strategy managed by Net Worth Advisory Group, performance numbers were used.

Performance Comparison

Examining the SR strategy's year-to-year performance from 1981 to 2008 (Figure 3) leads to five conclusions. Figure 3 shows the annual performance of the S&P 500 in columns two and three. Columns four and five depict the performance of a diversified stock portfolio and the last two columns outline the year-to-year returns of the Sector Rotation strategy.

- From 1981 to 1998 the SR strategy provided returns similar to those produced by the S&P 500 index.
- During periods of long extended sector moves like that of technology in 1999 the SR strategy significantly outperformed the S&P 500 Index. SR performance lags the S&P 500 a little when big sector moves occur but don't last very long.
- During periods of two extended stock market declines (i.e. 2000—2002 & 1972—1974) the SR strategy dramatically outperformed the S&P 500 Index and

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protected investor's profits. When stock market drops were short-lived like those of 1990 and 1987, the S&P 500 out performed SR portfolios.

- From 1981 – 2008 the SR strategy produced a compounded annual rate of return of 14.88% versus the 10.03% of the S&P 500.
- When no sectors perform well the strategy does poorly. This occurred in 2008.

There is also a psychological aspect of the SR strategy. During the 2000-2002 bear market many *buy and hold* investors felt like they had been thrown up against the ropes while the stock market punched them mercilessly. With no sell strategy in place, *buy and hold* investors just passively sat back and watched their nest-eggs get eaten up. The SR sell strategy provides a way of fighting back during tough bear market conditions by getting out of losing sectors and rotating into winning sectors. This puts investors on the offensive during stock market declines. It feels good to, at the very least; to throw a few punches when the market starts a fight. In 2008, the Strategy couldn't land a punch.

Figure 4³

Year	S&P 500	Growth of \$10,000	Portfolio No Sector	Growth of \$10,000	Portfolio With Sector	Growth of \$10,000
1981	-4.91%	\$9,509	-2.16%	\$9,784	-1.00%	\$9,900
1982	21.41%	\$11,545	17.78%	\$11,523	52.62%	\$15,109
1983	22.51%	\$14,144	23.36%	\$14,215	14.70%	\$17,330
1984	6.27%	\$15,030	9.93%	\$15,626	-1.82%	\$17,015
1985	32.16%	\$19,864	36.96%	\$21,402	46.51%	\$24,929
1986	18.47%	\$23,533	27.18%	\$27,219	6.65%	\$26,587
1987	5.23%	\$24,764	6.79%	\$29,067	5.15%	\$27,956
1988	16.81%	\$28,927	20.19%	\$34,934	16.70%	\$32,624
1989	31.49%	\$38,036	25.26%	\$43,757	24.97%	\$40,771
1990	-3.17%	\$36,830	-9.75%	\$39,491	-12.49%	\$35,678
1991	30.55%	\$48,082	30.97%	\$51,723	51.43%	\$54,028
1992	7.67%	\$51,769	6.35%	\$55,006	-0.51%	\$53,752
1993	9.99%	\$56,941	17.04%	\$64,379	12.37%	\$60,401
1994	1.31%	\$57,687	1.70%	\$65,474	-7.63%	\$55,793
1995	37.43%	\$79,279	31.07%	\$85,813	45.11%	\$80,961
1996	23.07%	\$97,569	18.12%	\$101,362	24.21%	\$100,561
1997	33.36%	\$130,118	24.71%	\$126,407	15.56%	\$116,209
1998	28.58%	\$167,306	20.72%	\$152,599	41.24%	\$164,133
1999	21.04%	\$202,507	24.06%	\$189,319	55.40%	\$255,063
2000	-9.11%	\$184,059	-2.00%	\$185,535	12.86%	\$287,864
2001	-11.88%	\$162,193	-10.75%	\$165,585	-1.94%	\$282,280
2002	-22.09%	\$126,364	-19.65%	\$133,055	-4.48%	\$269,634
2003	28.70%	\$162,631	34.70%	\$179,231	47.91%	\$398,815
2004	10.87%	\$180,309	14.62%	\$205,426	13.68%	\$453,373
2005	4.77%	\$188,910	9.99%	\$225,953	26.04%	\$571,431
2006	15.79%	\$218,739	17.55%	\$265,600	19.75%	\$684,289
2007	5.49%	\$230,747	6.63%	\$283,203	30.45%	\$892,655
2008	-37.00%	\$145,371	-39.97%	\$169,997	-45.44%	\$487,032
YTD 9/30/09	19.26%	\$173,369	26.26%	\$214,638	22.64%	\$597,297

How to Use the SR Strategy

Because of quarterly volatility the SR strategy is probably not appropriate as a sole equity holding for most investors. For most, the strategy should be married to a well

diversified equity portfolio with the goal of enhancing long-term returns and potentially providing some downside protection. Historically, if twenty percent of a diversified equity portfolio was invested in the SR strategy investors would have added almost one percent per year to their annual returns from 1981 to 2008. In addition, during the 2000 – 2002 bear market diversified equity portfolios that included a twenty percent position in SR would have beaten a diversified equity portfolio with no SR by 2.97%, 1.76% and 3.04% respectively.

Since the SR strategy is growth oriented strategy and is largely made up of large-cap stocks another way to use the strategy is to replace the large-cap growth portion of your portfolio's equity allocation with the SR strategy. Using this approach an all-equity portfolio may be allocated as follows:

Sample SR Diversified Portfolio

Large-Cap Growth (Sector Rotation)	25%
Large-Cap Value	25%
Mid-Cap Growth	10%
Mid-Cap Value	10%
Small-Cap Growth	5%
Small-Cap Value	5%
International Growth	10%
<u>International Value</u>	<u>10%</u>
Total	100%

Of course there is no way of knowing whether the SR strategy will work as well in future bull and bear markets as it has in most of the past bull and bear markets. However, if our assumptions are correct, we believe we will continue to see the SR strategy enhance returns and protect assets during extended swings in the stock market. I am sure John Savage, our Vanguard 500 Index mutual fund investor (page 1), would much rather have ended 2008 with \$190,965 using the SR strategy from 2000 to 2008 than the \$71,258 his Vanguard fund produced. SR's built-in buy and sell strategy provides investors with a mechanism for rotating investment portfolios out of falling sectors and into rising sectors and provides the potential of out performance.

¹ Fidelity Select Energy and Fidelity Select Energy Services funds.

² The performance of nineteen Fidelity Select Funds and the Munder Internet Fund Class A-LW were used to back test the SR strategy in this report. Performance data was provided by Morningstar Principia 3/31/2006.

³ Figure 4. The diversified portfolio in our back testing was allocated as follows: 25% in both Large-Cap Growth and Large-Cap Value, 10% in both Mid-Cap Growth and Mid-Cap Value, 5% in both Small-Cap Growth and Small-Cap Value and 20% in International Growth and Value. Returns for back testing were derived by using performance numbers for respective broad market indexes as reported in the Ibbotson's 2005 Year Book. When twenty percent of the equity portfolio was added to the SR strategy in our example the non-SR money (80%) was allocated in the same proportions as above