

MARKET TIMING

The Style Index

Index Rotation With Exchange-Traded Funds



Which will perform best, large-cap stocks or small-cap stocks? Will value stocks outperform growth stocks or will growth outperform value?

by David Vomund

If you watch CNBC, you'll notice that growth managers always say growth will outperform, value managers always say value will outperform, and small-cap managers always say small-cap stocks will outperform. Every analyst has his unique approach, and he believes his style is best. Unfortunately, market environments change. That means there are times when growth outperforms value and vice versa, and times when large-caps outperform small-caps and vice versa.

THE STYLE INDEX ROTATION STRATEGY

Instead of being locked into one trading style, it is best to employ a strategy that allows the user to rotate to the best-performing market segment. That's what our style index strategy is all about.

The style index strategy trades securities that track various market indexes. These "style" indexes include large-cap growth, large-cap value, small-cap growth, small-cap value, and so forth. While mutual fund families like the ProFunds have funds that track these indexes, the best vehicle for trading style indexes is exchange-traded funds (ETFs), the fastest-growing financial product in the US.

First launched in the early 1990s, ETFs are securities that combine elements of index funds, but do so with a twist. Like index funds, ETFs are pools of securities that track specific market indexes at a very low cost. Like stocks, ETFs are traded on major US exchanges and can be bought and sold anytime during normal trading hours.

Trading style indexes allows investors to gain well-diversified exposure to a specific

area of the market. Since an ETF holds a basket of stocks, one bad performer should have only a minimal effect on the price of the ETF. For more information on ETFs, visit www.amex.com.

Since price history on ETFs is limited, we cannot run a comprehensive backtest and develop a model that covers both bull and bear markets. Most ETFs began trading in 2000. Therefore, a backtest of a trading system cannot be run using ETF trades but must instead be run on the benchmark indexes that the ETFs track.

Here's an example. Before the Nasdaq 100 ETF (QQQ) was traded, this backtest purchased the Nasdaq 100 index. Before the Dow Diamond was traded, the backtest bought the Dow Jones Industrial Average (DJIA). Before the iShares Small-Cap Russell 2000 was traded, the backtest bought the Russell 2000 index. A list of the ETFs used in the backtest along with their benchmark indexes can be found in Figure 1.

Looking at Figure 1, there is a growth and a value choice for both large-cap and small-cap stocks. Instead of adding a growth and value choice for mid-cap stocks, we only follow one mid-cap index. Traders can add more ETF choices to this list.

I used AIQ's TradingExpert to run the strategy. This software has a prebuilt report called the relative strength-short term report. The report's calculation is simple. It looks at the last 120 days of data (approximately six months) and breaks them into quarters. A percentage change is calculated on each quarter and then the percentage changes are averaged, with twice the weight placed on the most recent quarter's data.

To begin the strategy, the relative strength-short term report was run on the ETFs in Figure 1. At the start of the test, the two best-performing ETFs were purchased with equal dollar amounts to establish a fully invested portfolio. Two weeks later, the relative strength report was run again. If the

Ticker	ETF	Benchmark Index
DIA	Diamond	Dow Jones Industrial Average
QQQ	Nasdaq 100 Tracking Stock	Nasdaq 100
SPY	S&P 500 SPDR	S&P 500
MDY	MidCap SPDR	S&P 400 MidCap
IJS	iShares Small-Cap Value	S&P 600 SmallCap BARRA Value
IJT	iShares Small-Cap Growth	S&P 600 SmallCap BARRA Growth
IWM	iShares Small-Cap Index	Russell 2000

FIGURE 1: STYLE INDEX TRADING VEHICLES. Here you see a list of ETFs along with their benchmark indexes.

current holdings were rated as one of the three best in the report, then there were no trades. If a holding fell in the relative strength report ranking and it was no longer in the top three, then it was sold and the highest-rated ETF was purchased.

Figure 2 shows the relative strength report on January 9. Looking at the report, it is apparent that small-company stocks are leading. As long as the two portfolio holdings are in the top three positions, then there are no trades. At that time, the iShares Small-Cap Index (IWM) and iShares Small-Cap Value (IJS) were held, so no action was taken.

The portfolio was always fully invested in two ETFs or equivalent indexes and rebalanced at the end of every year, giving the two securities an equal weighting. I rebalanced the accounts each year to better see how the strategy performed on a yearly basis, but the rebalancing lowered the overall return. Rebalancing forces you to partially sell your best holdings.

Those who want to employ this strategy may be concerned with liquidity in the ETFs. With ETFs, however, volume does not define their liquidity. Unlike a stock or a closed-end

Ticker	Stock	RSP	Price	%Chg	TS	DTS
IWM	iShares Small-Cap Index	5	114.30	2	99	0
QQQ	Nasdaq 100 Trust Series I	5	37.73	4	100	(0)
IJS	iShares Small-Cap Value	4	101.87	1	99	0
DIA	D J I Diamonds Trust	4	104.69	0	98	1
MDY	S & P Midcap 400	4	106.85	1	100	2
IJT	iShares Small-Cap Growth	4	90.00	1	100	0
SPY	Spyder	4	112.39	1	100	(0)
DVY	iShares Dow Dividend	2	53.80	0	89	(6)

FIGURE 2: RELATIVE STRENGTH SHORT-TERM REPORT FOR JANUARY 9, 2004. The report was run on a list of ETFs and shows two small-company stock tracking funds, IWM and IJS, in the top half of the report.

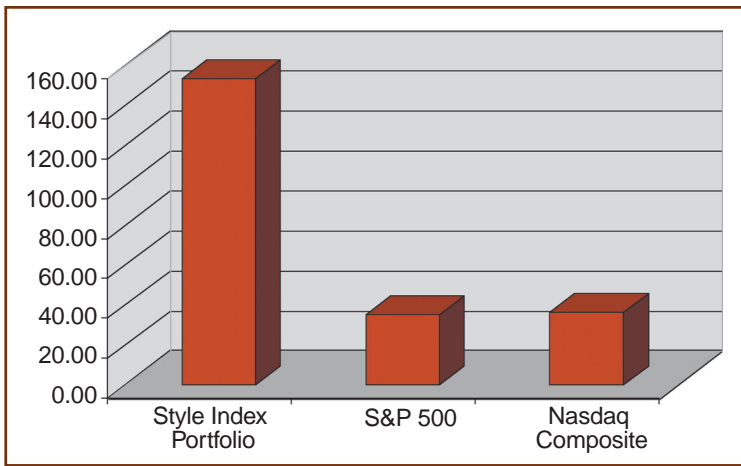


FIGURE 3: PERCENTAGE RETURN. From January 1, 1998, through June 30, 2004, the style index portfolio gained 146.24%, S&P 500 gained 29.27%, and Nasdaq Composite gained 30.39%.

Year	Style Index Portfolio (%)	S&P 500 Index (%)
1998	39.28	28.58
1999	50.01	21.04
2000	-3.10	-9.10
2001	2.10	-11.89
2002	-18.11	-22.10
2003	42.93	28.69
2004*	1.77	3.44

*Updated through 6/30/04

FIGURE 4: YEARLY RESULTS. The style index portfolio outperformed the S&P 500 index every calendar year.

mutual fund, the number of shares in the market is not fixed: If the demand for a given ETF outstrips supply at any point, an ETF specialist can create new ones from a basket of the underlying securities in that fund. When a large transaction is placed, shares can be created or redeemed to meet demand. Studies show a high correlation between the benchmark indexes and the ETFs. Limit orders should be placed on low-volume ETFs, however, as bid-to-ask spreads can be wide.

RESULTS

The strategy is designed to rotate to the segments of the market with the best performance. During the bullish years, returns were led by the strength of the Nasdaq 100 (QQQ) holding. During the bearish years, the portfolio outperformed because it exited the QQQ and rotated to a position in Small-Cap Value (IJS). Small-cap stocks actually rose in value during 2001.

Over the five-year time period, the style index portfolio strategy rose 146% while the Standard & Poor's 500 and Nasdaq Composite rose about 30% (Figure 3). The year-by-year results can be found in Figure 4. The strategy outperformed the S&P 500 index every calendar year, and it held its value during the 2000 through 2001 bear market years. It wasn't until the third quarter of 2002 that all style indexes fell in value, accounting for the 2002 loss.

Figure 5 shows the quarterly percent changes for the style index strategy and for the S&P 500. This strategy nearly always moves in the same direction of the market. An investor should not expect the strategy to rise in value during a falling market. This figure also shows that the strategy is more volatile than the S&P 500. Its volatility level is about 1.3 times greater than the S&P 500.

Keep in mind that this is a backtest, so it does not represent actual returns. The purpose of the backtest was to create and gain confidence in a strategy that can be used to trade ETFs that track style indexes.

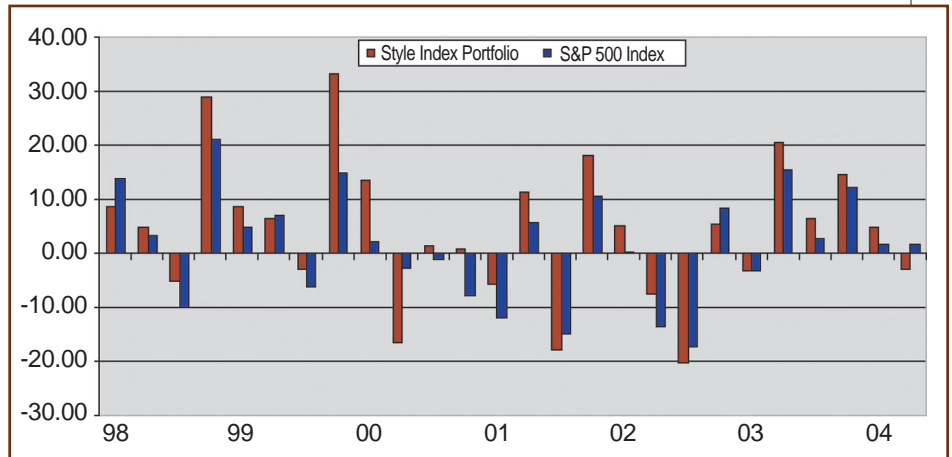


FIGURE 5: QUARTERLY PERCENT CHANGES. The style index strategy is more volatile than the S&P 500.

BACKTEST ASSUMPTIONS

There are many assumptions in this test. The backtest assumed the portfolio was always fully invested in two ETFs. Many of the ETFs were not yet available to purchase at the beginning date of the backtest. When the ETF wasn't available, the backtest used the ETF's benchmark index as a substitute. The backtest used price data from the actual ETFs once they became available. Studies show a high, but not exact, correlation between the benchmark indexes and the ETFs. Here are the specifics:

- The Dow Jones Industrial Average was purchased until January 20, 1998, the date the Dow Diamond became available.
- The Nasdaq 100 Index was purchased until March 10, 1999, the date the Nasdaq 100 ETF became available.
- The Russell 2000 Index was purchased until May 26, 2000, the date the iShares Small-Cap Index became available.
- The S&P 600/BARRA Small-Cap Value Index was purchased until July 28, 2000, the date the iShares Small-Cap Value became available.

- The S&P 600/BARRA Small-Cap Growth Index was purchased until July 28, 2000, the date the iShares Small-Cap Growth became available.
- The MidCap SPDR and S&P 500 SPDR had enough price history so no index substitutes were made.

The securities used for the backtest were purchased using the closing price the day after the buy/sell signal. A commission of \$25 was used; 0.3% per quarter was deducted, which can represent management fees or slippage.

The percentage returns represent a hypothetical backtest, instead of actual performance. The backtest's return and other figures have not been audited but are based upon information obtained from public sources believed to be reliable. Since no funds were managed using this strategy during the period, the impact that material economic and market factors might have had on the trading cannot be represented.

As with any strategy, past performance does not guarantee future results or that losses will not occur.

David Vomund is the chief analyst at AIQ Systems and publisher of VISAlert.com. His newsletter is rated as one of the 10 best by Timer Digest for the 10-year time period ending 12/31/2003. David Vomund employs his ETF-style index strategy in his investment advisory firm. Information on the managed account program can be found at www.ETFportfolios.net.

RELATED READING

Sarkovich, Misha T. [2003]. "Daytrading QQQ," *Technical Analysis of STOCKS & COMMODITIES*, Volume 21: March.

Sweeney, John [1999]. "On The Opening Bell: David Vomund Of AIQ," interview, *Technical Analysis of STOCKS & COMMODITIES*, Volume 17: October.

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