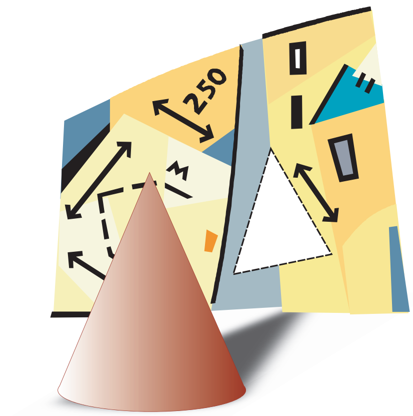
Major Rule Change Made to the Model Shadow Stock Portfolio

By James B. Cloonan



Performance of the Model Shadow Stock Portfolio has firmed a bit this past quarter, but year to date it still lags the S&P 500 index as measured by the Vanguard 500 Index fund (VFINX).

The Model Shadow Stock Portfolio has returned 1.2% year to date as of May 31, while the Vanguard 500 Index fund gained 3.2% over the same period. These and longer-term results can be seen in Figure 1 and Table 3.

In general, small stocks are doing better but value stocks are still lagging the market. Overall, the stock market's performance is below average for the first five months of 2015. This year certainly does not look like the typical pre-election year, but we do have seven months to go.

Major Rule Change

Over the years, the number of qualifying stocks we encounter in each period has varied considerably. We have had times with zero qualifiers, and in 2008 we reached almost 100 qualifiers. Beyond this volatility, I believe there has been a fundamental shift that will provide fewer qualifying stocks on average under the current rules. This shift may be due to more awareness of the superiority of micro-cap stocks, or

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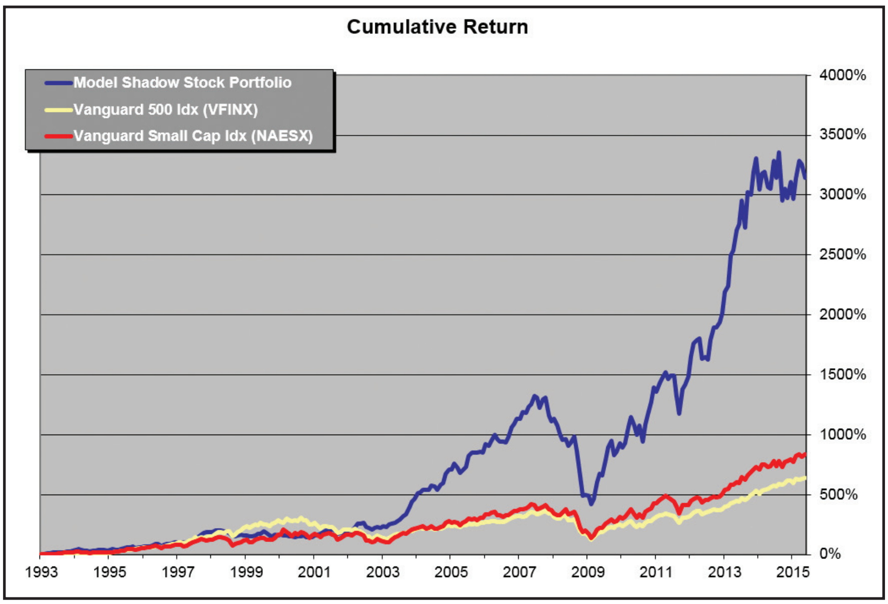
Figure 1. Model Shadow Stock Portfolio vs. Benchmarks (Through 5/31/2015)



Portfolio	Year-to-Date Return (%)	Annual Return (%) 1-Year	3-Year	10-Year	Ann'l Std Dev (%)	3-Year Risk-Adjusted Return (%)*
Model Shadow Stock Portfolio	1.2	3.1	23.3	15.0	17.9	13.0
Vanguard 500 Index (VFINX)	3.2	11.7	19.5	8.0	8.3	19.5
Vanguard Small Cap Index (NAESX)	5.0	11.3	20.7	9.8	10.9	16.8

**Relative to Vanguard Total Stock Market Index fund (VTSMX).*
Data as of 5/31/2015.

Table 1. The Model Shadow Stock Portfolio

Company (Ticker)	Current Price ($)	52-Week High ($)	52-Week Low ($)	Market Cap ($ Mil)	P/E Ratio (X)	P/B Ratio (X)	Div Yield (%)	Notes
Alamo Group, Inc. (ALG)	52.97	64.45	37.93	603.1	15.2	1.80	0.6	
CDI Corp. (CDI)*	12.37	19.24	11.93	243.0	154.6	0.91	4.2	
CSS Industries Inc (CSS)	27.59	33.00	23.11	257.8	15.3	0.95	2.6	
Ducommun Incorporated (DCO)	23.29	33.45	22.60	257.5	20.6	1.00	0.0	
Ennis, Inc. (EBF)	16.82	17.21	12.51	434.1	nmf	1.52	4.2	
Flexsteel Industries (FLXS)	37.77	38.43	28.56	281.0	13.0	1.55	1.9	
Global Power Equip (GLPW)	7.48	17.68	7.42	128.4	11.5	0.45	4.8	
Hardinge Inc. (HDNG)	10.70	13.29	9.70	137.5	nmf	0.81	0.7	
Hooker Furniture Corp. (HOFT)	25.27	27.30	13.66	273.2	21.8	1.90	1.6	
Key Tronic Corp. (KTCC)	11.41	12.49	7.50	120.4	42.3	1.21	0.0	
Kimball Electronics (KE)	15.58	16.13	5.19	454.5	18.8	1.50	0.0	
L S Starrett Co. (SCX)	18.11	21.95	12.62	126.6	14.4	1.06	2.2	
LMI Aerospace, Inc. (LMIA)	9.96	15.39	9.90	131.3	nmf	1.08	0.0	
Marlin Business Services (MRLN)	17.87	21.75	15.97	229.2	12.3	1.27	2.8	
Olympic Steel, Inc. (ZEUS)	17.54	25.83	10.44	192.9	nmf	0.70	0.5	
PC Connection, Inc. (PCCC)	24.92	29.50	19.26	656.7	15.0	1.81	0.0	
PCM Inc. (PCMI)	9.69	11.82	7.43	116.8	484.5	0.92	0.0	
RCM Technologies, Inc. (RCMT)	5.66	7.33	4.61	71.9	10.3	1.64	0.0	
Renewable Energy Group (REGI)	10.63	12.30	8.10	467.0	9.4	0.65	0.0	
REX American Resources (REX)	63.87	110.65	51.63	502.7	7.4	1.43	0.0	
Rocky Brands Inc. (RCKY)	19.17	23.11	12.61	145.0	13.7	1.04	2.3	
Salem Communications (SALM)	4.70	11.00	4.38	119.5	22.4	0.59	5.5	qualified as of 05/31/2015
Shoe Carnival, Inc. (SCVL)	27.64	29.79	16.68	566.1	20.5	1.59	0.9	
SigmaTron International (SGMA)	8.60	12.44	5.55	34.9	30.7	0.62	0.0	qualified as of 05/31/2015
TravelCenters of America (TA)	15.74	18.10	7.92	603.5	7.8	1.07	0.0	
Ultra Clean Holdings (UCTT)*	6.47	10.29	5.26	204.6	35.9	0.96	0.0	
Universal Stainless & Alloy (USAP)	18.05	34.22	17.76	128.0	27.8	0.62	0.0	qualified as of 05/31/2015
Vishay Precision Group (VPG)*	13.20	17.95	12.74	165.0	66.0	0.92	0.0	
VOXX International (VOXX)	8.55	11.55	6.56	206.6	nmf	0.52	0.0	
Willis Lease Finance (WLFC)	18.30	26.19	17.89	151.2	27.3	0.66	0.0	qualified as of 05/31/2015

** Added to portfolio 6/4/2015.*
nmf = no meaningful figure
Source: AAII's Stock Investor Pro*/Thomson Reuters. Data as of 5/31/2015.*

Explanation of Notes

Approaching Size Limit: Stocks are sold if their market capitalization goes above three times the initial maximum criterion and there is a stock to replace it. The current market capitalization maximum for initial screening is $300 million. Stocks are marked "approaching size limit" if their current market cap exceeds 2½ times the initial criterion, or $750 million.

Approaching Value Limit: Stocks are sold once their price-to-book-value ratio goes above three times the initial criterion and there is a stock to replace it. The current initial price-to-book ceiling is 1.00. Stocks are marked "approaching value limit" if their current price-to-book-value ratio exceeds 2½ times the initial criterion, or 2.50.

Earnings Probation: If the last 12 months' earnings from continuing operations are negative, the stock is put on probation; if a subsequent quarter has negative earnings prior to 12-month earnings becoming positive, the stock is sold. The date in parentheses is the fiscal quarter during which the company first reported negative trailing 12-month earnings.

Qualified as of: Stock still qualified as a buy when the screen was run with current data. Stocks that don't currently qualify as a buy are held until they meet one of the sell rules.

See the Model Shadow Stock Portfolio area of AAII.com for more information.

Model Shadow Stock Portfolio Rules

Purchase and Sales Rules

Stock purchases must meet these criteria:

- No bulletin board or pink sheet stocks will be purchased.
- Price-to-book-value ratio must be less than or equal to 1.00. (Figure will change gradually with changes in overall market values.)
- Market capitalization must be between $30 million and $300 million. (Figure will change gradually with changes in overall market values.)
- The firm's last quarter and last 12 months' earnings from continuing operations must be positive and, if there are earnings estimates, the estimates must be positive for the current quarter and year.
- No financial stocks or limited partnerships will be purchased.
- No stocks on foreign exchanges or ADRs will be purchased because of different accounting and/or withholding tax on dividends. Foreign stocks traded primarily on U.S. exchanges are OK with one exception: The stock of any company whose primary business is in China will not be purchased.
- The share price must be greater than $4.
- In order to reduce trading by avoiding stocks that are forever marginal, any stock that was sold within two years will not be rebought.
- Note second item under Stock Order Guidance concerning spreads when buying shares.
- Price-to-sales ratio must be less than 1.2. (Figure may change gradually with changes in overall market values.)
- Eliminate any company that failed to file a 10-Q (quarterly) report in the last six months.

Stocks are sold if any of the following occur:

- If last 12 months' earnings from continuing operations are negative, the stock is put on probation; if a subsequent quarter has negative earnings prior to 12-month earnings from continuing operations becoming positive, the stock is sold.
- The stock's price-to-book-value ratio goes above three times the initial criterion and there is a stock to replace it.
- Market capitalization goes above three times the initial maximum criterion and there is a stock to replace it.

Stock Order Guidance

- These rules are for general guidance. Your own experience, market conditions and the size of the position will impact your own decisions. The results in the model portfolio were obtained while sometimes paying more.
- Market orders are not used. Instead, if the quoted bid-ask spread is less than 2% (ask price minus bid price, divided by ask price), place a limit order at the ask price for a buy and at the bid price for a sell. If the bid-ask spread is more than 2%, try to place a limit order between the bid and ask prices to keep transaction costs low. If necessary, build a position gradually. With low commissions, it is often better to place partial orders than to try to establish a large position all at once. Be patient.
- The average daily dollar volume should be at least four times the amount needed for your position. This will ensure liquidity to get in and out of the position, even if you need to grow the position gradually and sell gradually. This will result in a varying number of qualifying stocks for each investor.
- If price changes cause a stock to become ineligible (due to changes in price-to-book-value ratio or market capitalization) when only part of the order has been filled, stocks already purchased are kept but the balance of the order is canceled.

Management Rules

- Equal dollar amounts are invested in each stock initially.
- Decisions are made only at the end of each quarter. In order to react to the majority of earnings reports as soon as possible, quarterly reviews are made in February, May, August, and November.
- Best judgment is used for tenders or mergers, but all criteria must be obeyed.
- At the end of a quarter, if receipts from stocks sold exceed requirements for new purchases, the excess receipts—up to 5% of the portfolio's value—are kept in cash until the next quarter. If the excess receipts are greater than 5% of the total portfolio value, the amount above 5% is distributed to smaller holdings that still qualify as buys. Efficient quantities are purchased: If over 10% of the portfolio is in cash, the price-to-book-value ratio can be moved up, but never over 1.00.
- At the end of a quarter, if receipts from stock sales are insufficient to buy all newly qualifying stocks, purchases are made based on the width of the bid-ask spread and the number of shares at bid or ask price.
- Note that if you are managing your own portfolio, it should consist of at least 10 stocks. If you are developing the portfolio gradually, you can do it stock by stock, but don't put more than 10% of your funds in each additional stock. More than 20 stocks is not needed until the portfolio exceeds $1 million.

Table 2. Second-Quarter 2015 Transactions

Sell

Company (Ticker)	Reason
Five Star Quality Care, Inc. (FVE)	violated earnings probation
International Shipholding Corp (ISH)	violated earnings probation
Kimball International Inc. (KBAL)	exceeded value limit
Mitcham Industries, Inc. (MIND)	violated earnings probation

Buy

Company (Ticker)	Maximum Price to Pay
CDI Corp. (CDI)	$13.59
Ultra Clean Holdings, Inc. (UCTT)	$6.74
Vishay Precision Group (VPG)	$14.35
Purchased Additional Shares With Excess Cash	
Salem Media Group Inc. (SALM)	

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it might be a side effect of the larger market value of all stocks.

Our current market capitalization requirement of less than $300 million for purchase puts our stocks in the lowest decile (10%) for market cap as generally measured. While both of the lowest two deciles are considered micro-cap stocks, I believe we should stick with the current requirement because smaller size at this level appears to make more of a difference in results than changes in value (measured by price-to-book-value ratio). In addition, with a maximum of three times the initial criterion, we let stocks run well into the seventh decile for market cap before we sell them.

While the price-to-book ratio is very important, we are at a very low level (a high level of value) compared to most measures of value. In the June 2015 *AAII Journal*, Charles Rotblut discussed the role of value and its measurement quite extensively ("Using Book Value to Judge a Stock's Worth"). Most research bases the choice of low or high value on where in the population of price-to-book ratios a stock lies. Is it in the lower half, the lower third, the lower quarter? Based on that, our current rules of a maximum level of 0.80 for purchase would initially put our stocks in approximately the lowest 10%.

The average price-to-book ratio has been increasing in recent years. Based on that, and because I feel comfortable with the notion of stocks selling at book value or less as being bargains per se, I am raising the initial criterion for the price-to-book ratio limit to 1.00. This also means we will not sell a stock because of price-to-book ratio until it exceeds 3.00 (three times the initial criterion), which many analysts would still consider a value stock. This will give us more stocks to choose from and still keep us close to the lower 10% for both market-cap size and price-to-book ratio.

There is one further change having to do with the approach to choosing from among qualifying stocks when the portfolio does not have sufficient funds to buy them all. Since differences between stocks do not seem to be too significant in our range of price-to-book ratio, we will emphasize the transaction costs. Transaction costs are impacted by the width of the bid/ask spread—much narrower being better—but the number of shares at the bid or ask is also important because the spread can widen quickly with large orders. So the lowest transaction cost can be different for different-sized portfolios.

Table 3. Model Shadow Stock Portfolio: Annual Performance

	Average Annual Return (%)			Cumulative Value of $10,000 ($)		
Year	Model Shadow Stock Portfolio	Vanguard 500 Index (VFINX)	Vanguard Small Cap Index (NAESX)	Model Shadow Stock Portfolio	Vanguard 500 Index (VFINX)	Vanguard Small Cap Index (NAESX)
1993	32.3	9.9	18.7	13,230	10,989	11,870
1994	2.0	1.2	(0.5)	13,492	11,118	11,810
1995	20.7	37.4	28.7	16,291	15,282	15,204
1996	22.3	22.9	18.1	19,927	18,775	17,959
1997	44.3	33.2	24.6	28,756	25,010	22,375
1998	(8.9)	28.6	(2.6)	26,188	32,168	21,790
1999	(0.0)	21.1	23.1	26,187	38,945	26,831
2000	(7.7)	(9.1)	(2.7)	24,163	35,418	26,116
2001	21.4	(12.0)	3.1	29,325	31,160	26,926
2002	10.8	(22.1)	(20.0)	32,506	24,259	21,535
2003	73.1	28.5	45.6	56,268	31,174	31,360
2004	43.7	10.8	19.9	80,843	34,530	37,587
2005	17.9	4.8	7.4	95,353	36,180	40,376
2006	29.4	15.6	15.6	123,363	41,832	46,687
2007	(1.8)	5.4	1.2	121,166	44,083	47,227
2008	(50.8)	(37.0)	(36.0)	59,582	27,764	30,217
2009	72.3	26.5	36.1	102,665	35,120	41,130
2010	45.4	14.9	27.7	149,238	40,358	52,529
2011	6.3	2.0	(2.8)	158,701	41,155	51,067
2012	33.3	15.8	18.0	211,588	47,666	60,274
2013	61.0	32.2	37.6	340,599	63,009	82,966
2014	(5.8)	13.5	7.4	320,844	71,516	89,105
YTD	1.2	3.2	5.0	324,694	73,804	93,560
Since Incep	**16.7**	**9.3**	**10.3**	**324,694**	**73,804**	**93,560**

Data as of 5/31/2015.

Finally, we will give preference to U.S. stocks. We do this to avoid being in the currency-predicting business. We will continue to buy foreign stocks (except for those based in China), if they are listed on a U.S. exchange and if they otherwise qualify. But, as with illiquid stocks, they will be the last choices.

The box on page 34 details the current purchase, sale and management rules as well as stock order guidance for the Model Shadow Stock Portfolio.

Portfolio Changes

The portfolio changes this quarter are based on the new rules. The current holdings can be seen in Table 1 and the changes in Table 2.

Four stocks were sold:

- Five Star Quality Care (FVE) violated the earnings rule,
- International Shipholding (ISH) violated the earnings rule,
- Kimball International (KBAL) exceeded even the new price-to-book limit of 3.0 and
- Mitcham Industries (MIND) violated the earnings rule.

Proceeds were used to buy positions in three new stocks:

- CDI Corp. (CDI),
- Ultra Clean Holdings (UCTT), and
- Vishay Precision Group (VPG).

Table 2 indicates the maximum price to pay to stay at or below the new price-to-book limit of 1.00 for these new purchases.

We had some funds left over and bought some additional shares of Salem Communications (SALM) because it currently qualifies and was underweighted in the portfolio.

Looking Ahead

The stock market continues to stay in a holding pattern close to all-time highs. One gets the feeling that it is ready to move dramatically one way or the other, and analysts seem split in their opinion of which direction it will take. There have been two unexpected major influences: a dramatic drop in oil prices and a quick, extensive rise in the dollar. The various impacts of these occurrences are hard to sort out.

I thought we would see the Federal Reserve enable a small rise in interest rates by fall or maybe even the summer if the employment picture continued to improve. However the International Monetary Fund (IMF) is asking the Fed to postpone interest rate hikes until 2016.

I have the feeling that the next three months will be dramatic, but I am not sure in what way.

The next article on the Model Shadow Stock Portfolio will be in the October issue of the *AAII Journal*. In the meantime you can follow the portfolio at AAII.com. ➤

James B. Cloonan is founder and chairman of AAII.

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To be sure, the bulk of the evidence seems to suggest that with the benefit of hindsight, it may be possible to find some valuation-based trading rule that would have outperformed an all-equity portfolio or a balanced portfolio in the past. (Of course, it is always possible to look back, torture the data and find some thresholds for the multiples that would have produced valuable signals and successful strategies, but that was not the goal here; as is often said, if the data is tortured enough, the data will confess.) However, the evidence also seems to suggest that such rules would have been nearly impossible to determine ex ante, on top of being psychologically very difficult to implement.

The fact that multiples are not helpful for asset allocation should not be interpreted as suggesting that they are not helpful for forecasting long-term returns. In fact, the evidence in the top half of Figure 1 suggests that multiples do have predictive power in the long term. In other words, in terms of expected returns, it does make a difference whether long-term investors enter the market when its valuation is high or low.

What explains the failure of multiples to produce useful valuation signals and successful asset allocation strategies? One reason may be that that multiples have forecasting power in the long term, but investors adjust their portfolios frequently. Hence, there is a mismatch between the length of the period for which the valuation signals are useful and the holding period of most portfolios. Put differently, the evidence suggests that although multiples may help long-term investors, they are unlikely to help short-term traders.

Another reason may be that simplicity is often underrated; simple static strategies (balanced portfolios) have been shown to perform as well as—and often better than—more complex strategies in a wide variety of settings. They also require from investors less information, less knowledge and less work to remain on track, and nowadays they even come neatly packaged in low-cost index funds and ETFs (exchange-traded funds). Just as it is better to have the discipline to regularly follow a balanced diet than go from one fad diet to the next, it may be better for investors to avoid excessive trading based on short-term valuation signals and stick to a simple balanced portfolio for the long term. ➤

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