A MATTER OF OPINION

Recent articles and books have questioned whether the concepts underlying Shadow Stocks remain valid. A close look at the statistics indicate that they do.

Neglected Stocks and Small Caps Still Make Sense for Individuals

By James B. Cloonan

I am going to interrupt my series on "Managing Your Own Portfolio" to discuss a number of articles and books (including Mark Hulbert's column this month—see page 28) that have appeared lately questioning whether the characteristics of smallness and neglect—the backbone of the Shadow Stock concept—remain valid.

It is clear that these characteristics have provided a return in excess of market return over the long run. But what about more recently?

Jeremy Siegel, in his book, "Stocks for the Long Run" [Irwin Professional Publishing, 1994] and in articles in the financial press, argues that small stocks outperformed large-company stocks dramatically in the years 1975 through 1983 and that those years distort the long-term advantage; if you eliminate those years, he says, the small stock advantage disappears. It should be pointed out, however, that if you instead eliminate the following nine years, the small stock advantage almost doubles. Who knows which nine years 2000-2008 will be more like?

James P. O'Shaughnessy, in his book, "What Works on Wall Street" [McGraw-Hill, 1997], an extensive study of portfolio strategies from 1955 through 1994, shows that the smaller the company's market capitalization, the better performing the stock group. His objection to a small-cap orientation is that the stocks that provide the highest returns are so small that it is not practical to trade them. Later, he mentions they are too small for mutual funds to invest in, as well.

During the last 12 months, the large-capitalization stocks, particularly those in the S&P 500 index, have outperformed almost every stock market segment. There have always been periods when large caps shine and the current popularity of S&P 500 index funds has occurred before. This recent experience has given rise to all the questioning about the small cap, and Shadow Stock, approach.

AAII does not maintain a Shadow Stock index, so we do not have risk and return data for any Shadow Stock portfolio, since we have always thought of these firms as a universe—a starting base with an advantage—from which individuals could select stocks on whatever basis they choose, and many possible selection criteria have been discussed in the *AAII Journal* over the years. There are some surrogate indexes, however. The Ibbotson Associates' small-cap index, which is widely quoted in the financial press, has outperformed the S&P 500 over the past five years on both an absolute and a risk-adjusted basis. Micro-cap mutual funds ("micro-cap" is the new nomenclature for what used to be "small cap") following all or part of the Shadow Stock approach have also outperformed the S&P 500 on a risk-adjusted basis over the past five years. And the Beginners' Portfolio, which I have discussed in previous columns, has outperformed the S&P 500 on both an absolute and risk-adjusted basis for the four years of its existence.

While I agree with James O'Shaughnessy that it is difficult for large funds to buy very small capitalization stocks, the Beginners' Portfolio has not had trouble so far. I estimate that there would not be a problem unless the portfolio had well over $10 million, and even then we would only have a problem if we restricted purchases to the smallest decile of stocks. This should provide opportunity for most individual investors.

Some studies of small-cap stocks have been flawed by a failure to take transaction costs (commissions and bid-asked spread) into consideration or by giving too much weight to tiny stocks. However, the Ibbotson Associates index and the Beginners' Portfolio, being real portfolios, include transaction costs, and both eliminate stocks with market capitalizations under $10 million.

When other criteria are added to small market caps, particularly value criteria such as price/book or price/sales, volatility (risk) will go down and so might return, but the risk-adjusted return improves. As mentioned above, all the measurable surrogates of AAII Shadow Stocks beat the S&P 500 on a risk-adjusted basis for the past five years (many on an absolute basis as well).

But does "risk adjustment" make sense? Can an individual "spend" lower risk?

Well, yes and no. Many investors will find it too difficult to take advantage of

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the risk adjustment possibilities of either a portfolio of individual securities or mutual funds.

But other investors can do so, and there are a number of different risk measures. The two most common are beta, which measures a portfolio's volatility relative to the Standard & Poor's 500, and standard deviation, which measures the variations of actual returns around the portfolio's average return. AAII's "The Individual Investor's Guide to Low-Load Mutual Funds" provides both of these risk measures. Of course, risk measures are determined by historical returns and, as with returns, there is no guarantee that they will behave in the future as they have in the past.

There are several approaches to adjusting for risk, but for the purpose of explaining how it can be used, I think it is best to look at the concept directly. Suppose you have done what a sophisticated investor should do: You have looked at your entire portfolio and life situation and determined a level of risk you are willing to assume for the attendant return. Suppose it is 70% large-cap common stocks and 30% T-bills (or money market funds). Based on recent history, you could expect such a portfolio to return 0.70 times the market return (S&P 500) of 15% and 0.30 times the T-bill return of 5%, or a total of 12%, with a risk level of the combined standard deviations (9.7% for the S&P 500 and 0% for T-bills) of 6.8%. (Note: When combining standard deviations of various funds, their correlation must be taken into account—how they perform relative to each other. However, in this case the correlation is close to zero, and can be ignored.) You are comfortable with this risk and are willing to settle for the 12% return that goes with it.

Now, suppose going through the Low-Load Guide you discover a fund (the "Better Fund") that has a 6.8% standard deviation, and, lo and behold, it has a return of 14%, which is actually below that of the S&P 500. But because its risk is lower, you can purchase more of the fund—in fact, you now can meet your risk requirements and be 100% in the fund, with an expected return of 14% versus the 12% expected return of your "model" portfolio. Because the fund you found had a higher risk-adjusted return, you are able to get a higher overall return with the same level of risk. The same is true of an individual stock portfolio. Either by putting more of your assets into less volatile stocks, or if you are fully invested in

Table 1.
How to Get More Bang for Your Level of Risk

Substituting a higher risk-adjusted return asset allows you to retain the same risk level within your portfolio, while earning a higher rate of return on your portfolio. This example assumes an investor's Model Portfolio is 70% invested in the S&P 500, with a standard deviation of 9.7% and a long-term return of 15%, and 30% in Treasury bills with a long-term return of 5% and a standard deviation of 0%; it also assumes that the investor has found a "Better Fund" with a 6.8% standard deviation and a long-term return of 14%:

	Model Portfolio	**"Better Fund" Portfolio**
Risk Estimate	(70% × 9.7) + (30% × 0) = 6.8%	(100% × 6.8) = 6.8%
Return Estimate	(70% ×15) + (30% × 5) = 12.0%	(100% × 14) = 14%

If you are already 100% invested in stocks, you can retain the same risk level and earn a higher rate of return by switching to a lower volatility fund (in this example, the "Better Fund" above) or leveraging through the use of margin:

	Model Portfolio	**Leveraged Portfolio**
Risk Estimate	(100% × 9.7%) = 9.7%	(143% × 6.8) = 9.7%
Return Estimate	(100% × 15%) = 15.0%	(143% × 14) = 19.9%*

* This does not include margin borrowing costs. To determine the amount invested: [9.7 ÷ 6.8] × 100 = 143%

You can also invest in higher-returning, higher-risk funds and retain your preferred lower risk level while increasing return by raising your commitment to low-risk assets, such as Treasury bills. This example assumes a "High-Risk Fund" with a standard deviation of 11.3% and a return of 18.0%:

	Model Portfolio	**"High-Risk Fund" Portfolio**
Risk Estimate	(70% × 9.7) + (30% × 0) = 6.8%	(60% × 11.3) + (40% × 0) = 6.8%
Return Estimate	(70% × 15) + (30% × 5) = 12.0%	(60% × 18.0) + (40% × 5) = 12.8%

How to Adjust Returns for Risk (Using Standard Deviation):
The higher the returns relative to the amount of risk, the better. To relate return to risk, divide the portfolio's return by its standard deviation:

	S&P 500	**"Better Fund"**	**"High-Risk Fund"**
Risk-Adjusted Return	15.0 ÷ 9.7 = 1.55	14.0 ÷ 6.8 = 2.06	18.0 ÷ 11.3 = 1.59

equities, by using leverage (margin) to buy more stocks that are less volatile, you can convert less risk into more return and find the highest return for a given level of risk. (Table 1 provides examples.)

One thing to be noted is that the old one-directional investment process—allocate assets to investment classes and then choose the specific investments within each class—isn't sufficient. You need a feedback loop. You can't determine the percentage to allocate to stocks unless you know the risk characteristics of the stocks or funds you will buy. It makes a difference. If you check through your Low-Load Guide, you will find some stock funds that have about the same risk level as some of the balanced funds (stocks and bonds), but higher returns. You can do a quick comparison of funds' risk-adjusted return by dividing their return by their standard deviation—the higher, the better.

The process can work either way. You may find high-risk funds that have such high returns that they can be combined with T-bills to reduce risk and still provide a market-beating return. Mark Hulbert in his *AAII Journal* columns has often discussed this phenomenon when evaluating newsletters. You can buy return by taking on more risk, but it is only a bargain if the risk-adjusted returns improve.

Reflection on the above points will lead to the conclusion that the mutual funds or newsletters that have the highest absolute returns (and which get all the press) don't necessarily lead to the best overall portfolio performance for investors who realize they can leverage up or down to adjust risk.

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Fundamentals of Investing

Philadelphia ..... April 12
Dallas ..... May 3
Columbus, Ohio ..... June 7

How to Be Your Own Personal Financial Planner

San Francisco ..... April 5
Chicago ..... April 26

Investment Math—*New Seminar!*

New York ..... April 19

Mutual Funds

Raleigh, N.C. ..... April 26
New York ..... June

Portfolio Management

Boston ..... April 19
Seattle ..... June 7

Retirement and Estate Planning

San Francisco ..... April 6*
Chicago ..... April 27*

Stock Analysis

Cleveland ..... April 5
Arlington, Va. ..... April 19
Seattle ..... May 3
San Diego ..... May 17

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