

SENIOR CONSULTANT

The Voice of the Investment Management Consultant

Leveraging Through Technological Advances To Make Better and More Timely Decisions

Mamie Woo McNeal

Financial professionals are continually faced with the growing challenge of differentiation. As the financial services industry continues to move toward “better, faster, cheaper” technologies to provide more efficient methodologies to manage client portfolios, we see financial advisors strive to differentiate themselves from the norm. In the highly competitive arena of asset-gathering, advisors strive to incorporate technological tools that readily distinguish themselves in a marketplace where everyone looks the same. Of course, it is even better if these tools are easy to implement. We at *Senior Consultant* believe that we may have found such a tool. In order to fully appreciate how this tool may make early adopters a beacon for more discerning investors with substantial assets, we need first to review modern portfolio theory.

Overview of Modern Portfolio Theory

Developed in the 1950s by Professor Harry Markowitz¹ of City University of New York, modern portfolio theory (MPT) looks at the performance of a portfolio of assets based on the combination of its components’ risks and returns. The premise of this theory lies in the observation that investors expect higher returns for higher risks. Markowitz’s research focused on finding portfolios which offered the highest return, given any investor’s acceptable level of risk. Standard deviations were calculated for securities to ascertain how much a particular security might deviate from its average annual rate of return to establish the security’s volatility to change. That is to say, the greater the standard deviation, the more likely the security’s rate of return will change and the higher the risk. By plotting the return rates and standard deviations for a defined collection of securities (e.g., S&P 500) and all the possible portfolios containing these securities, Markowitz discovered a region bound by an upward curve which he named the *efficient frontier*.

From Figure 1, we see that for any value of standard deviation, the highest rate of return can be achieved if a portfolio is constructed to lie on the efficient frontier curve. The fact that the upper boundary is a curve led to the deduction that diversification of investments could actually increase the return of a portfolio with less risk. For example, if a portfolio were to contain only equal shares of two securities, say, Security x and Security y, whose standard deviations are different (i.e., the vari-

ability of annualized returns are different for each individual security), Figure 2 shows that the standard deviation of the portfolio is less than the average standard deviation of the individual securities. This is a direct result of the two securities being uncorrelated, meaning that their price changes are independent of one another. Remember, a small standard deviation value implies less volatility of an investment, or less risk being taken by the investor. Application of this concept generates what is known as “risk-efficient” portfolios.

Characteristics of risk-efficient portfolios were further developed by William Sharpe¹ who expanded Markowitz’s concept to include portfolios with “risk-free” securities, such as cash. Figure 3 on the next page shows that if you select some Security x and combine it with a “risk-free” security, the resulting portfolio will lie somewhere on the straight line joining Security x and cash. (The slope of this straight line is called the *Sharpe ratio*.)

From that realization, Sharpe developed his Capital Asset Pricing Model (CAPM) which shows how the market prices individual securities in relation to their

Figure 1.

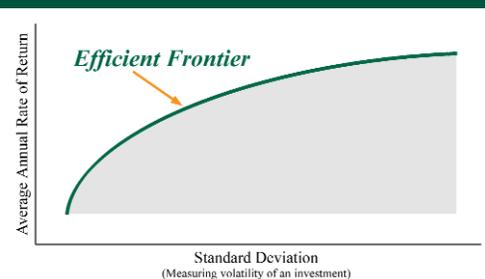
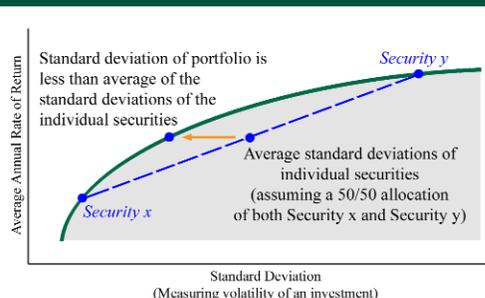


Figure 2.





asset classes. Without getting into a controversial discussion about beta (a variable in the CAPM formula), suffice it to say that CAPM turned finding the efficient frontier for an investor into a do-able task. This meant that if you could define an investor's risk tolerance, you could use technology to manage risk among numerous asset classes (e.g., domestic mid cap value stocks, international large cap growth stocks, etc.). This is important because CAPM indicates that portfolios lying to the left of the efficient frontier are superior to those found below it on the frontier. This means that you are better off with a risky portfolio and cash than with a conservatively-oriented portfolio tilted toward bonds.

What Does All This Mean To Me?

As was true over 50 years ago, it is true today: Investors expect higher returns for higher risk. Today, financial advisors often consult with their clients to identify their most acceptable level of risk in order to create realistic expectations on their portfolio returns. Based on the client's risk tolerance level, the financial advisor may recommend asset managers whom he feels will generate the appropriate portfolio returns based on the manager's investment style, e.g., small cap, mid cap, value, growth, domestic, international, etc. While it is the role of the investor to define his risk tolerance level and the role of the asset manager to generate the best possible returns based on the investor's risk tolerance, it is the role of the financial consultant to oversee the best utilization of the investor's assets to achieve the investor's long-term financial goals. This is often done by the consultant monitoring portfolio performance.

To do so, many advisors compare the client's portfolio returns to market indexes, such as the S&P 500 or Russell 1000. Others compare the client's portfolio performance to returns generated by the managers' peer groups. Both of these comparison techniques have proven to contain flaws/biases (Surz, "Braking Ranks," *Senior Consultant*, January 2003, <http://www.srconsultant.com/Articles/2003-01-Surz-Braking-Ranks.pdf>) in the advisor evaluating client portfolio performance. To bypass some of these flaws/biases and in an attempt to truly compare "apples to

Figure 3.

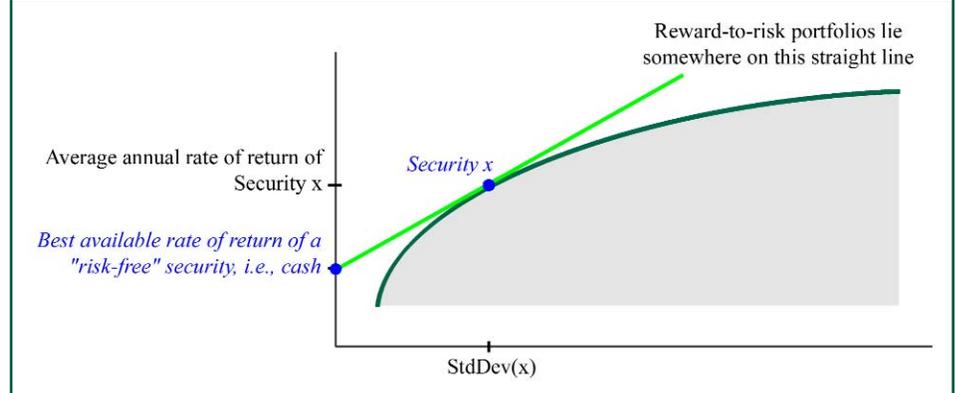
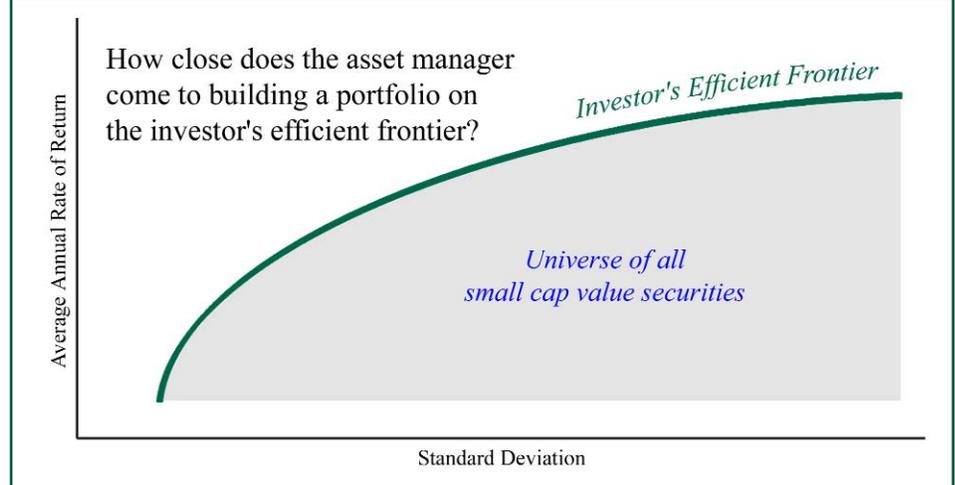


Figure 4.



apples," advisors often use a blending of benchmark indexes and peer group comparisons ("[IMCA Benchmark Survey Results](#)," Investment Management Consultants Association, July 2002, <http://www.imca.org/jic/IMCABenchmarkSurveyIII.pdf>). Although this blending may have provided the best possible comparisons at the time, today's technology has enabled an even better methodology. This methodology, instead of comparing the returns of an asset manager to those of his peers, compares the return on the portfolio actually created by the manager against all the possible portfolios that he could have created within a given mandate.

Let's consider an example. An investor has identified his risk tolerance to be moderate, and

it is agreed that the assets should be invested within an asset class described as "small cap value." The financial advisor assists in the selection of an asset manager whose style lies in investing in small cap value securities. Now, we have defined the investor's mandate and the manager's universe (Figure 4).

The question becomes: How close does the selected manager come to creating a portfolio of small cap value securities, which lie on the investor's efficient frontier? In other words, how close does the portfolio created by this asset manager come to generating the highest possible portfolio return within the investor's acceptable risk level?

A new methodology, named Portfolio Opportunities Distributions (PODs) by its



developer Ron Surz, utilizes Monte Carlo simulation to generate all the possible portfolios containing the same number of the small cap value securities as that found in the client's portfolio. (In this example, the collection of all small cap value securities is called a "universe.") If our manager has consistently invested within our investor's mandate (i.e., asset class of small cap value securities), then our client's portfolio will be one of those generated by the computer simulation. It is then an easy technological task to rank the performance of our client's portfolio against all other possible portfolios within the universe (Figure 5). To further facilitate the use of PODs for the financial advisor, Surz has now developed Popular Index Portfolio Opportunity Distributions (PIPODs) whereby the advisor can specifically designate the universes to be the various S&P, S&P/Barra and Russell benchmarks. By keeping an eye on the "bouncing blue ball" of the PIPODs bar chart over time, an advisor can easily and clearly see how portfolio performance may or may not be achieving the investor's goals.

Why Senior Consultant Recommends PIPODs

During our review for PIPODs, we were able to obtain the following professional opinions:²

- *It escapes me why so many wait for biased and inaccurate, or at least misleading, universe data when they can get unbiased data almost immediately following any calendar quarter or month.* – David Loeper, CIMA, CIMC, Financeware
- *It's the perfect peer group, actually a "phantom" peer group in that it captures the spirit of everything that the investor could have achieved.* – Barton Waring, J.D., Barclays Global Investors
- *Everyone who has the responsibility to evaluate managers needs a tool that provides an unbiased performance assessment and helps determine the quality of an investment manager.* – Andrew Schaffernoth, Chesapeake Investment Marketing
- *PIPODs - synthetic peer groups - are such an alternative, and Ron Surz, ... has implemented synthetic peer groups in a very intuitive and user-friendly way.* – Larry Siegel, The Ford Foundation

Figure 5.

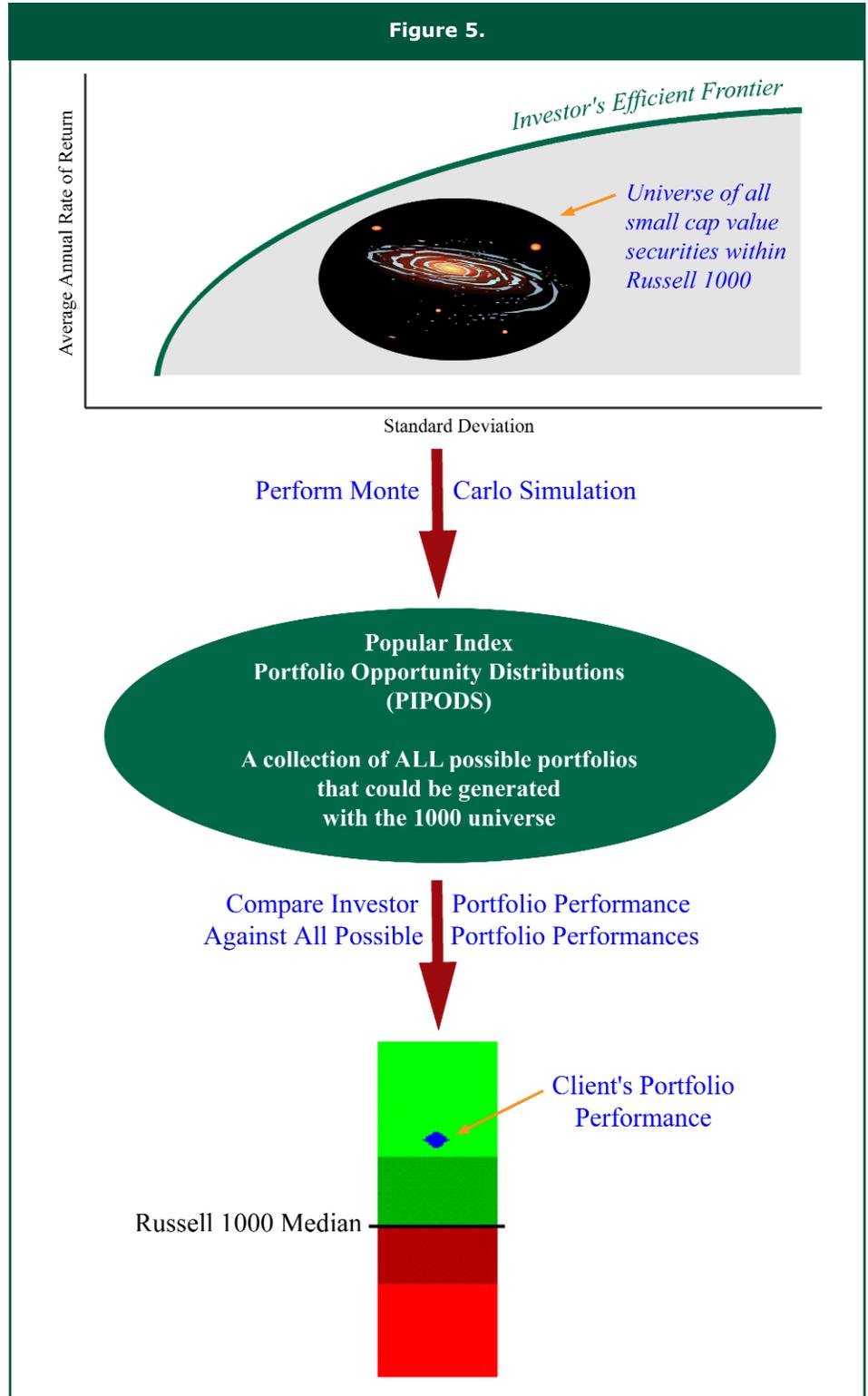
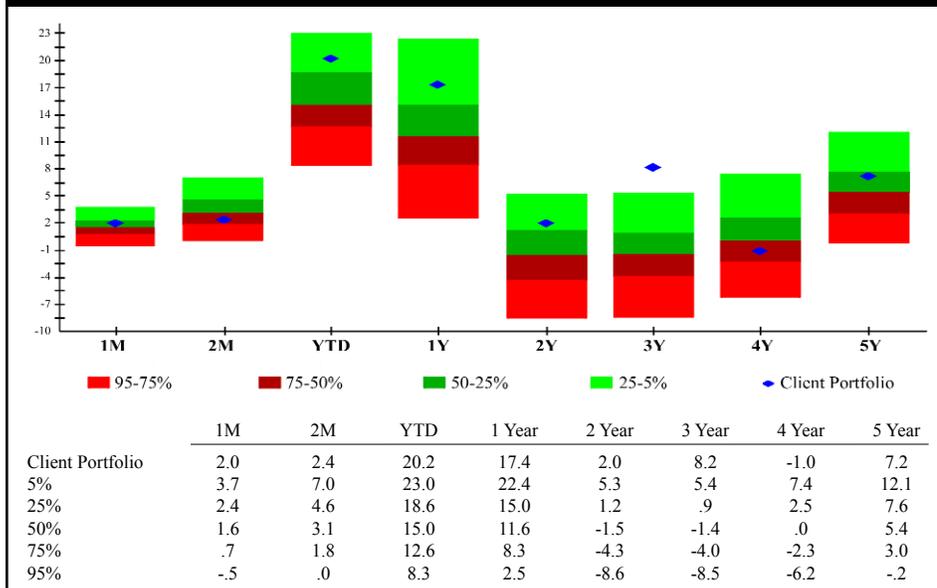


Figure 6.
Russell 1000 Value PODs, Periods Ending 08/03



- *Consequently, performance reports that include clearly defined, style-specific universe comparisons can be generated more promptly, and as frequently as monthly where appropriate.* – Rob Fletcher, CFP CIMA, Madison Investment Advisors
- *Are PIPODs better than actual peer groups? Probably.* – Professor Roger Ibbotson, Yale
- *While every method used to create perspective on investment performance contains weaknesses and assumptions of one sort or another, PIPODs come closest to giving the professional a fair and timely perspective they can share with their clients and use to improve their portfolio oversight skills.* – Barry Mendelson, Capital Market Consultants

In trial tests using PIPODs to evaluate portfolio performance, *Senior Consultant* found the program easy to use with a variety of investment styles. Oftentimes, when one manager's investment style was out of market favor, another was not. (Remember the efficient frontier is a curve so that diversification does impact portfolio performance.) What was even more significant in terms of time and effort was our ability to see the "bouncing blue ball" bounce off the floating bar (Figure 6). This led us to call our asset manager and say, "Congratulations! What did you do differently?"

As good stewards of our client's assets, we know that whatever this particular asset manager did differently to bounce off the floating bar could have significant impact on the portfolio's total performance. Fortunately, our manager bounced off the bar at the top, so at least his performance was good, but we needed to be sure that he wasn't taking risks

beyond our client's acceptable level. Communicating these findings with our clients during the interim period between our routine quarterly meetings has proved to be invaluable, as it (1) documents the manager's skill against unattainable perfection, (2) reinforces the client's risk constraints, and (3) provides more timely, accurate and relevant information than is possible with conventional valuation methodologies.

For us, PIPODs is an easy way for us to obtain actionable information that does not require us to wait until 30 days after the end of a quarter to exercise counsel. While other advisors may be waiting for peer group comparisons to their benchmarks, we are taking action, which is the ultimate value added for the client. If clients expect us to be on top of their portfolios day-by-day and to provide counsel accordingly, how could we not use PIPODs, especially since this continuous, comprehensive counsel is required of us by regulatory mandate. ■

Notes:

¹In 1990, both Harry M. Markowitz and William F. Sharpe were named Nobel Laureates in Economics for their pioneering work in the theory of financial economics.

²Complete [Testimonials](http://www.srconsultant.com/PIPODs/testimonials.pdf) may be downloaded from <http://www.srconsultant.com/PIPODs/testimonials.pdf>.



For more information about PIPODs, visit our [Consultant's Toolbox](http://www.srconsultant.com/Toolbox/toolbox.html) web page (<http://www.srconsultant.com/Toolbox/toolbox.html>) and review the PIPODs links.

SENIOR CONSULTANT

THE VOICE OF THE INVESTMENT MANAGEMENT CONSULTANT

- JAMES P. OWEN
Co-Founder
- STEPHEN C. WINKS
Co-Founder, Publisher & Editor-in-Chief
- SYDNEY LEBLANC
Consulting Editor
- MAMIE WOO MCNEAL
Production Editor
- EDDIE BRYANT
Marketing Consultant



Advisory Board

- JERRY BOTT
Bott Anderson
- JOHN BROCK
Brock-Hazzard/Wachovia Securities
- DICK CHARLTON
New England Pension Consultants
- BOB CLUCK
Canterbury Capital
- HAROLD EVENSKY
Evensky Brown & Katz
- JEFF FRUM
Wells Fargo
- RICH GLEASON
Salomon Smith Barney
- KATHLEEN E. HEGENBART
Salomon Smith Barney
- BRIAN HUNTER
Prudential Securities
- GREG HUNTER
Merrill Lynch
- BILL JOHNSON
CapTrust
- JOHN KELSEY
Salomon Smith Barney
- KEITH PHILLIPS
Morgan Stanley Dean Witter
- BOB ROWE
Morgan Stanley Dean Witter
- DICK SMITH
Cap Group
- JIM YANNI
Yanni Partners

SENIOR CONSULTANT

1457 Crystal Springs Lane
Richmond, Virginia 23231
Ph 804-643-1075 ■ Fax 804-643-1544
www.SRCONSULTANT.COM