

MONTHLY

VOLUME 3, ISSUE 10 OCTOBER 2006

MEASURING RISK & PERFORMANCE

Introduction

In a prior *Monthly* publication (October 2005), we described the basics of our performance reporting, specifically the decomposition of return. This decomposition provides our clients with information about the strategies that helped performance, and those areas that might have reduced their portfolio's return.

Our performance reporting has a substantial amount of information in addition to the return decomposition. Given a year of returns data, clients will see a number of risk and return measures displayed on the "Statistics" page in the performance area of the website. In this *Monthly*, we will review and explain some of these measures.

Background

Getting a good return from your portfolio is important. Just as important is understanding how that return

was generated.

For instance, someone may have earned 10% on their assets, but in isolation it is hard to tell whether that is good, bad, or simply in line with what should have been expected. If in general markets were up 20%, maybe that 10% wasn't so good – this basic return information is captured in the simple comparison of the portfolio against its benchmark.

On the other hand, if markets weren't strong and the benchmark was only up 5%, is that 10% portfolio return a great outcome? The answer is "not necessarily" since it will depend on how much risk was taken to achieve the result. If there was a significantly greater amount of risk than the client wanted, then this return may be a sign of a problem. The manager might not be paying attention to the client's risk tolerance.

This is why we present risk and related statistics – to

provide our clients with information that enables them to evaluate their investment performance comprehensively.

Examples & Explanation

Figure 1 shows the annualized return and risk on a portfolio for an 18-month period through August of 2006. Both the portfolio and its custom benchmark had very good returns, as non-US equity markets turned in strong performance over this period. In this case, the portfolio's return fell slightly short – 0.25% or 25 basis points – of the return on the benchmark. (Again these are annualized returns, since there are more than 12 months of data.)

Although the portfolio return was slightly below the benchmark, its risk was considerably lower. As explained on our client website, the risk measure we use

(Continued on page 2)

CURRENT TOPICS

Measuring Risk and Performance

- Introduction
- Background
- Examples & Explanations
- Sharpe Ratio
- Beta
- Alpha
- Conclusion

STRATEGY

There were no strategy changes in the month of September. Portfolios remain underweight non-US equities, high yield and emerging debt.

“GETTING A GOOD RETURN FROM YOUR PORTFOLIO IS IMPORTANT. JUST AS IMPORTANT IS UNDERSTANDING HOW THAT RETURN WAS GENERATED.”

Figure 1: Return & Risk Comparison

	Portfolio	Benchmark	Difference
Return	8.46%	8.70%	-0.25%
Risk	4.59%	5.36%	-0.77%

Note: numbers in Figures may not add due to rounding

MEASURING RISK & PERFORMANCE - CONT'D

Figure 2: Sharpe Ratio

	Portfolio	Benchmark	Difference
Return	8.46%	8.70%	-0.25%
Cash return	4.26%	4.26%	---
Excess return	4.20%	4.44%	-0.25%
Risk of excess return	4.39%	5.21%	-0.77%
Sharpe ratio	0.96	0.85	0.10

is the annualized standard deviation of monthly returns, which is commonly used in the investment industry.

Sharpe Ratio

One way to consider adjusting return for the amount of risk was developed by Nobel-prize winner William Sharpe – so it’s named the “Sharpe ratio” after him. This measure uses the levels of risk and return, and is not measured relative to any benchmark.

The concept of the Sharpe ratio is fairly straightforward: if cash is the risk-free

asset, you should expect to receive a return over and above the cash return as compensation for assuming market risk. This return in excess of the cash return is known as *excess return*. The Sharpe ratio is simply this excess return divided by the risk that was taken in order to earn it (in this case, the risk of the monthly excess returns).

$$\text{Sharpe ratio} = \frac{R_{\text{Portfolio}} - R_{\text{Cash}}}{\text{Risk}}$$

In the example from Figure 1, the annualized return on cash was 4.26% over the 18

months. (Clients can find the return on the cash benchmark on the *Portfolio Return Summary* page.) Given the portfolio and benchmark returns in Figure 1, the excess returns were 4.20% and 4.44%, respectively.

Figure 2 shows the returns and risks again, but also includes the resultant Sharpe ratios. As you can see, the portfolio’s risk was significantly lower than the benchmark’s, while the return was only slightly less. Because of this, the portfolio’s risk-adjusted return or Sharpe ratio was greater than the

benchmark’s (0.96 vs. 0.85). More return was obtained per unit of risk taken than would have been the case by holding the benchmark.

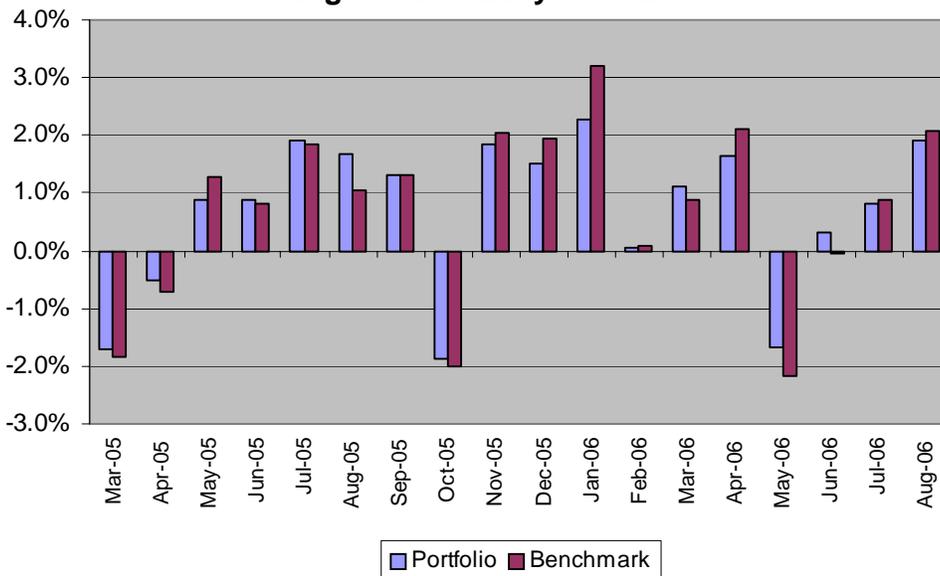
Beta

Another measure of risk that we compute for client portfolios is known as *beta*. Many people are familiar with this term, having seen it in the *Wall Street Journal* or perhaps heard it in discussions of investments. Technically, what beta shows is the sensitivity of the portfolio to changes in the market or benchmark. Many people understand beta as the “amount” of market risk or exposure present in an investment.

As Figure 3 shows, this portfolio tended to rise and fall by less than its benchmark. As a result, the beta for the portfolio was 0.82. This means that the portfolio, on average, only moved 82% as much as movements in the benchmark. In other words, if the benchmark rose (fell) 1.00%, then the portfolio’s lower sensitivity would mean that it tended to rise (fall) by only 0.82%.

This beta value is consistent with the lower risk seen in the standard deviation calculation and is consistent with our strategy of underweighting some of the riskier (more volatile) asset classes. We reduced, and in some cases eliminated, exposure to risky assets in strongly rising

Figure 3: Monthly Returns



About Stairway Partners, LLC

Stairway Partners was formed to provide our clients (starting with ourselves) with an effective and comprehensive solution for managing their wealth. Our disciplined and rigorous approach comes from our collective knowledge in serving large institutional clients over many years.

Our core investment belief is that asset allocation is the single most important determinant of success in any investment plan. The dominant amount of risk and return comes not from your choice of individual investments but from your asset class mix. Stairway Partners focuses our resources on risk management and asset allocation. This includes building your custom blueprint (investment policy and benchmark) and aligning your portfolio with our investment strategy utilizing the global capital markets.

markets – which we clearly articulate in our investment philosophy and process.

Because markets rose strongly, the lower market exposure (beta < 1.0) clearly contributed to the underperformance of the portfolio relative to its benchmark. How much of this 25 basis point shortfall was due to having less market exposure? If the portfolio had 18% less “market risk” than the benchmark

(the difference between the 0.82 beta and the benchmark beta of 1.00), then the answer is 0.80% or 80 basis points (the difference between 4.44% and 3.64% in Figure 4). But, since the actual underperformance was only 0.25% or 25 basis points, what contributed the positive 55 basis points?

Alpha

The answer is *alpha*, which is the part of return that is not due to market exposure.

One way to think about the positive alpha in this example is that the portfolio’s return was higher than would have been generated by its market exposure alone. This difference, the alpha, is the result of the active management of the portfolio. The strategy during this time period underweighted asset classes that did not perform as well as their risk warranted, and the overweights performed better on a risk-adjusted basis.

That produced the positive alpha in this portfolio.

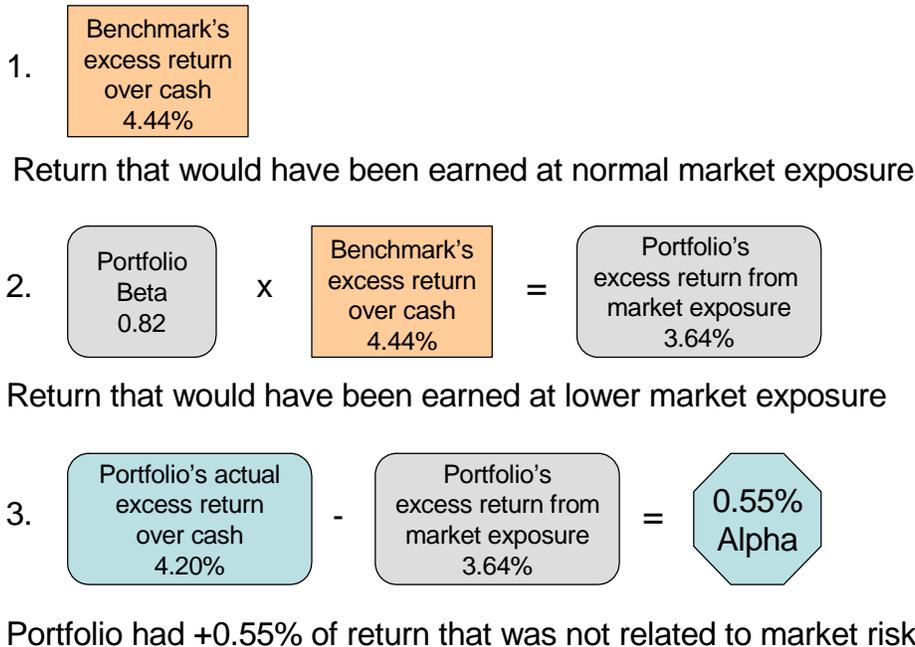
Conclusion

Stairway Partners believes that investors deserve detailed performance reporting. It also provides us with feedback in which to evaluate and assess our own investment process.

As of September 30th, we have added alpha to the *Since Inception* statistics tab for each portfolio.

Figure 4: Measuring Alpha

The component of return not related to market risk



“AS OF
SEPTEMBER 30TH,
WE HAVE
ADDED
ALPHA TO THE
SINCE INCEPTION
STATISTICS TAB
FOR EACH
PORTFOLIO”

Strategy

Asset Class	Expected Return	Hurdle Return	Strategy	Comment
Equities				
small under				
US	4.2%	8.5%	neutral	Exposure equal to normal portfolio weighting
Non-US Developed			small under	Remains unattractive relative to US market
Eurozone	0.2%	7.3%		
Japan	-8.8%	4.5%		
UK	5.0%	8.4%		
Emerging	1.1%	11.6%	under	Asset class inadequately pricing risk
Fixed Income				
US Treasury Bonds			neutral	Sector is fairly priced except at longer maturities
2-Year	4.7%	4.6%		
5-Year	4.5%	4.8%		
10-Year	4.0%	4.9%		
30-Year	3.3%	5.1%		
US Municipal Bonds			neutral	Sector is fairly priced
2-Year	3.5%	3.4%		
5-Year	3.6%	3.5%		
10-Year	3.9%	3.8%		
30-Year	6.1%	4.2%		
US High Yield	4.8%	6.9%	under	Spreads over US Treasuries remain too tight
Non-US Government Bonds			under	Yields generally insufficient compensation for risk
Euro 10-Year	2.2%	4.4%		
Japan 10-Year	0.5%	2.0%		
UK 10-Year	3.4%	5.0%		
Emerging Markets Debt	3.8%	7.2%	under	Spreads over US Treasuries remain too tight
Cash	4.7%	---	over	Allocation comes from overpriced asset classes
10-Year				
Equity Bond Return				
with				
Currency				
Currencies	Expected FX Change	Equity Return with Currency	10-Year Bond Return with Currency	
Euro	-2.9%	-2.7%	-0.7%	Close to fair value
Japanese yen	5.3%	-3.5%	5.7%	Yen is slightly attractive
UK pound	-4.6%	0.5%	-1.1%	Close to fair value

Notes:
As of: 9/30/2006

The expected return is our estimate of the annualized return likely to be generated over a 3-year horizon.

The expected returns are expressed in local currencies (e.g., Japanese equity return is stated in yen terms).

The hurdle rate represents the annualized return that an asset needs to generate in order to cover its risk.

Equity Return with Currency (in Currencies section) is the annual return we would expect a US dollar investor to earn from holding foreign equity markets.

Stairway Partners, LLC © 2006

This material is based upon information that we believe to be reliable, but no representation is being made that it is accurate or complete, and it should not be relied upon as such. This material is based upon our assumptions, opinions and estimates as of the date the material was prepared. Changes to assumptions, opinions and estimates are subject to change without notice. Past performance is not indicative of future results, and no representation is being made that any returns indicated will be achieved.

This material has been prepared for information purposes and does not constitute investment advice. This material does not take into account particular investment objectives or financial situations. Strategies and financial instruments described in this material may not be suitable for all investors. Readers should not act upon the information without seeking professional advice. This material is not a recommendation or an offer or solicitation for the purchase or sale of any security or other financial instrument.