

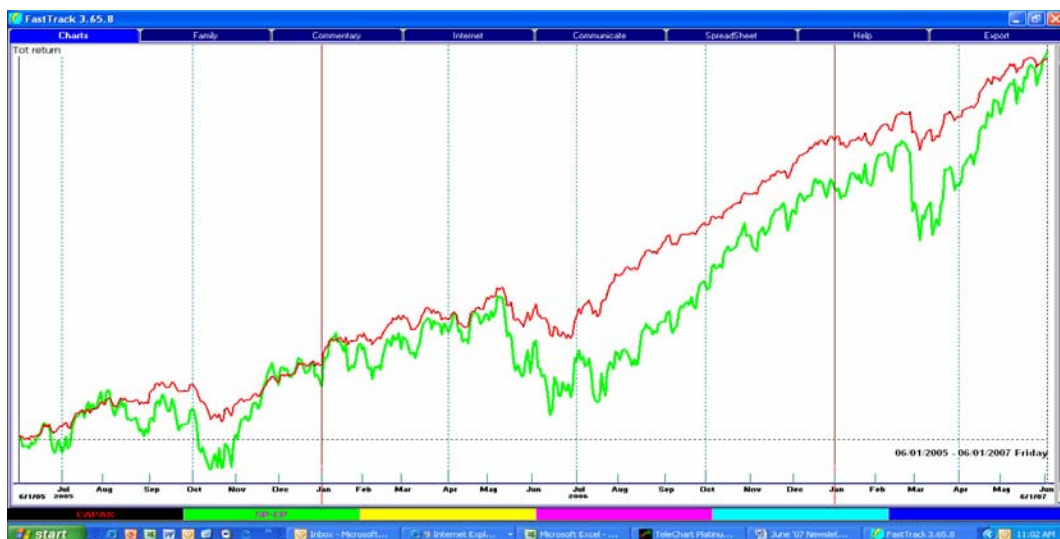
## June 7, 2007 – Ulcer Performance Index A Measure of Risk-Adjusted Return

When choosing mutual fund and exchange traded fund investments, returns should always be evaluated in the context of how much risk was taken to achieve those returns. The goal of investors should be to maximize returns by taking an acceptable level of risk. Measuring returns is straightforward but risk is a bit more complex. There is no perfect measure of risk but that should not stop us from continually striving to evaluate it when selecting investments for our portfolios.

My particular favorite way to measure risk-adjusted return is with the Ulcer Performance Index (UPI). UPI is a measure of risk-adjusted return that takes into consideration downside volatility and is calculated as follows:

$$\text{UPI} = (\text{annualized rate of return of portfolio} - \text{annualized total return of a risk-free investment}) / \text{UI}$$

Where UI is a measure of downside volatility and lower is better. Standard Deviation - a commonly used measure of volatility - measures both upside and downside volatility. I prefer UI...after all, we all like a little upside volatility. Portfolios with higher UPI values (higher is better) have produced better risk-adjusted returns during the calculation period. Let us look at an example. In the chart below we see a plot of two different investments: the S&P 500 in green and a mutual fund\* in red.



Visually it is clear to see the red investment and green investment have provided almost identical returns\*\* over the last 24 months. The difference is in the amount of volatility to get those returns. There were three significant sell-offs in the last two years and it is clear to see from the chart that the red investment performed with less volatility during the three market sell-offs. Let's look at the numbers:

	<u>Two-year Return</u>	<u>UPI</u>	<u>UI</u>	<u>Max Drawdown</u>
Fund	27.2%	11.6	0.86	-3.29%
S&P 500	27.8%	4.11	2.38	-7.70%

The numbers show the fund to have similar returns to the S&P 500 with less than half the maximum drawdown in a market sell-off over the last 24 months. What this means is this fund has performed better in downturns and may also in the future.\*\* Therefore, it may be possible to find investments for our portfolios that perform similar to the market with less downside risk.

- \* NASD regulations do not allow me to publish the name of a specific mutual fund in a newsletter. Call or write if you are interested in the name.
- \*\* Past performance is not indicative of future results. The S&P 500 index consists of a broad range of companies from various industry groups.