

Long Term Performance Review – Buffett & LSGI Partnerships: 'In Search of Alpha'

Warren Buffett is arguably one of the best – if not the best – investor of all time. An investment of \$10,000 in his partnership at the inception of his investing career would today be worth well over \$250 million. Mr. Buffett is currently CEO of Berkshire Hathaway (NYSE symbol: BRKA) and one of the wealthiest individuals on the planet (Forbes rates him # 2 to Microsoft executive Bill Gates, with a net worth of \$44 billion).



At the start of his career Mr. Buffett managed a private investment partnership which was structured and regulated in a manner comparable to the LSGI Fund Partnership. Mr. Buffett actively managed investment partnerships from 1957 until roughly 1969.¹ When he shut down the partnerships investors could either 'cash out' or roll over their investment into Berkshire Hathaway. Those who cashed out did very well – those that rolled their investment over to Berkshire Hathaway did incredibly well.

We thought it would be of interest to review the returns from the first seven years of operation of Mr. Buffett's partnerships and the LSGI Fund Partnership using the Capital Asset Pricing Model ('CAPM'). This model can tell us if either manager generated excess returns – also referred to as 'alpha' – and if so to what degree.

➤ The Buffett Partnerships

While we don't know what investments Mr. Buffett held in his early partnerships we do know the historical annual gross returns he reported to investors. Buffett's early returns were as spectacular as his returns in more recent times, especially compared to the market.

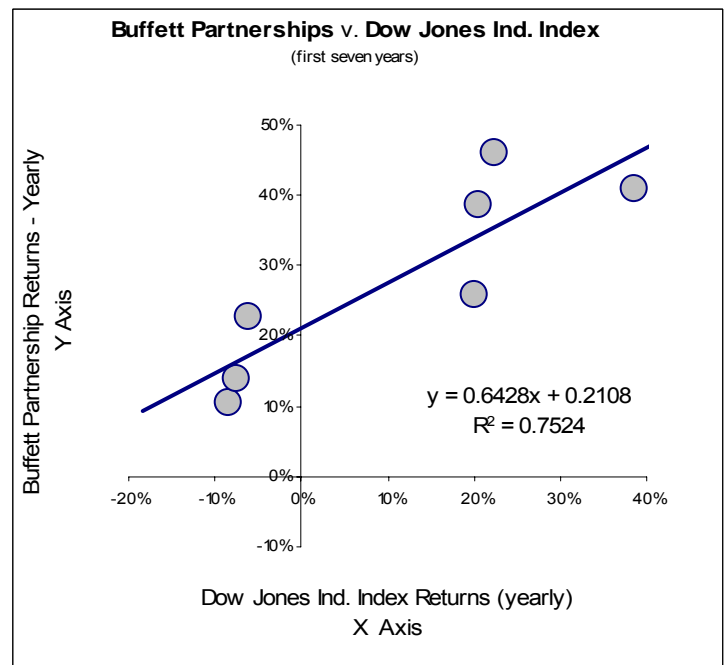
We can graphically represent the Buffett Partnership gross returns during the first seven years of operations versus the Dow Jones Industrial Index (see chart). We use the Dow Jones Industrial Index as a benchmark because Mr. Buffett's goal was to outperform that index by 10% per year.

When we review the performance chart of the Buffett Partnerships several interesting observations can be made:

- Note that the market – defined as the Dow Jones Industrial Index since that is the Index Mr. Buffett used as a benchmark – performed relatively well. In four of the first seven years of the Buffett Partnerships the Dow Jones Index gained 20% or more.
- Even in those years when the market declined, the Buffett Partnerships posted a gain for the year. This consistency is incredible. It is unfortunate that we cannot look inside his portfolio or review his strategy to determine how he accomplished this feat.
- Statistically we can review the historical performance data to determine how much of the gains in the Buffett Partnerships could be 'explained' by the market. This statistic, referred to as the coefficient of determination, is also known as 'R squared'.

For the first seven years of the Buffett Partnership 75.24% of the return can be 'explained' by the market using this statistic. As a comparison the Fidelity Magellan Fund has a coefficient of 89, meaning 89% of the return of the Magellan Fund is explained by its' market benchmark index.

- We can use the Capital Asset Pricing Model ('CAPM') to determine the risk adjusted 'excess returns' that were generated by Mr. Buffett as manager of Buffett Partnerships. These excess returns are known as 'alpha' (α) – and have been defined as ***that portion of an investor's return that is due to the skills of an investment manager rather than the returns of the overall market.***²



¹ The information on the Buffett Partnerships, and performance data, come from Robert Hagstrom's book entitled "The Warren Buffett Portfolio" and Andrew Kilpatrick's book entitled "Of Permanent Value". Gross performance data, before the allocation of incentive fees, was reported annually.

² Quote from Ben Warwick's book entitled 'In Search of Alpha', page 3.

According to the CAPM model Mr. Buffett generated excess returns (or alpha) of 21.08% per year – an incredibly high value. An easy way to determine alpha is to observe the level of predicted return of the Buffett Partnership when the Dow Jones Index returns zero (x=0).

For the CAPM model we use a line of best fit that is statistically calculated using a linear regression analysis. Investors can also ‘draw’ their own ‘line of best fit’ to determine Mr. Buffett’s excess returns. In either case, the excess returns will be substantial for an actively managed portfolio – and incredibly impressive.

- Over the first seven year period of the Buffett Partnership an investor in the Dow Jones Industrial index would have a compounded gross return of 10.0% per year. One thousand dollars invested at inception would be worth \$1,948.
- Over the seven year period an investor in the Buffett Partnership would have a compounded gross return of 27.7% annually. One thousand dollars invested at inception would be worth \$5,543 at the end of seven years before the general partner incentive allocation.
- The Buffett Partnership outperformed the Dow Jones Industrials Index by over 17.7% per year for the first seven years of his partnership – and easily met his investment goal.

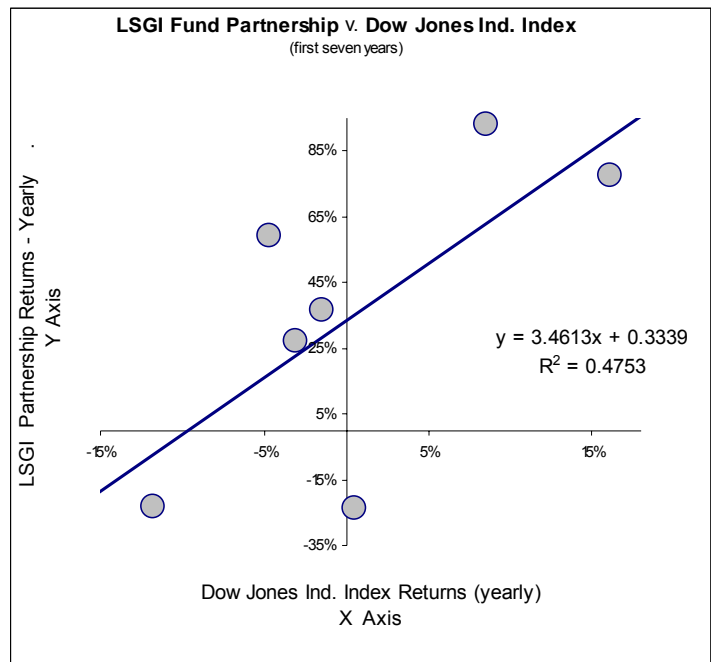
➤ **The LSGI Fund Partnership vs. Dow Jones Industrial Average**

Our goal as an active portfolio manager of the LSGI Fund Partnership is to substantially outperform all the major indexes over the longer term. In theory our strategy should provide excess long term returns to our investors.

With seven years of historical data now ‘in the books’ we can analyze the performance of the LSGI Fund Partnership using the same CAPM model that we discussed above. Our performance can be graphically represented (see chart).³

As with the Buffett Partnership, we find some very interesting observations regarding the returns of the LSGI Fund Partnership and the market over the first seven years:

- Note that the market – defined as the Dow Jones Industrial Index – did not perform as well for the LSGI Partnership as it did in the first seven years of the Buffett Partnership. The market did not gain 20% in any of the LSGI Partnership years – versus four of the first seven years in the Buffett Partnership.
- Twice in the last seven years the LSGI Partnership declined in value. The market itself declined in four of the first seven years. Losses are three times as painful for investors as gains according to behavioral analysts – and painful for the investment manager.
- Returns from the LSGI Partnership were not as consistent as the Buffett partnership – and were much more volatile on both the upside and downside. Volatility equals risk according to some theories; the higher the volatility the higher the risk.
- A review of the historical performance data to determine how much of the gains in the LSGI Partnership could be ‘explained’ by the market reveals that the coefficient of determination (“R squared”) for the first seven years was 0.4753. This means that 47.53% of the LSGI returns can be attributed or ‘explained’ by the market - 75.24% of the return of the Buffett Partnership was ‘explained’ by the market.



- The risk adjusted ‘excess returns’ that were generated by the manager for LSGI Fund investors during this period – the measure of ‘alpha’ (α) – was 33.39% per year under the CAPM linear regression model. Using the line of best fit the LSGI Fund is forecast to earn 33.39% when the Dow Jones Industrial Index returns zero (x=0) – the Buffett Partnerships had an alpha of 21.08% per year after the first seven years of operation.

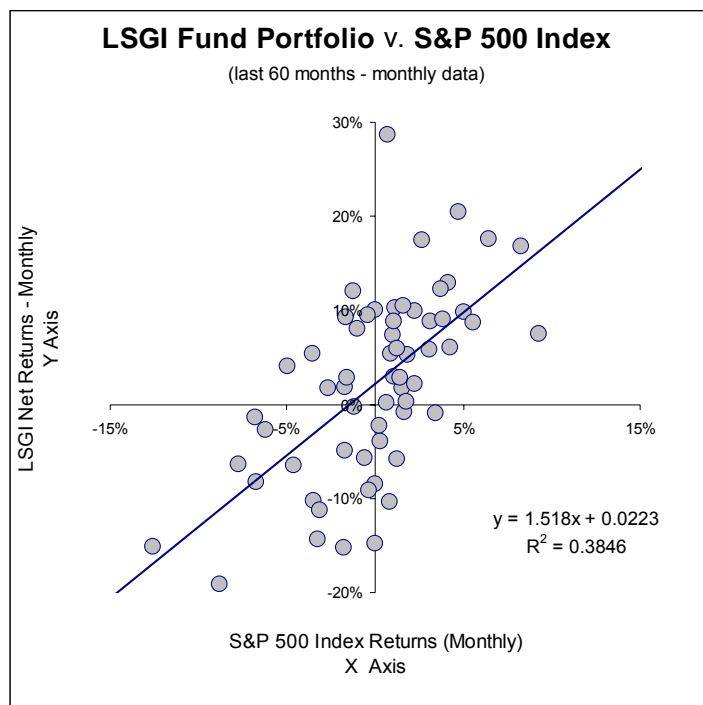
³ The chart and LSGI Partnership data represent gross annual returns, before allocation of incentive performance fees. Gross returns were used to make the analysis consistent with the analysis of the Buffett Partnerships gross return data. In the Buffett Partnerships the general partner was allocated an incentive fee equal to 25% of any gains over 6% per year. In the LSGI partnership the general partner is allocated an incentive fee of 20% of any gains, subject to a ‘high water’ provision should the portfolio decline.

- Over the seven year period an investor in the Dow Jones Industrial index would have a compounded gross return of 0.1% per year. One thousand dollars invested at inception would be worth \$1,016.
- An investor in the LSGI Partnership in the seven year period would have a compounded gross return of 27.9% annually. One thousand dollars invested at inception would be worth \$5,621 before the general partner incentive allocation.
- Gross returns of the LSGI Partnership outperformed the Dow Jones Industrials Index by 27.8% per year, the S&P 500 Index by 29.0% per year, and the Russell 2000 Index by 21.1% per year in the first seven years of the Partnership.

➤ **The LSGI Fund Partnership vs. S&P 500 Index**

A more statistically significant method to analyze our performance would be to compare the net performance of the LSGI Fund Partnership, after all fees and expenses, versus the Standard & Poor's 500 index for the last five years (60 months) on a monthly basis. Reviewing the CAPM linear regression model we find that the results are roughly similar to those discussed above. Over the last five years:

- The coefficient of determination ("R squared") is 0.3846, meaning that 38.46% of the performance of the LSGI Fund Partnership was 'explained' by gains or losses in the market. This value is a relatively low coefficient, meaning the performance of the portfolio in large part is explained by factors other than the performance of the S&P 500 index.
- Alpha, the excess value added by the manager, has been 2.23% *per month*. Remember the alpha in this case is the net excess value added for investors, after all fees and expenses. The data is significant at the 95% confidence level.
- The volatility of the LSGI Fund Partnership is much higher than the volatility of the market - by roughly 1.5 times.
- Over the last five years the S&P 500 index has on average gained 0.8% *per year*. The LSGI Fund Partnership had a net gain of 29.7% per year on average after all costs and expenses.



➤ **Discussion & Analysis**

When reviewing the historical performance of the LSGI Partnership keep several things in mind:

- (1) The CAPM model discussed above is just that – a model. At times the model has limited value as a forecasting tool;
- (2) Due to the limited data from the Buffett Partnerships some the results discussed above may or may not be 'statistically significant';
- (3) Historical performance of any portfolio may not accurately reflect future performance or results; and
- (4) Markets and attractive sectors can and do change with time, along with their appeal to investors, so future performance might vary in unexpected ways.

Keeping the above limitations in mind, we draw the following conclusions with the seven years of data:

- (1) The LSGI Partnership has generated substantial excess returns for our long term investors;
- (2) To date the portfolio has met our goal of 'substantially outperforming' all the major market indexes;
- (3) While delivering excess returns, the LSGI portfolio also exhibited excess volatility – which we think reflects liquidity issues in the small company sector and market inefficiencies, not necessarily the 'risk' of the companies in our portfolio. Other investors might draw different conclusions.

Because of the quantitative nature of our management style, and the nature of our strategy, as manager of the LSGI Partnership we think the portfolio will continue to exhibit above average volatility. We also think the probability is high that we will continue to meet our long term goal of outperforming the major market indexes.