

## LSGI Technology Venture Fund L.P. – 10 Year Performance vs. Small Cap Benchmark

Active portfolio managers, those that buy and sell stocks in a portfolio as compared to those who passively track an index, have generated very meager investment returns over the last decade. Some experts, like Vanguard's John Bogle, claim that active managers have done so poorly investors would be best served if they invested in a passive portfolio that tracks the market indexes.

Bogle is famous for his insistence, in numerous media appearances and in writing, on the superiority of index funds over traditional actively-managed portfolios. He believes that it is folly to attempt to pick actively managed mutual funds and expect their performance to beat a well run index fund over a long period of time.

Bogle makes a very compelling argument for this indexing proposition, supported by extensive historical and performance statistics. Many institutional investors have followed his advice.

The 'active' versus 'passive' issue raises a question for LSGI Fund investors:

Were the returns of the LSGI Technology Venture Fund L.P. 'explained' by the gains and losses of the Russell 2000 Index during the last 72 month (six year) period, or did LSGI investors obtain 'excess returns' due to the manager's actions (skill or luck) during that period?

Should the returns of the actively managed LSGI portfolio under-perform the Russell 2000 Index during this time period a strong case could be made that investors should look at a passive indexing investment strategy.

**CAPM Model** One of the models used by institutional investors to determine if a portfolio manager is generating excess returns over and above what is expected from the market is called the Capital Asset Pricing Model ('CAPM'). The CAPM model is a linear regression which analyzes a set of data points using a mathematical formula.

The end result of the CAPM analysis is a straight line that is mathematically placed through the data points. This line of best fit can be used to determine how well – or poorly – the portfolio performed compared to the market benchmark. The results can tell us if the portfolio returns were due to fluctuations in the market, or were generated by the decisions of the portfolio manager.

We took the 72 months of performance data from the LSGI Technology Venture Fund L.P. ending July 1, 2009 – six years of data – and compared it to the performance of the Russell 2000 Small Cap Index during that period for the CAPM analysis.

We used a six year stretch of data because that period was long enough for the results to be statistically significant. A six year period also avoids the model mistaking short term trends for longer term results. The LSGI net returns were after all costs, expenses, and incentive allocations.

We used the Russell 2000 Small Cap Index as a benchmark because it best represents the performance of the market's smaller public companies – the sector we are primarily invested in. The median market capitalization of the Russell 2000 Index is around \$325 million – very close to our median market capitalization as of July 1<sup>st</sup> of around \$275 million.

Drawing a straight line through the set of data points using the linear regression model, we find the excess returns generated over and above what would be expected from the movement of the market itself is measured where the line intersects the point where the Russell 2000 index has a return of zero. This measure is known as alpha (' $\alpha$ ').

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**72 Month Model Results** The results of the CAPM model, and out interpretation, are as follows:

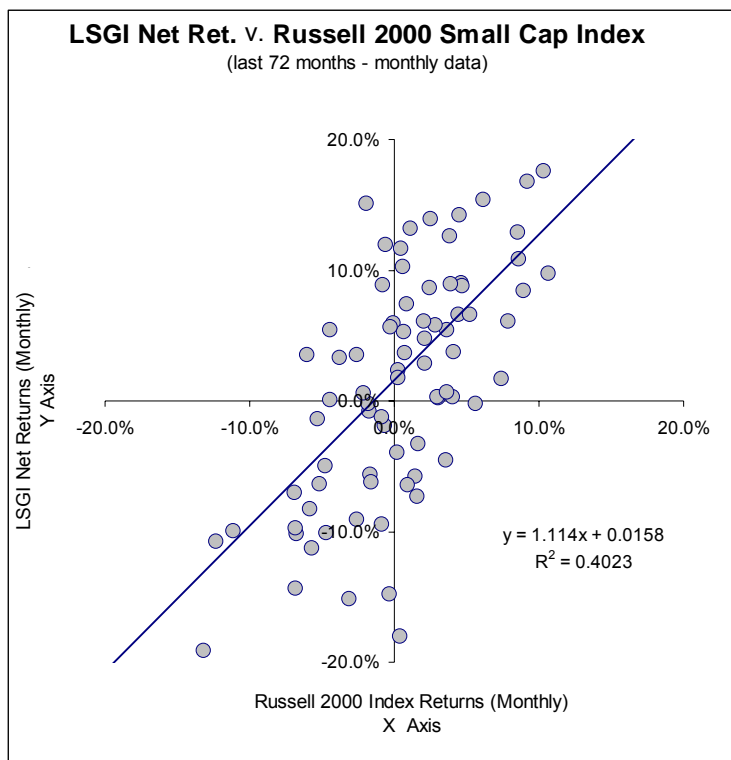
CAPM v. Russell 2000 Index - July 1, 2002 to July 1, 2009			
	Alpha	Beta	R square
LSGI Partnership	1.58%	1.114	0.4023

For the 72 month period we find that the LSGI Technology Venture Fund L.P. generated excess returns (alpha ('α')) amounting to 1.58% per month net of all fees and expenses (see chart). It is rare for an actively managed portfolio to generate this degree of excess returns – whether generated by luck or by skill.

Note that the coefficient of determination on the chart – designated as “R squared” – is 0.4023. This indicates the majority of the performance of the LSGI portfolio is not explained by movements (gains or losses) in the Russell 2000 index.

If the Russell 2000 index and our portfolio correlated perfectly R squared would be 1.0000. In that case all of the gains in our portfolio would be explained by gains in the market.

For LSGI investors this lack of correlation is a positive event. Excess returns from an asset class that don't correlate closely with the major market indices tend to reduce risk across an individual's total portfolio.



The 'beta', or volatility of the portfolio versus the market average, is 1.114, which means the LSGI portfolio is 1.114 times as volatile as the Russell 2000 index. Volatility is considered a measure of risk according to some analysts, the higher the volatility the more risky the portfolio.

In theory we generated excess returns (alpha) of 1.58% per month over the last 72 months - but are also taking higher risks (beta) to achieve those returns. The results of the regression analysis are statistically significant, and in our opinion fairly represents historical performance, but we have not had the performance or model results audited.

Several things to keep in mind about our CAPM model and the results:

- It is not unusual for CAPM results to vary over different investment periods. The CAPM model is not necessarily predictive of future results.
- The 'beta', or volatility, will be impacted as we raise cash (beta will decrease as cash is raised), so the average beta over the 72 month period may not be truly representative of portfolio risk
- The CAPM model is just that – a model – and the predictive value at times can be suspect
- While results will vary and the CAPM model has weaknesses, the historical results confirm our opinion that our stock selection methodology and active portfolio management activities increase the probability that we can generate excess returns for our investors over time.

August 1, 2009