I. EXECUTIVE SUMMARY

Lucky Penny Investment's strategy was GO BIG OR GO HOME! The DECA SMG competition lasts only three months and Lucky Penny's goals of reaching ICDC required an extreme return in top 1.5% of all regional competitors. Our approach introduced more risk than is typically found in portfolios with a longer investment horizons and where investors are willing to accept more moderate returns. Key elements of GO BIG OR GO HOME are outlined below.

* **Leverage:** Lucky Penny borrowed an additional $50,000 on margin which enabled us to invest approximately $37,000 in each of the four stocks selected. Leverage amplified our overall return on cash.

* **Buy & Hold:** We incorporated buy and hold into our strategy to avoid the unusually high commission rates charged in DECA SMG (1% of transaction value versus typical $10 per trade).

* **Diversification Without Hedging:** Lucky Penny met the diversification requirements of the DECA SMG rubric without including stocks that had a history of prices that moved in opposite directions. We avoided hedging the portfolio stocks with negative correlations.

* **Fundamental Analysis Narrowed Search To Ten Stocks For Closer Monitoring:** Fundamental analysis of future earnings potential narrowed our stock choices to about ten stock prospects. Lucky Penny analysts examined standard measures of valuation (e.g. P/E ratios, dividend yields) and combed through a large number of published articles for each stock. We looked for situations where current market perceptions were underestimating the true earnings potential of the stock.

* **Technical Analysis Picked Four Stocks & Guided Timing Of Our Purchases:** Lucky Penny patiently waited for four of these stocks to hit cyclical lows which General Electric, Tilly's, Hersheys and Tata Motors did in the week of October 12-16, 2014. This set of four stocks also met our goals of diversification and avoided negatively correlated stocks. Lucky Penny purchased these four stocks on October 16, 2014. We then sat back and hoped GO BIG OR GO HOME would pay off, and it did!

We ended the game with a net equity of $114,351.70 and a return of 14.35%. Our strategy of leveraging proves efficient because we were able to make a greater amount of return. Instead of trading our stocks frequently, we thought that borrowing $50,000 to increase leverage and using that money to buy more stocks from businesses would ultimately be a better strategy.

INSERT S&P 500 GRAPH

I. ANALYSIS OF PORTFOLIO PERFORMANCE

When the DECA SMG competition ended on December 5, 2014, our net equity had grown to $114,351.70 from its original $100,000 base. Our GO BIG OR GO HOME strategy allowed Lucky Penny Investments to finish the Stock Market Game in the top 25 of the West Region with a net equity of $114,351.70 and a return of 14.35%. A summary of portfolio performance is presented below.

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Company	Shares Purchased	Cost Per Share	Initial Investment	Gain	Interest	Net Gain	Equity Returns
General Electric	1,530	$26.01	$39,795	$2,693	$115.85	$2,577	10.30%
Tilly's	5130.00	$8.45	$37,090	$6,259	$115.81	$6,143	24.56%
Hershey Co.	410.00	$99.80	$37,347	$3,571	$116.62	$3,454	13.72%
Tata Motors	880.00	$45.90	$36,749	$3,643	$114.75	$3,528	14.24%

II. RATIONALE

A. Contrasting DECA SMG With More Traditional Investing Goals

The DECA Stock Market Game (SMG) 2015 provided a real world context for Lucky Penny Investments to apply what we learned about stock investing in our Business Statistics class. DECA SMG rules were an important influence on crafting our team's investing strategy. Shown below are the rules that most directly influenced us.

- **Stocks Must Be Listed On The NYSE or NASDAQ Exchanges** - This limitation precluded investment in Over-the-Counter stocks but left over 6,500 stocks from which we could choose.
- **Three Stocks Must Be Owned At The End Of Competition** - At least three stocks must be owned at the end of the competition (December 5, 2014). This requirement forced teams to diversify their portfolios and not load up on a single stock. Another rule states that no more than __% of the portfolio can be invested in any single stock. The competition scoring rubric encourages sector diversification in stock selection.
- **Commissions of 1% Of Transaction Value** - These commission rates are generally higher than current norms. Standard brokerage accounts currently charge around $10 per trade. The commission rate of 1% discouraged trading once our initial investments were made.
- **Portfolios May Buy On Margin Up To 50% Of Equity Position** - This rule effectively allowed us to invest a total of $148,500 ($100,000 equity + $50,000 debt - $1,500 commissions).
- **Performance Measured Against S&P 500 Index** - SMG measures portfolio performance against an Index which reduces the disadvantage that might exist as to when a team begins the game. However, we employed leveraging which reintroduced market timing as an important consideration in our stock purchases.
- **Top 25 Teams In West Region Qualify For ICDC** - 1,615 teams competed in the DECA SMG West Region which meant a team would have to finish in the top 1.5%. Our Business Statistics teacher has taught us that prudent stock investors focus on long

term results and diversify to minimize risks. While that makes sense for our investing futures, this competition required us to substantially increase risk in order to achieve the returns required to move onto ICDC. It helped that the $100,000 wasn't real money.

B. GO BIG or GO HOME - Our Investing Strategy For Competition

"Lucky Penny Investment's strategy was GO BIG OR GO HOME! In some respects, our strategy deviated from traditional wisdom when portfolio management goals involve a longer term horizon and one can settle for more moderate returns. The DECA SMG competition lasts only three months and the team's goals of reaching ICDC required an extreme return in top 1.5% of all regional competitors. Key elements of GO BIG OR GO HOME were leverage, avoiding hedges, buy and hold, and stock selection that considered a mix of fundamental and technical analyses.

* **Leverage:** Lucky Penny borrowed an additional $50,000 on margin which enabled us to invest approximately $37,000 in each of the four stocks selected.

* **Buy & Hold:** We incorporated buy and hold into our strategy to avoid the unusually high commission rates charged in DECA SMG (1% of transaction value versus typical $10 per trade).

* **Diversification Without Hedging:** Lucky Penny met the diversification requirements of the DECA SMG rubric without including stocks that had a history of their prices moving in opposite directions. We avoided hedging the portfolio stocks with negative correlations.

* **Fundamental Analysis Identified Stocks For Closer Monitoring:** Fundamental analysis of future earnings potential narrowed our stock choices to about ten stock prospects. Lucky Penny analysts examined standard measures of valuation (e.g. P/E ratios, dividend yields) and combed

through a large number of published articles for each stock. We looked for situations where current market perceptions were underestimating the true earnings potential of the stock.

*** Technical Analysis Guided Our Choice Of Four Stocks & The Timing Of Purchases:** Lucky Penny then patiently waited for four of these stocks to hit cyclical lows which General Electric, Tilly's, Hersheys and Tata Motors did in the week of October 12-16, 2014. This set of four stocks also met our goals of diversification and avoided negatively correlated stocks. Lucky Penny purchased these four stocks on October 16, 2014. We then sat back and hoped GO BIG OR GO HOME would pay off.

C. FUNDAMENTAL ANALYSIS - Looking For Earnings Growth & A Good Story

Lucky Penny Investments reviewed dozens of stocks before picking General Electric, Hersheys, Tilly's and Tata Motors. Our team used fundamental analysis in narrowing our choice of stocks. We considered market perceptions of company earnings in the future. Changes in how the "market" perceives the earnings potential of the company is a major factor in the demand for individual stocks. Lucky Penny reviewed headlines provided in Yahoo Finance for the past six months to identify earnings trends that were not yet fully reflected in their stock price. We wanted to find stocks where "good news" was just around the corner. To illustrate, Lucky Penny analysts have assembled an excerpt for each of the four stocks held in our portfolio. These clips are just one of hundreds of articles reviewed in our fundamental research.

Tata Motors - October 2014 - Source XXXXX "Indian-based stocks... success of their company...Jaguar and Land Rover continue being successful in foreign markets...the success of Zest and Bolt are crucial to the future of Tata's car business in India and the Nano's (2009) latest improvements and modern interiors has caused it to be another success for TTM."

Hershey's- *The Hershey Company* (HSY) reported dismal third-quarter 2014 results following a weak first-half performance. The chocolate giant missed the Zacks Consensus Estimate for earnings while only managing to meet the top-line estimate...Hershey gained market share across all its segments — chocolate, non-chocolate candy, gum and mint. Hershey's first-half performance was below expectations due to abnormal shopping patterns, increased competition in the confectionery category, and challenging macro environment and soft international growth...management continued to witness irregular trends in store traffic...which hurt sales of everyday non-seasonal candy products.

General Electric- August 2014 General Electric is trying to become more of an industrial company. As they attempt this move to becoming an industrial conglomerate, their target price increased by about $4, putting it above $30 (which is more than the company has had since the recession began). As they conducted these events, more people gained confidence in General Electric .

September 2014-GE stock went up when official plans for selling (its) appliances businesses were made public (discussions started in mid-July). GE then sold their appliances business to the Swedish multinational company Electrolux.

Tilly's- Times continue to be tough in the teen-retail patch, as fast-fashion leaders like Forever 21 and H&M have latched on to teen customers' desire for more affordable attire, leading to an unprecedented level of product-price compression,The trend has hurt the results of a wide swath of sector players, including West Coast lifestyle retailer Tilly's (NYSE: TLYS) , a fast-growing purveyor of apparel and accessories that targets an action-sports-loving demographic....Tilly's has leveraged its customers' love for the mythical California lifestyle, no doubt inspired by the Beach Boys' songs, into a national footprint of roughly 190 stores that sell a range of apparel, footwear, and accessories for its teen and young-adult customer base. Unlike other competitors that focus solely on a proprietary brand, Tilly's, reduces inventory obsolescence risk by offering products from a range of merchandise partners, including Billabong, Converse, and Hurley. In addition, the company has cultivated a loyal customer base through its friendly store selling experience, replete with pop music and an open layout, which has allowed it to expand rapidly, nearly doubling its locations over the past five years...Tilly's stock price has been plumbing a 52-week low lately, sitting roughly 25% below its initial public offering price from two years ago. While the current level seems enticing, more so given its debt-free profile, the company is fighting poor traffic and sales trends from its core customer base. Until Tilly's is able to improve those metrics, investors would be wise to let this opportunity pass.

D. DIVERSIFICATION: Company Size, Location & Sector

The DECA SMG scoring rubric required Lucky Penny Investments to create a diversified investment portfolio that choose companies from different sectors of the economy. We also diversified the portfolio by location and market capitalization. Sector and location diversification prevents dramatic losses if one sector's stock prices were to crash. Global diversification is beneficial because the world's economies run on different market cycles. Our portfolio diversification can be reviewed below.

Company	Headquarters	Sector	P/E (trailing)	Market Capitalization	Dividend Yield
Tata Motors	Mumbai, India	Consumer Goods (Major Auto Manufacturer)	11.8	$29.54 Billion	3.70%
Tilly's	Irvine, CA	Sevices (Apparel Stores)	16.9	$237.34 Million	NA
General Electric	Fairfield, Ct	Industrial Goods (Diversified Machinery)	15.7	$261.83 Billion	3.46%
Hershey Co.	Hershey, PA	Consumer Goods (Confectioners)	32.3	$22.02 Billion	2.09%

General Electric, a blue-chip company, combines a conservative approach to business with a lot of innovative products and services, making it a very stable and also profitable business. In our selection of stocks, GE was our anchor, its profitability was high, but its volatility was low.

Hershey was considered a good buy based on its solid stock price performance, growth in earnings per share, revenue growth, notable return on equity and expanding profit margins. In other words, Hershey is a company with high volatility. Although it is harder for bigger businesses to stay volatile, Hershey still has a steady increase of profit margins.

Tilly's has seen solid earnings estimate revision activity over the past couple of months, suggesting analysts are becoming a bit more bullish on the firm's prospects in both the short and long term. This is favorable to our portfolio since taking bigger risks can amount to a greater increase of net income and therefore raise the stock price. Also, its industry is currently in the top three. Selecting a top industry business to invest in, such as Tilly's clothing industry, would keep us in the flow of where all the cash is located. This would greatly increase our chances of making a higher profit.

Tata Motors is one of the largest automobile players in India and is well positioned to take advantage of the robust expected growth in the automobile sector in the foreseeable future. Tata Motors has great volatility. In the Stock Market Game, choosing at least one business with such high volatility was a necessary risk in order to profit the highest possible net equity.

E. AVOID HEDGING: Correlation Proves A Valuable Tool

Correlation was an important statistical tool considered in our portfolio development. Lucky Penny Investments' strategy avoided choosing stocks with negative correlations. Our team learned in Business Statistics that professional money managers often include stocks that are negatively correlated as a "hedge" to decrease risk and moderate volatility. We did the opposite because we wanted to avoid hedging. If we were right in our stock selection, Lucky Penny wanted all of our stocks pulling in the same direction. Another element of our GO BIG or GO HOME strategy!

Using a correlation tool on the Select Sector Spider website, Lucky Penny Investments was able to calculate correlations for our stock prospects from August 2013 to August 2014. Correlations for the four stocks ultimately chosen for the portfolio are reported below. Notice that HSY and GE had a slight positive correlation. The other companies had virtually no correlation. None of the stocks were negatively correlated. The lack of positive correlation offered statistical support that our portfolio was certainly diversified if not hedged.

Company	Tata Motors	Tilly's	General Electric	S&P 500
Tata Motors	1	-	-	0.67
Tilly's	0.00	1	-	0.15
General Electric	0.24	0.20	1	0.91
Hershey Co.	0.21	0.21	0.34	0.68

F. TECHNICAL ANALYSIS - Final Selection Of Four Stocks & Timing Our Purchases

Once Lucky Penny Investments had narrowed our list of stocks to about ten prospects, the last question became how to narrow our selection to just four stocks (as required by our Business Statistics teacher) and when to buy them. Timing was critical if Lucky Penny was to buy low and sell high. Our team planned for no turnover in the portfolio during the competition because the commission rates would likely moderate our returns and keep us from reaching the top 25. Losing two percent (1% selling a stock and then 1% reinvesting those funds) in a competition that lasts only three months was not considered to be a good bet. We were convinced that buy and hold was the way to go.

Our Business Statistics teacher wanted our team to buy all four stocks at the same time, so we began to track technical indicators for a sign of cyclical lows. Lucky Penny Investments patiently waited about a month into the game before buy signals surfaced for four of the stocks - General Electric, Hersheys, Tilly's and Tata Motors. These four stocks met the diversification requirements of DECA SMG, and each stock price appeared to have reached a cyclical low according to two or more of the technical indicators being tracked. Bollinger Bands, Relative Strength Indexes and Stochastic Oscillators were most significant in our timing of these purchases.

Created in the 1980s by John Bollinger, Bollinger Bands is a technical indicator that helps investors determine when to make short term trading decisions. Adding and subtracting a prescribed number of standard deviations from the simple moving average determines the placement of the two Bollinger Bands. In our analysis, our team used a 20-day moving average, and one standard deviation for setting the upper and lower bands. When the bands are close together, it signals that the stock price is fluctuating little and marks a period of low volatility. When the bands are stretched further apart, it shows that the stock price is in a period of high volatility.

Stock traders look for contracted Bollinger Bands as a signal that a period of increased volatility may lie ahead, and vice versa. To determine the price direction that this pending increased volatility will express itself, professional traders examine the placement of the stock price relative to the bands. A buy signal occurs when the stock is trading below the lower Band, and a sell signal occurs when the stock is trading above the upper Band.

We found the basic Bollinger Band application provided relevant insights for General Electric and TaTa Motors. Charts for these stocks (see charts below) showed the Bollinger Bands had been contracted but had begun to expand. We also observed that the stock prices had recently dropped below the lower Bollinger Band. These two observations, contracted Bollinger Bands and a stock price below the lower Band, led us to purchasing these stocks on October 16, 2014.

Relative Strength Index (RSI) is a momentum oscillator that considers the proportion of average stock prices on days when the stock closes higher versus its average stock price when it closes lower. RSI can provide an insight into when a stock is oversold or overbought. If the RSI is above the 70 threshold, it indicates that the stock is overbought and suggests a sell signal. If the RSI falls below 30, it indicates that the stock is oversold and investors are alerted that it may be a good time to buy. Since extended price movements in either direction can lead to false buy or sell signals, RSI is most often used as a secondary support for purchase decisions.

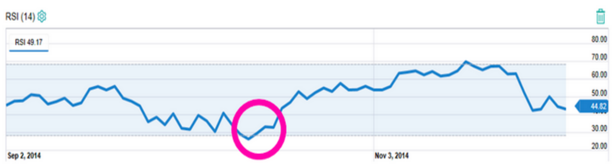
The RSI chart for General Electrics and Tilly's (see charts below) show that their RSIs dropped below 30 in the first half of October. These buy signals provided further support for our decision to buy these stocks on October 16. Notice that the price for General Electrics and Tilly's did increase over the next five weeks. RSI provided correct guidance in this case.

RSI was not relevant for our purchase of Hershey or Tata Motors because the it stayed between 30 and 70 thresholds in the period preceding our purchase decisions, thus indicating a neutral price signal. RSI analysis for these stocks did not contradict our decision to purchase Hershey and Tata Motors on October 16.

EXAMPLE

GE imagination at work

TILLY'S CLOTHING · SHOES · ACCESSORIES



The Stochastic Oscillator communicates how a stock's daily closing price compares with its recent high and low closing prices for a given period of time, usually 14 days. The finance theory underlying this oscillator proposes that a stock closes near its closing high when the stock price is trending up; and closes near its closing low when stock price is decreasing. It is a bound oscillator ranging from 0 to 100.

In its simplest interpretation, investors use oscillator thresholds of 20 and 80 to signal transaction decisions. Buy signals are given when the oscillator crosses below the lower threshold and then crosses back above it. Sell signals occur when the oscillator crosses above the upper threshold and then cross back below it.

Our group chose a 14-day period of analysis and we first used the common thresholds of 20 and 80, but found that such analyses yielded too many false signals. More extreme thresholds of 10 and 90 provided more meaningful secondary confirmation of our purchase decisions.

For General Electric, we can see that the Stochastic Oscillator dropped below 10 on 10/9/2014 (see chart below), and then crossed back above it on 10/14/2014. This crossover gave a buy signal that confirmed our decision to buy General Electric on 10/16/2014. We can see that Stochastic Oscillator then moved steadily upward in the coming weeks (gesture to chart). This shows General Electric's stock price began to close near its high for the 14-day period. The theory underlying the Stochastic Oscillator held true in this case as the price also moved steadily higher over the next month. Similar confirmations were provided for Tata Motors, Hershey's, and Tilly's (see chart below).

(PUT EXAMPLE STOCHASTIC OSCILLATOR CHARTS HERE)

IV. CRITIQUE OF OUR "GO BIG OR GO HOME" STRATEGY

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IT DID!!! When the DECA SMG competition ended on December 5, 2014, our net equity had grown to $114,351.70 from its original $100,000 base. Our GO BIG OR GO HOME strategy allowed Lucky Penny Investments to finish the Stock Market Game in the top 25 of the West Region with a net equity of $114,352 and a return of 14.35%. A summary of portfolio performance is presented below.

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Investing always involves risk, and we must attribute some of our success to luck. The following summarizes the strengths and weaknesses of our GO BIG OR GO HOME strategy compared with more typical investing strategies.

- **Leverage**
  - Strength: The chart above illustrates the improved performance due to leveraging. Here one can see all four stocks attained higher actual returns on cash ($100,000 base) versus their return of the amount invested ($150,000 base). Leveraging made the difference in us reaching the top 25.
  - Weakness: Leveraging works both ways! Losses as well as gains are amplified. When investing real money with a longer term perspective, leverage adds considerable risk and volatility to a portfolio.
- **Diversification Without Hedging**

- Strength: Lucky Penny met the diversification requirements of the DECA SMG rubric without including stocks that had a history of their prices moving in opposite directions. We avoided hedging the portfolio stocks with negative correlations.
- Weakness: Longer term portfolio management usually incorporates some hedging to avoid financial calamity when the overall market turns down. Spreading risk moderates returns but avoids extreme volatility in the value of the portfolio.

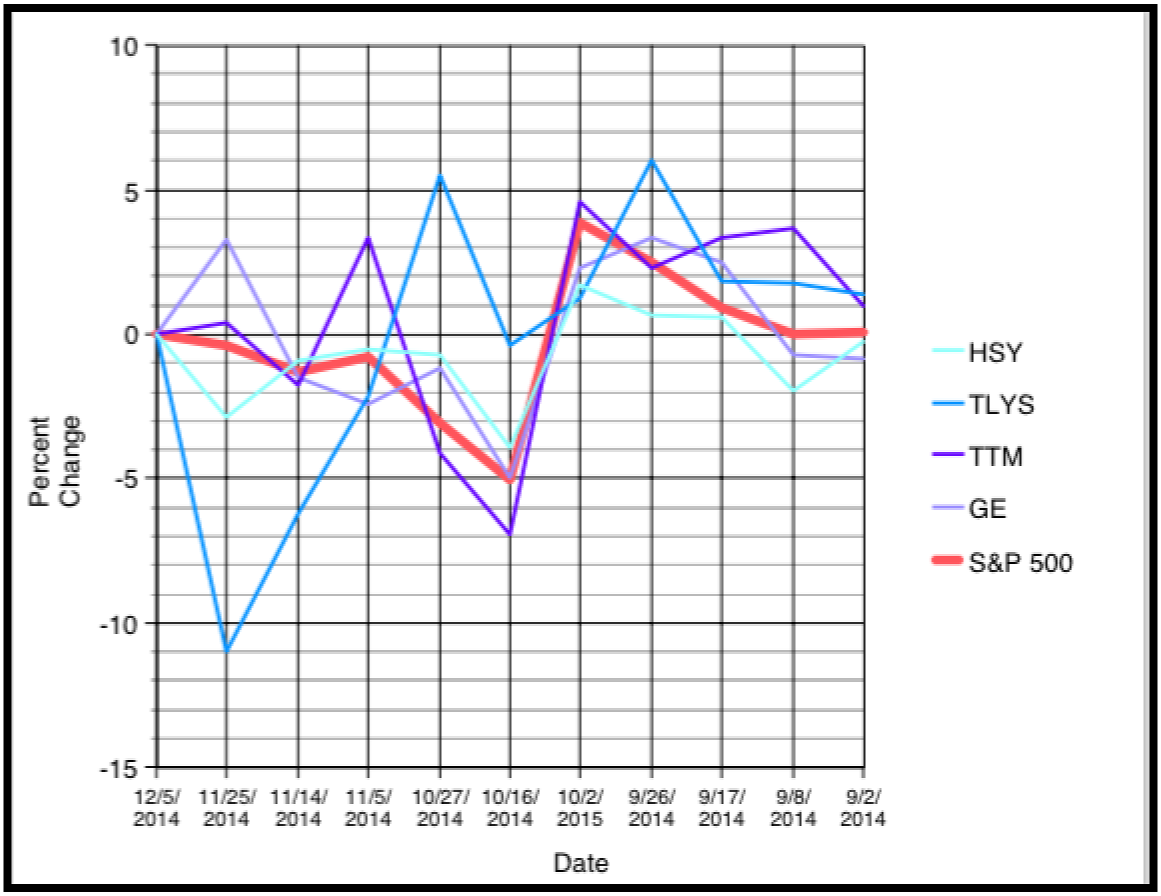
- **Buy & Hold**
  - Strength: Lucky Penny Investments avoided commissions that would have reduced our return on equity.
  - Weakness: Some of our stocks showed signs of being overbought as we proceeded through November (see Stochastic Oscillator & RSI charts presented earlier), and a couple did decline in the week before the game ended. Our insistence on buy and hold almost cost us our top 25 position. In the real world, transaction costs are so low that they are given little influence on buy and sell decisions.
- **Fundamental Analysis Focused On Earnings Growth**
  - Strength: Beating the market often means finding a trend that the market has not yet recognized. ____________________.
  - Weakness: Lucky Penny analysts were a little lucky ______________.
- **Relied On Technical Indicators For Timing Our Purchases**

- Strength: Technical analysis can provide good insights into the near term direction of stock prices, particularly when buy or sell signals are confirmed with multiple indicators. Our use of Bollinger Bands, Relative Strength Index and a Stochastic Oscillator proved helpful in picking cyclical bottoms for General Electric, Tilly's, Tata Motors and Hershey.
- Weakness: In Business Statistics, we studied how any single technical indicator can be wrong a substantial portion of time. Many indicators like RSI can also provide false buy and sell signals. Long term investing reduces the importance of timing the market

Our GO BIG OR GO HOME strategy met our competition goals but would not be a model strategy to employ in retirement planning. When shooting for the top 1.5%, a team must GO BIG or GO HOME!!! If Lucky Penny Investments were to compete in DECA SMG again, we would keep this strategy largely intact with two significant modifications. Our team would probably not buy large cap stocks. We would substitute smaller cap stocks with more price volatility. Also, we would reconsider our strict adherence to buy and hold when a stock is showing signs of being overbought.

V. CHARTS/DIAGRAMS OF PORTFOLIO PERFORMANCE*

Figures 1-4 are graphed from July 1st 2014 to December 5th 2014. The circle indicates the date the stock was purchased



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