BEAR DOWN BETA NEUTRAL:
THE CREATION OF A MARKET-NEUTRAL HEDGE FUND AND ITS PERFORMANCE IN THE
2014 CQA INVESTMENT CHALLENGE

By

ALEXANDER BRADLEY COHEN

A Thesis Submitted to The Honors College
In Partial Fulfillment of the Bachelors degree
With Honors in
Finance

THE UNIVERSITY OF ARIZONA
MAY 2014

Approved by:

Dr. Arvind Singh
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<thead>
<tr>
<th>Name (Last, First, Middle)</th>
<th>Cohen Alexander Bradley</th>
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<tbody>
<tr>
<td>Degree title (eg BA, BS, BSE, BSB, BFA):</td>
<td>BSBA</td>
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<td>Honors area (eg Molecular and Cellular Biology, English, Studio Art):</td>
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<td>May 5, 2014</td>
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<td>Bear Down Beta Neutral: The Creation of a Manager-Neutral Hedge Fund and Its Performance in the 2014 CFA Investment Challenge</td>
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<th>Roles</th>
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<tbody>
<tr>
<td>Alex Cohen</td>
<td>Alex was responsible for short security selection and factor modeling. Additionally, he wrote a significant portion of the deliverables and took the lead on document formatting. Finally, Alex was an additional set of eyes when creating models and calculating portfolio performance, working to ensure that all calculations and formulae were correct.</td>
</tr>
<tr>
<td>Joshua Dibiasi</td>
<td>Josh’s extensive model of the security universe and the team portfolio proved invaluable in the completion of this project. Additionally, Josh was responsible for factor modeling and risk management strategies. Specifically, Josh’s ideas helped make up the foundation for the team’s macro strategy and portfolio construction. Finally, Josh made extensive contributions in writing and formatting deliverables.</td>
</tr>
<tr>
<td>Karmi Gutman</td>
<td>Karmi’s experience trading in the stock market made him the natural choice for long and short security selection. Additionally, he made significant inputs to the written of all deliverables. While Karmi is not doing an Honors Thesis in conjunction with this project, this report would be remiss without recognizing his contributions, as the team surely would not have succeeded without him.</td>
</tr>
<tr>
<td>Laura Hobbs</td>
<td>Laura used her strong organizational skills in order to take the lead in project administration. For this role, Laura was the main point of contact between the team, university faculty, and the CQA mentor. Additionally, Laura was responsible for risk management and made extensive contributions to the writing of deliverables. Finally, Laura did much of the “brute force” research, helping the group to identify possible security selections.</td>
</tr>
<tr>
<td>Juan Peraza</td>
<td>Juan’s familiarity with markets and global events proved extremely useful as he took the lead on overall market analysis and macro strategies. Additionally, his experience trading made him a natural fit for security selection, and he was instrumental in the make-up of the long side of the portfolio. In addition to these responsibilities, Juan made significant contributions to the writing of all deliverables.</td>
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Arizona Wildcats
CQA Portfolio Team

Alex Cohen - Josh DiBiasi - Karmi Gutman - Laura Hobbs - Juan Peraza
Abstract
The objective of this competition, set up by the Chicago Quantitative Alliance (CQA), was to create and manage a $10,000,000 market neutral portfolio for a duration of five months. The Investment Challenge was an international competition among business schools with competition rankings determined by absolute and relative return, a management questionnaire, and a portfolio update. The ArizonaWildcats team placed third in the competition out of 26 schools (including Dartmouth, Rice, Duke, and the University of Chicago) with a portfolio selection strategy based on a top-down approach. The team determined an overall market outlook and chose sectors to long and short from there. Once sectors were selected, fundamentals that indicated under/over valuation were used to pick specific securities. At the conclusion of the competition, the team was able to achieve 0.49% absolute return, -0.29% risk adjusted return, and 6.25% abnormal returns (alpha). This resulted in a 7th place ranking in returns, and a 4th place ranking in alpha. On the morning of May 2nd, 2014, the CQA announced the winners of the Investment Challenge. As previously stated, when returns and written performance reports were factored together, the team placed 3rd overall in the competition.
I. Introduction

Over the past 6 months, a team of University of Arizona seniors in the Applied Portfolio Management class has created and managed a long-short and beta-neutral portfolio, called the ArizonaWildcats fund. The fund was entered in the CQA Investment Challenge where its performance was compared with the performance of funds from 26 other schools. This project afforded students a fantastic opportunity to gain valuable experience in portfolio management, including security selection, asset allocation, and risk management. A market neutral hedge fund (like the one created for this contest) is designed to eliminate market risk and gain only based on identified strategies, phenomena, and market inefficiencies. As a result, the fund should appreciate regardless of market performance. Due to the guidelines of this competition, the ArizonaWildcats fund was designed to benefit from continuing accommodative policy, industry momentum, and specific sector performances based on macroeconomic results while simultaneously minimizing exposure to extreme volatility in the market. Through analysis of macroeconomic data, industry performance, and a bottom-up valuation approach the team attempted to create a successful market neutral portfolio.

Over the duration of the contest, the ArizonaWildcats fund was in the top half of competing funds. A few key changes (which will be discussed in detail later in this report) allowed the portfolio to outperform the competition after the New Year, resulting in final risk-adjusted and absolute return rankings of 7th out of 26. Overall, the portfolio returned .49%, which amounts to an annualized return of just under 1%. While this was slightly less than the benchmark return, the team was satisfied with the results. Furthermore, by implementing many of the lessons learned over the course of the project, the team believes the strategy could be modified to improve the fund in the future.
II. About the Contest

The Chicago Quantitative Alliance states that the objective of the CQA Investment Challenge “to successfully manage an equity long/short market neutral portfolio over the course of the academic year…. The winning team [was] determined by the combination of absolute return, risk-adjusted return and an evaluation of a strategy presentation.”

The contest ran from October 31, 2013 to March 31, 2014. One team, composed of up to five junior, senior, or MBA students, was allowed per university and teams competed against other schools from around the world. Each team was allotted $10,000,000 in capital to create a $20,000,000 long-short portfolio. The primary condition for the contest was to maintain a market neutral portfolio, or a net portfolio beta of 0 +/- 0.5 on a bi-weekly basis. Teams were allowed to select equities found within the Russell 1000 index. Other specific guidelines for portfolio construction were outlined in the official rules and regulations, which can be in the appendix.

The contest utilized the StockTrak Global Portfolio Simulations platform (www.stocktrak.com) to manage the portfolio and funds. Through this service each team had access to portfolio statistics, competition rankings, beta values for companies, and trade execution services.

The winning team was chosen based on three main criteria, 40% risk adjusted return rank, 20% absolute return rank, and 40% written strategy evaluation. Cash prizes were awarded to the top three teams while the resumes of the top team members were distributed to all CQA members. At the time of the completion of this paper, the team is still awaiting final results from the CQA headquarters.

Each team was required to have a CQA member to act as a mentor for the team and to be a liaison between CQA and the team. This mentor was in addition to University faculty mentors that aided the team as well. The ArizonaWildcats team’s CQA mentor was Chris Campisano, CFA. Mr. Campisano is the lead strategist for custom solutions within Blackrock’s Multi-Asset Client Solutions group and a founding member of CQA. He has had a long history of fund solution experience and proved to be an invaluable resource over the course of the contest. We extend a special thank you to him for weekly meetings, countless emails, and continued support of this program and Eller.
III. Team Role Breakdown

Members of the investment team took on a variety of roles in order to effectively manage the portfolio as well as mitigate risk. By dividing responsibilities among team members, the fund was more protected from errors or biases of a single team member. Individual roles with the investment team were classified in the following graphic:

As previously stated, roles were separated in order to mitigate bias. As the table below indicates, at least two team members were allocated to all tasks that had to do with investment decisions. Investing based on emotion is a common mistake that can have disastrous consequences for a portfolio. By assigning factor analysis, security selection, and risk management to multiple individuals, the team created a system of checks and balances that limited the likelihood of this error.

<table>
<thead>
<tr>
<th>Team Member</th>
<th>Administration</th>
<th>Risk Management</th>
<th>Long Security Selection</th>
<th>Short Security Selection</th>
<th>Excel Modeling</th>
<th>Factor Analysis</th>
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<tbody>
<tr>
<td>Alex Cohen</td>
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<td>Josh Dibiasi</td>
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IV. Overall Strategy

The goal of a market neutral portfolio is to eliminate market risk. As a result, it was important to find a risk-free benchmark. The 10-year treasury rate is widely considered to be the risk-free rate in the market. As a result, team chose to compare the portfolio returns to the 10-year treasury rate at the inception of the portfolio. By comparing the portfolio returns to this rate, the team was able to determine if the ArizonaWildcats market neutral investment was more or less attractive than alternatives already in the market.

Overall, the team’s investment philosophy was based on macroeconomic expectations for the next 1-2 years. The fund was initially designed to benefit from positive overall growth in the economy and continuing low interest rates. In January, the team revised short/intermediate term expectations and took a more defensive position in the market. This change enabled the fund to weather the economic correction in January, which was seen in the ArizonaWildcats strong performance when compared to competing funds.

The team devised a three-stage security selection process. First, sectors that were expected to see positive growth and benefit from low interest rates were chosen for the long portfolio, while the inverse were chosen for the short portfolio. Second, industries were selected based on an attempt to capture the market anomaly momentum. Momentum is the tendency of strong performers to continue outperforming the market and vice versa (For example, a stock that has outperformed the market over a 6-month period will likely continue to outperform for the next month). When narrowing down industries based on momentum for the long portfolio, the team generally skipped the top 1-2 performing industries (or bottom performing for the short portfolio) because of the well-documented belief that the top performer will never maintain its ranking over a 1-year period. As an example to explain this idea, in 2012 the financial sector had the highest return, followed by consumer discretionary and healthcare. In 2013, consumer discretionary and healthcare took over the top two spots while the financial sector fell to #5. The third and final stage of security selection involved a bottom-up approach of choosing undervalued securities for the long portfolio and overvalued securities for the short portfolio. These were based on a fundamental analysis that utilized a model which screened equities based on key multiples and ratios including P/E, P/B, EV/EBITDA, and debt ratio. Chosen securities were expected to display a reversion to the mean of their respective industry.

Given the strategy described above, the investment team was able to incorporate overall macroeconomic beliefs without being biased by individual security selection. Using three stages to filter companies that fit into the team’s overall belief system ensured that the team was not purely speculating on the outcome of individual stocks.

With this strategy in mind, the sector selection team of the ArizonaWildcats fund chose to go long on healthcare, consumer discretionary, technology, and financials. The short side of the portfolio consisted of materials, utilities, energy, and consumer staples. Again, these choices were based on going long with companies that would thrive with strong economic growth and low interest rates, and the inverse for our shorts. Towards the beginning of the year (2014), fear spread widely with Emerging Markets, the
possibility of increases in the Federal Funds Rate earlier than expected, and strong selloffs in U.S. equity benchmarks, which led to a belief that this strategy was no longer valid. For this reason, the team decided to short the companies that were expected to be hit the hardest in a correction and a rising interest rate environment. Meanwhile, the team decreased holdings in the long portfolio that were expected to be negatively affected by these fears, which resulted in a decision to decrease financials (big banks in particular) and technology. To replace the holdings in the long portfolio that were reduced, the investment team decided to favor high dividend yield sectors like Utilities, Energy, and Consumer Staples as these sectors were expected to continue positive growth during a decline in the overall market.

It is important to note that the goal was not to merely choose the sectors that the team believed would be the biggest winners for the long side and the biggest losers for the short side. Rather, sectors were envisioned to be pitted against one another as to reduce or eliminate the effects of large swings in the economy.

The portfolio was to be rebalanced on a monthly and ad hoc basis. The goal of monthly rebalancing was to return the portfolio to its beta goal. This was because as assets made gains or losses, their asset value would affect the portfolio’s overall beta. This rebalancing was necessary for the portfolio to stay within the regulations of the competition. During the first stage of rebalancing, no companies were added or removed from the portfolio, instead asset value was redistributed amongst current holdings to achieve the beta goal. Companies that had grown beyond the initial investment maximum of 5% (and still appeared to have positive growth potential) were removed from this rebalancing process. In the second stage of rebalancing, the team identified securities on both sides of the portfolio that no longer appeared to be promising investments and replaced them. A third stage involved cleaning up and final rebalancing that may be needed due to new investments. These three stages were completed in the Excel model prior to issuing orders to the StockTrak broker system. Ad hoc rebalancing was a necessity, as dictated by the January 2014 rebalancing described above.

To aid the overall strategy the investment team created several additional smaller rules. The following sections deal with said rules.

Within the first month of the competition, the team saw the need to set some sort of stop loss rule as a multiple securities suffered severe losses. If a given security lost (or gained on the short side) over 20% in such a short time span, the team would sell of the position regardless of expectations that the security would improve. This rule became resulted in sales in at least two different instances over the course of the competition.

Additionally, the investment team decided that it would be irresponsible of the team to not take advantage of certain speculative opportunities as they arose. 5% of the portfolio was allocated to speculative selections that did not perfectly align with the investment philosophy, but were judged to be extremely beneficial to the overall portfolio on either the long or short side.

Cash was always maintained at 1-2% of the portfolio’s value in case an investment idea arose suddenly. This cash was also kept on hand in the event that the team decided they needed to exit a short position
immediately. As a note, the rules of the competition stated that the portfolio was allowed to be fully invested.

All securities selected had to be either large or mid cap in size. The team chose to limit our exposure to idiosyncratic risk associated with smaller firms that may assume larger losses or gains due to macroeconomic factors. Even though the Arizona Wildcats were only able to select securities from the universe of the Russell 1000, this rule still played a role. A small cap security was defined as any firm with less than $2 billion in market cap, which can be found in the Russell 1000.

Partway through the first month, the investment team noticed that the largest losses were being caused by investments in the short portfolio that had betas greater than 1. Due to the overall outlook of positive economic growth, the team aimed to lower the portfolio’s overall exposure to individual securities with a beta greater than 1 due to the fact that the total portfolio would be negatively affected by large positive growth in shorted securities.
V. Final Results

The competition ended on March 31st, as stated above. At this point in time the fund had gained a 0.49% absolute return, placing it 7th in the competition rankings. Absolute returns in the competition ranged from -12% to 9.78% with a mean absolute return of -2.50%. With this information in mind, the team is satisfied with our positive return and have faith that future ArizonaWildcats teams can raise the bar even higher. Absolute rankings as of the end of the competition can be found in the figure below. Note that the 7th, 8th, and 9th place portfolios for the absolute return consist of two cash portfolios used as benchmarks as well as the reset portfolio for the team from the University of Illinois Urbana-Champaign (who was eliminated from the competition after repeated violations of contest guidelines).

The team is most excited about the abnormal return, also known as alpha, of 6.25% generated over the course of the competition. This return, which can be used to indicate value added by the portfolio management team, placed the portfolio 4th in the competition. Some return is attributable to the risk taken by a portfolio. This risk can be calculated using the CAPM model, where $E(R) = R_{\text{risk-free}} + \beta \cdot RP$. Excess or shortages in return are measured as alpha. The portfolio’s negative beta combined with the market’s positive performance, resulted in a negative expected return. The fact that the team was able to gain positive returns despite this indicates strong management skill and accounts for the positive alpha. Alpha rankings can be seen in the figure on the next page.
Lastly, the Sharpe ratio was -0.26. Sharpe ratio is a measure of risk adjusted return, and is calculated using the following equation:

$$Sharpe = \frac{R_{portfolio} - R_{Risk-free}}{\sigma_p}$$

Because the ArizonaWildcats fund return was slightly less than the risk-free rate, the numerator was negative, resulting in a negative Sharpe ratio. Overall, the team placed 7th out of 26 in risk-adjusted rankings.
When the absolute and risk adjusted returns were combined with the scores for the manager questionnaire (submitted December 1st, 2013) and the performance update conference call (submitted February 28th, 2014), the team ended the competition in 3rd place overall. As a result, the team split the $500 third-place prize.

The full team rankings, sent out by CQA Investment Challenge Committee member John Wightkin, were as follows*:

<table>
<thead>
<tr>
<th>Rank</th>
<th>University</th>
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<tbody>
<tr>
<td>1</td>
<td>University of Southern California</td>
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<td>2</td>
<td>Vanderbilt University</td>
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<td>3</td>
<td>University of Arizona</td>
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<td>4</td>
<td>University of Washington</td>
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<td>5</td>
<td>Dartmouth College</td>
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<td>6</td>
<td>University of Chicago</td>
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<td>7</td>
<td>Union</td>
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<td>8</td>
<td>Duke University</td>
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<td>9</td>
<td>University of Denver</td>
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<td>10</td>
<td>Whitman - Syracuse</td>
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<td>11</td>
<td>UCLA - Anderson School</td>
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<td>Texas A&amp;M University</td>
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<td>Wesleyan</td>
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<td>20</td>
<td>University of Michigan - Ross School</td>
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<td>21</td>
<td>Carnegie Mellon</td>
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<td>22</td>
<td>The Chinese University of Hong Kong</td>
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<td>23</td>
<td>Temple University</td>
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<td>24</td>
<td>Macalester College</td>
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*Please note that 2 of the teams listed in the StockTrak platform are not listed and may have been disqualified from the competition for rules violations or failure to submit reports.
VI. Future Suggestions

While the team is satisfied with our overall performance, a few main areas for improvement have been identified. These factors could be changed or improved by future teams:

- **Risk Management/Analysis Strategy:** Establish a set of risk management rules before the start of the competition and follow them throughout the entire competition. The CQA provides multiple resources to track your portfolio including Barra risk management software. By accessing this software early and becoming acquainted with it prior to selecting the portfolio, the team could have had a better idea of the risk exposure of the fund. In addition to using available resources, it would have also been helpful to reach out to our mentor and/or other professionals (i.e. speakers that come to class) about risk management strategies actively used in hedge funds. By enacting these procedures, the team could have better understood the risks and expected performance of the portfolio.

- **Find Strategy to Limit Short Position Losses:** The main reason that the portfolio did not outperform the benchmark was high losses on a small number of short positions. This mostly occurred under positive macroeconomic conditions during the first half of the competition. Therefore, the team suggests finding a strategy to limit short position losses. One such strategy is pairing, which involves finding similar companies with one or two key differences (e.g. McDonalds and Burger King). By going long one and short the other a fund can protect itself from unexpected gains or losses in an industry.

- **Utilize All Resources Provided:** The team experienced a very steep learning curve with this project. Basically, we were one step ahead of the girl who asked “what does going short mean?” at the project kick-off conference call. As a result, it was vital that the team took advantage of as many resources as possible. In the future, the team recommends that future ArizonaWildcats teams utilize all available software, and meet regularly with mentors, sponsors, and PhD students helping with the competition.

In addition to the above areas of improvement, the team also noted several factors that were instrumental to the success of the project. The team strongly recommends that future ArizonaWildcats CQA teams undertake the following actions.

- **Establish Consistent Meeting Time:** With the extensive outside commitments of team members, it was vital to establish a consistent time and place to meet. This ensured that the portfolio was reviewed and updated on a regular basis. The team chose to meet at the Bloomberg terminals because they were used extensively for security research. Furthermore, the team also established a regular meeting time with the project mentor. Mr. Campisano was generous enough to donate his time to this project, and the team felt that it was important to not waste his time with repeated scheduling discussions. As a result, bi-weekly meetings held on Friday afternoons allowed the team to update Mr. Campisano on the fund’s performance, ask him about portfolio construction, and discuss drafts of upcoming deliverables.

- **Establish a Proprietary Excel Spread Sheet:** The team’s Excel spreadsheet was vital to the ability to complete the project. Before the competition even began, the team established a spreadsheet with the fundamentals of every security in competition’s investment universe.
This proprietary excel spreadsheet that enabled the team to track the portfolio holdings, returns, and risks. Furthermore, it provided an easy method to screen securities, support reasoning behind trades, and perform other analyses. The spreadsheet also contained information about why stocks were selected, current portfolio holdings (including a beta calculator), and a list of stocks to trade in an emergency if something happened to one of the current holdings (such as a drastic change in a stock during Winter break when access to the Bloomberg terminals was limited).

- **Follow the Strategy Consistently**: Do not make discretionary trades that go against the set strategy. These types of decisions cause people to make emotional trades and alter the accuracy of the strategy. That said, teams must still be willing to change the strategy if need be. Macroeconomic factors can change throughout the competition, invalidating the chosen strategy. Additionally, further research may indicate that an idea or structure is not ideal for the fund (for example high sensitivity to certain risk factors). In this scenario, the team must keep an open mind about possible changes to the fund.
### VII. Appendices

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<th>Appendix</th>
<th>Description</th>
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<td>Appendix 1</td>
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<td>Performance Update Submitted to CQA February 28, 2014</td>
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<td>Appendix 3</td>
<td>Manager Questionnaire Submitted December 1, 2013</td>
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<td>Appendix 4</td>
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The CQA 2nd Annual Investment Challenge

October 31, 2013 – March 31, 2014

Official Rules & Regulations

Goal: Successfully manage an equity long/short market neutral portfolio over the course of the academic year. Although stock picking is important for success in this contest, we will emphasis risk-adjusted returns and portfolio management skills.

1. The contest runs from October 31, 2013 – March 31, 2014
2. One team per university is allowed. A team can consist of undergraduate and/or graduate students. Up to 5 members per team are recommended.
3. Each team requires a sponsor from the school (typically a professor) to compete in the contest. This sponsor will be responsible for selecting and guiding the team.
4. To compete, each team will require a CQA member to serve as a mentor. CQA will assign the mentor to each team. The CQA mentor will provide guidance to the team in managing the portfolio, explain competition rules, answer any questions that arise during the competition, monitor the team’s compliance with the rules and serve as a liaison between CQA and each team. They are not responsible for managing the team or portfolio. These duties are the team’s responsibilities.
5. Every team will utilize the Stock Trak Global Portfolio Simulations platform (www.StockTrak.com) to invest and manage their capital, monitor their portfolio value, cash and risk level (We will use the beta value provided by Stock Trak), check their absolute and risk adjusted returns and compare their performance against other schools. All the metrics are defined on the Stock Trak web site. If any team has a problem and question about Stock Trak, they can contact Greg Brown at Stock Trak by emailing him at gbrown@stocktrak.com. He is our dedicated contact person at Stock Trak for this contest.
6. To register for the contest on Stock Trak, CQA will supply a pass code and link that each team will use to access the contest on Stock Trak’s web site and register their team. Please use the school name (or a portion of it) in the team name to uniquely identify your school. The registration window will be open from October 7- November 1. Trading will begin on October 31.
7. The trading rules used on the Stock Trak platform can be found on the Stock Trak web site. Please review these rules before commencing trading. There are also instructions on the Stock Trak web site regarding the utilization of their simulation software.
8. The winning team will be the one that achieves the highest weighted average score derived from the combination of absolute return, risk adjusted return and an evaluation of a written strategy presentation. All competitors will be relatively ranked on each of the measures. A weighted average of the three scores will determine the overall score.
The three metrics will receive the following weights: 40% risk adjusted return rank (the Sharpe ratio as defined by Stock Trak), 20% absolute return rank (as defined and calculated by Stock Trak on their platform) and 40% written strategy evaluation of which 20% will be for the Request for Proposal document and the other 20% for the client performance review. For the paper scores, a panel of CQA members will rank the papers. A simple average of ranks from the panel members will determine each team’s written strategy evaluation rank. Guidelines for the written papers will be delivered via email to each team by the CQA mentor in the coming weeks. The RFP will be due December 1, 2013 and the client report will be due February 28, 2014.

In case of ties, CQA will use the rank of the risk adjusted return as the first tie breaker, the absolute return as the second tie breaker and the paper rank as the third, if necessary.

9. Prizes will include $3,000 in prize money distributed across the top three teams ($1,500, $1,000, and $500). The winning team professor will be invited to attend the annual CQA Fall conference in Chicago (September) or Las Vegas (April) with plane and hotel costs covered by CQA. Finally, the resumes of the winning team members will be circulated to all CQA members.

For All Prizes: Prizes are non-transferable and no substitution will be made except as provided herein at CQA’s sole discretion. CQA reserves the right to substitute a prize for one of equal or greater value if the designated prize should become unavailable for any reason. Winners are responsible for all taxes and fees associated with prize receipt and/or use.

10. The portfolio parameters are as follows:

- Manage an equity long/short market neutral portfolio. Teams can decided the number of stocks they wish to hold on each side without violating the constraints defined below.
- Invest $10,000,000 in capital. This means each team will manage a $20,000,000 long-short portfolio.
- Universe – the CQA mentor will provide their respective teams the universe of stocks they can use to form and manage their portfolio. This list will be delivered to each team prior to the start of the competition. The universe will consist of approximately 1000 investable large and mid cap stocks.
- Maximum position size at the time of the trade on both long and short side is 5% of the unlevered portfolio value. For example upon commencement of the game, the maximum position size is $500,000 (5% of $10,000,000) to initiate a long and a short position. An existing position can exceed the 5% maximize position size.
- Market Neutral – maintain a net portfolio beta of 0 +/- 0.5 on a bi-weekly basis. CQA will provide the betas for all the stocks in the universe file it delivers to the teams prior to launch.
- May not lever more than 2:1. This means teams cannot borrow.
- The portfolios will be dollar neutral with a variance of +/- 2% in net market value.
- Portfolio will hold less than 5% of the unlevered portfolio value in cash
• Teams may use any strategy they wish to pick their stocks.
• Portfolios need to be fully invested by 4 pm EST on Wednesday, November 6 or risk expulsion from the contest.

11. Any team that exceeds the constraints defined in #10 will receive a warning from CQA and have two weeks to become compliant. A second infraction of the constraints by any team will result in a reduction of their risk-adjusted rank (as defined in #8) by 5 or a last place risk-adjusted rank, whichever is worse. A third infraction of the constraints by any team will result in the team’s elimination from winning any prize money.

12. **Release:** By receipt of any prize, winners agree to release and hold harmless CQA and each such company’s officers, directors, employees and agents (collectively, the “Released Parties”) from and against any claim or cause of action, including, but not limited to, personal injury, death, or damage to or loss of property, arising out of participation in the Challenge or receipt or use or misuse of any prize.

13. **Publicity:** Except where prohibited, participation in the Challenge constitutes each participant’s consent to CQA’s use of the name, likeness, photograph, voice and/or opinions for promotional purposes in any media, worldwide, without further payment or consideration.

14. **General Conditions:** CQA reserves the right to cancel, suspend and/or modify the Challenge, or any part of it, if any fraud, technical failures or any other factor beyond CQA’s reasonable control impairs the integrity or proper functioning of the Contest, as determined by CQA in its sole discretion. CQA reserves the right, in its sole discretion, to disqualify any individual it finds to be tampering with the entry process or the operation of the Challenge or to be acting in violation of the Official Rules of this or any other promotion or in an unsportsmanlike or disruptive manner. Any attempt by any person to deliberately undermine the legitimate operation of the Challenge may be a violation of criminal and civil law, and, should such an attempt be made, CQA reserves the right to seek damages from any such person to the fullest extent permitted by law. CQA’s failure to enforce any term of these Official Rules shall not constitute a waiver of that provision.

15. **Limitations of Liability:** The Released Parties are not responsible for: (1) any incorrect or inaccurate information, whether caused by entrants, printing errors or by any of the equipment or programming associated with or utilized in the Challenge; (2) technical failures of any kind, including, but not limited to malfunctions, interruptions, or disconnections in phone lines or network hardware or software; (3) unauthorized human intervention in any part of the entry process or the Challenge; (4) technical or human error which may occur in the administration of the Challenge or the processing of trades or other activities within the application; (5) late, lost, undeliverable, damaged or stolen mail; or (6) any injury or damage to persons or property which may be caused, directly or indirectly, in whole or in part, from entrant’s participation in the Challenge or receipt or use or misuse of any prize. If for any reason an entrant's portfolio is confirmed to have been erroneously deleted, lost, or otherwise destroyed or corrupted, entrant’s sole remedy is another opportunity to create an account in the Challenge, if possible. If the Challenge, or any part of it, is discontinued for any reason, CQA, in its sole discretion, may elect to determine the winners based on the status of the entrants'
portfolios as of the date of discontinuance for any or all of the prizes offered herein. No more than the stated number of prizes will be awarded.

16. **Disputes and Errors**: If you or your team believes an error has been made in your portfolio, you may call STOCK-TRAK @ 1-866-SMS-DESK, toll-free, to discuss the problem. Please review your statements and report any problems right away.

- CQA and STOCK-TRAK are not responsible for transactions or quote prices that are incomplete, incorrect, or not received.
- CQA and STOCK-TRAK may use various methods (such as time and tape analysis) to resolve disputes. The decision made by CQA and/or STOCK-TRAK is final.
- CQA and/or STOCK-TRAK has the right to adjust or delete transactions that are believed to be incorrect, and the right to terminate any account that they believe may have attempted to exploit, manipulate, or sabotage any part of the SMS system and/or web page.
- CQA and/or the management of STOCKTRAK have the ultimate authority to settle disputes.
- CQA and STOCK-TRAK’s liability is limited to the fee paid for the service.
Arizona Wildcats
CQA Client Report
Conference Call
(1/31/2014)

Alex Cohen
Joshua Dibiasi
Karmi Gutman
Laura Hobbs
Juan Peraza
Introduction
Welcome to our fiscal fourth quarter client report. I have with us today Alex Cohen our Chief Financial Officer, Laura Hobbs our Chief administrator, and Joshua Dibiasi our Chief Executive Officer. They will be aiding me in discussing our portfolio results so far, as well as, to answer any questions that you may have. We have a few charts to better summarize our previous quarter (Nov. 1, 2013-Jan. 31, 2014).

Disclaimers
Before we begin discussing our current results, we would like to caution you that we will be making forward looking results based off our current knowledge and some future assumptions. We would also like to remind you that there are certain factors that could hinder our portfolio estimates and returns given during this conference call. Such factors include economic downturns, fluctuating currencies, negative analyst reports, industry consolidation and evolution. Finally, some of the information given in our report today may contain unaudited allocations and may be subject to reclassification.

Portfolio Parameters
Firstly, we would like to review the parameters that govern this fund. The ArizonaWildcats Fund is a net market neutral portfolio with a value of about $10,000,000. Three Main parameters govern the portfolio.

1. Portfolio Beta— The portfolio beta must be between .5 and -.5. Beta is a measure of risk, so minimizing beta is one way to ensure minimized market risk exposure.

2. Long/Short Neutrality— In order to balance the market risk, the portfolio must allocate an equal (within 5% margin of error) amount of money into long (buy asset and make gains based on price appreciation) and short (borrow and sell underlying asset and make gains on price depreciation) portfolios. This way, each side should cancel market moves and allow the fund to make money based on targeted factors.

3. Cash Balances— Cash must stay below 5% (about $500,000) of total portfolio value. Holding cash can minimize risk and provide an investor with the capital to quickly act on new opportunities. However, holding too much cash often results in lower returns for shareholders. Finding an optimum balance is key for achieving optimal results.

Parameter Performance
As you can see from the graph below, we have continually stayed within our long/short mandates. After the first month of security selection and risk balancing, the long and short portfolios remained very close in value for the duration of the quarter.
The cash balance was below the required maximum parameter for nearly the entire quarter. The only exception came in mid-January during a period of particularly high turnover in the portfolio (this period will be discussed in further detail below). As you can see, we immediately made the necessary changes to reduce cash, and the portfolio was quickly adjusted to conform to our mandates. Cash information can be seen in the graph below.

Results
We are disappointed to announce that we made a negative return to our shareholders of -1.55%. Two main factors contributed to this return:

1. **Stronger than expected returns from defensive sectors.** As you saw in the RFP report, the ArizonaWildcats Fund is created using both a top down and bottom up approach. With an improving economy and strong economic indicators, the investment team held a positive outlook when deciding on sector allocation. Over the first 2 months of the quarter, cyclical stocks (financials, consumer discretionary) went up, causing gains on the long section of the portfolio. However, defensive sectors (consumer staples, healthcare) performed stronger than expected causing unexpected losses on the short side. The team re-evaluated this view in January and began to see more positive results.

2. **Market correction in January.** Starting January 1st, markets began a correction attributable to a selloff in emerging markets. This caused investors to become more risk averse and take their capital out of equity markets, investing it in risk free 10 Yr. US treasury bonds instead. With our positive outlook, the fund operated at a beta of 0.2. Therefore, as the markets fell, some of this correction was felt in the portfolio. However, this impact was much less than the impact felt in long-only portfolios.

The following graph shows our fund returns compared to the relevant benchmark for the quarter.
Winners and Losers
In a market neutral portfolio, to be considered a winner, a stock must beat the market. Over the course of the quarter, the S&P 500 returned about 2.67%. With this in mind, our biggest winners consisted of Mylan with a return of 19.91%, Macy’s with a return of 15.8% and Xerox at 9.51%. Our biggest losers were shorts on Brookdale Senior Living, Vulcan Materials, and US Steel. In regards to our standing amongst rival funds, we are in top half of funds on an absolute return basis. After weathering the recent correction better than many other funds, we believe that the ArizonaWildcats fund is in very good position to continue gaining ground, and will continue to prove itself as an attractive option for investors.

Portfolio Changes
For much of the quarter ending January 31st, we were long Financials, Consumer Discretionary, and Information Technology, while going short on Consumer Staples and Materials to take advantage of bullish indicators. As a result of uncertainty in emerging markets, investors began to question the validity of the United States projected GDP growth causing volatility in the markets. In addition, a declining Purchasing Manager Index to a value of 51.3 and a declining participation rate leading to unemployment rate decrease has also caused investor to exit the equity market. Once these notions became clear, we deemed the following adjustments necessary in order to improve our performance.

- **Lower portfolio beta.** The CAPM model argues that return is linearly related to risk, which can be quantified using beta. A positive beta correlates with the market while a negative beta moves opposite to the market. Based on our analysis, we have decided to become more bearish and decrease the portfolio beta. Over the last half of January, changes were made to decrease the beta of the portfolio from +0.2 to -0.2. The graph on the following page shows the change made in beta to coincide with our immediate term outlook.
• **Sector shifts.** With the market currently in a more rocky stretch, defensive sectors will continue to perform well. In order to take advantage of the new outlook, many long positions from the technology, financial, and materials industries were sold or even shorted. These moves included shorts on Goldman Sachs, Citi, J.P. Morgan, Google, Facebook, and Newmont Mining. Meanwhile, the fund took new long positions in more defensive stocks like Clorox and Procter & Gamble. This sector shift will allow the fund to earn positive returns in the face of uncertain market performance.

**Future Outlook**

In the short/immediate term, we expect a reversal in US equities as a result of the strength of the market over the last five years. Our research indicates that US equities are overvalued by every metric and that the environment is set for a pullback of around 7%. For this reason, we expect to see a correction in the market over the next few months and thus will continue to run the portfolio with a negative beta. The graph below shows the change made in beta to coincide with our immediate term outlook. We continue to overweight consumer staples and healthcare as we believe the sector is undervalued compared to the rest of the market. Also, we will keep our underweight in financials, consumer discretionary, and information technology as we expect these sectors to be the ones hurt the most when fear returns to the markets.

Our view on the US for the medium/long-term is that the economy is getting stronger and we expect positive news in the next 18 months to 24 months. Even though we expect the economy to continually improve, we believe that the risks in Emerging Markets, specifically in China with the “shadow banking” issues, pose a significant threat for equity markets around the globe. We will continue to monitor the economic landscape and the portfolio to make any adjustments that we deem necessary. Please rest assured that we won't hesitate to communicate with you if our views and holdings change substantially.

**Summary**

To summarize, our recent negative return was due to a slight correction in the market due to emerging markets concerns as well as the concerns on the validity of the improved US GDP growth potential. As a result of this negative return we have taken appropriate actions in order to correctly position ourselves for the rest of the year. These changes include taking more long positions in consumer staples and healthcare and removing securities that performed contradictory to our forecasts. We continue to remain focused on efficiently managing our portfolio in order to maximize our shareholders returns. At this time we are available to answer any questions that you may have.
Directions

When completing the questionnaire, be sure to:

1. Adhere to style formats. The responses must be submitted in Microsoft Word or Adobe PDF compatible format single-spaced with 1” page margins with 11pt font.

2. Question and answer format:

   1. Questions will be listed in blue boxes
   Please provide answers in the boxes directly beneath questions.

3. Should a question not apply to your strategy, please populate the appropriate field with “N/A.”

4. Answers will be judged on the quality and thoughtfulness of the response, not by the length.

5. Please email your completed questionnaire and any questions regarding the questionnaire to Trish Halper at phalper@chicagoequity.com

6. The deadline for returning the completed questionnaire is December 1, 2013.
CQA Investment Challenge Manager Questionnaire

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Part A – Organizational/People

A. Investment Team

1. With respect to this product, discuss the specific roles within the investment team. Who is responsible for research, security selection, portfolio construction, etc?

Members of the investment team have undertaken a variety of roles in order to effectively manage the portfolio as well as mitigate risk. By dividing responsibilities among team members, the fund is more protected from errors or biases of a single team member. Individual roles with the investment team are classified in the following table.

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<th>Team Member</th>
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<th>Long Security Selection</th>
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<tr>
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Part B – Investment Philosophy

B1. Investment Philosophy

1. Describe your investment philosophy. Why do you believe that it will be successful going forward?

Overall, our investment philosophy is based on our macroeconomic expectations for the next 1-2 year time period. Our fund is designed to benefit from positive overall growth in the economy and continuing low interest rates.

Our security selection is divided into three stages with these core ideas in mind. First, sectors that we believe will see positive growth and will benefit from low interest rates were chosen for our long portfolio, while the inverse were chosen for our short portfolio. Second, industries were chosen based on our attempt to capture the market anomaly momentum, which we describe in further detail in question B2. When choosing industries based on momentum for our long portfolio, we generally skipped the top 1-2 performing industries (or bottom performing for our short portfolio) because of our belief that the top performer will never maintain their ranking over a 1-year period. As an example to explain this belief, in 2012 the financials sector had the highest return, followed by consumer discretionary. Year-to-date 2013, consumer discretionary has taken the throne at number one, while financials has fallen to fourth place in terms of return. Our third stage involves a bottom-up approach of choosing securities for our long portfolio that are undervalued (or overvalued for our short portfolio) based on our fundamental analysis, which we discuss further in question C1. Chosen securities are expected to display a reversion to the mean of their respective industry.

We believe that the combination of these stages to our philosophy eliminates personal bias in choosing securities. Lastly, we have weighted our long portfolio to have a slightly larger beta than our short portfolio due to our belief that there will be positive macroeconomic events in the future. This will enable our portfolio to have a greater benefit from positive movements in the economy.

2. What inefficiency or market anomaly are you trying to capture?

The short-term performance of stocks, industries, and sectors has been proven to positively correlate with the most recent historical returns of the same security*. For example, a stock that has outperformed the market over a 6-month period will likely continue to outperform for the next month. This phenomenon, known as momentum, is a well-documented market anomaly. As previously mentioned, the team has selected a portfolio that will capture momentum at the industry level.

B2. Research Process

1. Describe the sources of information and data you use and how you use them? Be sure to illustrate how this information relates to your philosophy, the risks and quality of this information, and how this might change over time.

In order to develop a macro view, the team gathers information from a variety of sources including Bloomberg News, The Wall Street Journal, leading indicator reports (such as jobless claims), and interviews with academic and industry experts. The goal is to examine a variety of facts and opinions in order to filter out individual errors, therefore eliminating risk. Using this information allows the investment team to determine sector allocations.

Historical performance, fundamentals, and 10-K information are gathered from Bloomberg. Performance is analyzed in order to identify industries with strong momentum. From this point, a model screens equities based on key multiples and ratios. These vary by sector, but include P/E, P/B, EV/EBITDA, and debt ratio. After stocks are identified as possible investment opportunities, company news is gathered from Bloomberg News, Yahoo Finance, and company filings. This information leads to final security selection decisions. Finally, an Excel solver function optimally weights the securities. Betas are gathered from Bloomberg and compared with Stocktrak values in order to ensure continuity between internal data and evaluation benchmarks.

Part C – Investment Process

C1. Process for Evaluation of Securities and Markets

1. Describe your process for valuing securities or forecasting asset prices, including the time horizon for investment return.

We have constructed an Excel document that continually updates data on our security universe that is divided into sectors and their respective industries. Within each industry securities are listed with their respective returns, multiples, and other fundamentals that we deemed useful for our analysis.

Our process for valuing securities involves two major steps. First we narrow down securities within an industry based on our fundamental analysis. In essence, we chose three to five major multiples based on the particular industry to determine if a security was undervalued compared to the rest of their industry. Once we found a reasonable number of companies within an industry that meet this criteria, we then conducted independent research. This research included analysis of historical returns and reading news articles relating to the company to determine major events that have happened or that can be expected in the near future to have a better understanding of the company’s culture and future.

Finally, no securities in our short portfolio may have a beta greater than one. This is due to our expectation for positive overall growth in the economy. We believe that we can mitigate risk and exposure to positive market swings by having securities with a beta less than or equal to one.
CQA Investment Challenge Manager Questionnaire

C2. Portfolio Construction

1. What is the expected annualized absolute return and volatility for this strategy?

We calculated our expected annualized return based on the risk or standard deviation of our portfolio on December 1st, 2013, which was .2371. We backed into our expected return by using the information ratio formula:

\[ IR = \text{“Portfolio Return”/ “Portfolio Risk”} \]

We first calculated what we believed to be our information ratio:

Information Ratio = “Information Coefficient”/”Square Root of Breadth”

We chose an information coefficient of .03. Barra research suggests, “a ‘good’ IC as 0.05 and a ‘very good’ IC as 0.10”*. We chose .03 because we believe this is both a good IC and realistic based on our entry-level experience and current positive market conditions. Next, we used a breadth of 200 due to our expectation that over the period of one year we expect to forecast 200 securities in depth. This is due to our screening process in which we narrow down our securities by sector, industry, and finally by value before conducting an in-depth forecast/analysis for an individual security. Although this is a simple approach, we imply that each step of our screening process either includes or excludes every security within this universe.

This results in an information ratio of .42. We believe this is reasonable based on a study conducted by the eVestment Alliance that found that the median IR vs. S&P 500 over 5 years prior to 2009 was equal to .38**. In other words, we believe we have an IR that is slightly above average.

Thus, we can calculate that our expected return is equal to our information ratio multiplied by the risk we calculated for our portfolio.

\[ .42 \times .2371 \text{ [Portfolio’s Risk]} = 10.06\% \text{ [Expected Return]} \]

*http://www.msci.com/resources/products/analytics/aegis/PI_Converting_Scores_Into_Alphas.pdf
**http://www.jasonhsu.org/uploads/1/0/0/7/10075125/theinformationratio.pdf

2. The team uses the following guidelines to select the portfolio and manage risk:

- 20 to 30 securities per long and short portfolio, 40 to 60 total. The 20 minimum was necessary to fully invest our capital with the 5% per security requirement. The 30 maximum was chosen to allow a reasonable amount of risk for which we can capture the return of.
- All securities will be mid cap or large cap
- All securities will be selected from the Russell 1000 universe
- Position may be as large as 5% or $500,000 of our initial portfolio’s asset value.
- No security in our short portfolio may have a beta greater than 1
• All of initial investment of $10,000,000 will be utilized while also fully investing in a $10,000,000 short portfolio, with exception for cash as seen below
• Cash will always be 1-2% for potential investment ideas and for cashing out of short positions
• The portfolio will not be levered greater than 2:1
• Our long portfolio will include securities from the following sectors: health care, consumer discretionary, technology, and financials
• Our short portfolio will include securities from the following sectors: materials, utilities, energy, and consumer staples
• 5% of our portfolio may be used for securities that we believe are against our investment philosophy, but we believe will still be beneficial to either side of our portfolio

C3. Risk Management

1. Describe any risk measurement models used and how this analysis is incorporated in the portfolio management process.

The group is using the Barra Risk Model in order to identify risk factors that are the most applicable and have the greatest effect on future results. Every 30 days, the group analyzes performance and risk exposure. At this point, the team determines which factors have the greatest impact. The results are then incorporated into the upcoming portfolio rebalance (this is described more thoroughly in the rebalancing section C4).

Additionally, the group ensures that the volatility on both sides of the portfolio is consistent. Volatility is examined in the team’s excel model and by loading the entire portfolio into Bloomberg. Balancing volatility eliminates risk by ensuring that one side of the portfolio should not experience significantly more price fluctuation than the other.

C4. Portfolio Management/Trading

1. How often is the portfolio rebalanced? Please describe the process.

Our portfolio is rebalanced on a monthly basis, with two primary goals in mind. First, the beta is re-optimized back to 0. Over the course of the month, returns influence the fund’s asset value, the beta changes, deviating from its original value. Rebalancing corrects this beta shift. Second, each security is analyzed on an individual basis to determine if its future still appears promising. Securities that have grown larger than the 5% security threshold but still exhibit strong growth potential are removed from the balancing process. In other words, the value of the security is subtracted from the total fund value, the portfolio is re-optimized while excluding said security, and then the security is added back in.

During this second stage, positions that have not had a positive impact on our portfolio by the end of a given month are closed out. The multistage security selection process is repeated in order to replace these holdings with companies that we believe add more value to our portfolio.

While official rebalancing occurs on a monthly basis, the investment team reviews the portfolio and market performance daily in order to maintain the potential for ad-hoc balancing. Market events such as
earnings releases, leading indicator reports, and world events have the ability to significantly affect the outlook of both individual securities and the market as a whole. In order to take advantage of positive events and respond quickly to negative ones, frequent portfolio reviews are vital.

Finally, securities in either our long or short portfolio that show an individual return of -10.00% are removed as we believe this is a reasonable stop loss for our portfolio*. While losses on this security may not continue, our belief in momentum indicates that losers continue to underperform their competitors. Therefore, these positions are closed and replaced. Because cash returns a very low interest rate, new securities are purchased within 3 days (using previously stated security selection techniques) in order to ensure that the portfolio has the maximum potential to generate growth.

*We of course reserve the right to ignore said rule should we believe the company will be bounce back over the course of the following few days.

Part D – Attribution

D1. Performance Attribution

1. What is your benchmark? How do you measure portfolio performance?

A market neutral portfolio is designed to eliminate market risk. Another way to accomplish this goal is to invest at a “risk-free rate”. United States 10-year Treasury–bonds are a strong measure of this rate. Therefore, the goal of this fund is to return a rate that exceeds the US 10-year Treasury-bond rate. On October 31st, 2013 (the day the portfolio was created), the risk free rate was 257 basis points.

2. How do you track the success or failure of decisions made within each stage of the investment process? How does this information change your investment process?

**Sector Allocation:** A correct macro analysis should lead the team to select the highest performing sectors. Sector returns since Nov. 1 will be ranked. Long sectors should fall within the top four sectors. Short sectors should fall within the bottom 4 sectors. This will allow the group to determine the correctness of the sector allocations.

**Industry Selection:** 1-month industry returns will be evaluated for given sectors using Bloomberg data. A long industry should be in the top half of its sector while a short industry should be in the bottom half of its sector.

**Security Selection:** The 1-month return of securities will be compared with the 1-month return of the industry. A long security should be in the top half of its industry while a short security should be in the bottom half of its industry.

This process allows the team to do a top down analysis of the portfolio. Sector allocation, industry selection, and security selection can all be analyzed independently, allowing the team to determine if any parts of the investment strategy need to be reevaluated.
Part E – Bonus Section

1) Who is the greatest rock n roll band of all time and why?
   Kanye West because, “I’m a let you finish, but Kanye West was the greatest rock n roll
   band of all time”. Jokes aside, he did actually say “I’m the number one living and breathing rock
   star” and everyone knows that everything he says is 100% correct all of the time.

2) What movie will win the Oscar for Best Picture in 2014?
   Everyone knows that 12 Years A Slave should win best picture, but Wolf of Wall Street, a
   film of corruption and money, might just steal the show.

3) What is the #1 destination for Spring Break and why?
   Mexico, as it is but a stone’s throw away from Tucson, Arizona. Thus, investing in a
   vacation there will provide us with the greatest value. Benjamin Graham might agree that it’s
   The Intelligent Investor’s best choice.
Notes from Team Meetings

2013-14 CQA Investment Challenge Notes

The following notes are from the most important meetings and dates throughout the portfolio competition:

10/11/13: Initial Team Meeting & Introductions
Discussion: Conference call with team members, Chris Campisano, & Professor Gosnell. Made introductions and discussed guidelines and rules.
Action: Planned team meeting to start discussing strategy.

10/13-10/19: Team Strategy Discussions
Discussion: First team meeting was used to discuss what a market neutral portfolio is and how the rules and guidelines affect that concept. All came to the meeting with research about market neutral portfolios but realized we need more. Second, we talked about the time horizon outlined but CQA and our actual time horizon based on the start and end date of the challenge. Instructed to work off the idea of a horizon of 2 years but in reality, only have about 5 months. Lastly, talked about major events happening in the economy over the next 6 months and where we think that economy will be going on a macro level. (PUT IN ACTUAL IDEAS HERE)

Discussion: Conference call with Professor Gosnell and Chris Campisano. Chris said he has never done a market neutral portfolio so he was interested to see how it worked out. Said he didn’t want to tell us what to do but gave ideas on where to start: PUT IN IDEAS HE GAVE

Discussion: Decided to choose two sectors we thought would benefit according to our macro predictions and two we expected to go down.

Bullish:
- Consumer Discretionary
- Technology

Bearish:
- Consumer Staples
- Utilities

Also, discussed each of our standpoints on Healthcare due to Obamacare. Half of the team thought healthcare would benefit, some thought it would be hurt. Decided to play it by ear but we all agreed that pharmaceuticals should be fine so stay open to those ideas when security selection comes up.

Action: Start looking into security universe (Russell 1000) and working on an excel spreadsheet to help us choose securities within our chosen sectors.
**10/22: Meeting to discuss spreadsheet (screener?)**

**Discussion:** Meeting at Bloomberg terminals because spreadsheet tied in to them. Look over screener at our specific sectors. Realize we need to select industries within our sectors to focus because sectors chosen contain too many stocks to select from. Talked about using the Bride’s Maid Effect to select. (HOW DID WE END UP CHOOSING?). Our strategy is starting to take shape and finalize. Looking at screener, still have too many securities to choose from. Need to streamline the process. Talked about certain fundamentals that will make the stocks stand out.

**Action:** Add formulas to spreadsheet highlighting fundamentals that are beneficial to selection. Green: within parameters to take a closer look. Red: don’t meet requirement (REPHRASE)

**10/24 & 10/28: Meet to select stocks**

**Discussions:** Talked about each stock brought up as a group. Took longer than we predicted it would.

**Actions/Strategy for selection:** Three members on Bloomberg terminals and one or two looking up news on companies that meet criteria on spreadsheet. Companies with 3+ green fundamentals and within sectors chosen, were brought up, discussed and looked into. Once decided to long or short, put into spreadsheet. Due to maximum amount allowed per stock, we needed 20-30 stocks on each side. Once filled, ran spreadsheet to calculate amount for each security and calculate beta.

**10/31: Finalize portfolio on Stocktrak (Initial Portfolio)**

<table>
<thead>
<tr>
<th>Ticker</th>
<th>Long # of shares</th>
<th>Short # of shares</th>
</tr>
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<td>KO 12,450</td>
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<td>MNST 8640</td>
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<tr>
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<tr>
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12/1/13: Investment Management Questionnaire turned in

12/6/13: Final call with Chris Campisano before break
Discussion: Talked about questionnaire that was turned in and plan for keeping up with the portfolio during break. Chris recommended pairing competing companies for portfolio. For example: McDonalds and Burger King. Buy one and short the other for equal amounts based on which we expect to go up more; already Fed Ex and USPS in portfolio that match this strategy. Look into more.

Actions: No immediate action.

12/16/13-1/7/14: Christmas Break
Actions:
- Cover JCPenny short for $75,000 return
- Buy Goldman Sachs

1/19/14: Notified violating max cash rule
Actions:
- Buy TRW automotive Corp –3000 shares
- Buy NuSkin—1800 shares
- Short Clorox –288 shares
- Short Coach—5125 Shares

1/27/14: Decision to switch strategies
Discussion: Starting about one week earlier, nearly all stocks took a hit. We believe that the market is reverting back to the mean after record highs in 2013, namely November and December. Our outlook for the market in the near future has switched to bearish. Noticed almost all top returns in our portfolio are our shorts. Want to maximize that.

In order to maximize return with the new outlook we discussed implementing the following tactics:
- Keeping more than 3% cash in the portfolio (still under allowed 5%) for opportunity buys if market revives
- Sell all financial stocks we own and short them
- Look into consumer staples and utilities--Especially tobacco
- Sell “pricey” stocks in consumer discretionary/technology

Actions:
Financials
- Sell Bank of America—Short 30,000 shares
- Sell Goldman Sachs—Short 3000 shares
- Sell Citigroup—Short 10,000 shares
- Sell JP Morgan—short 9000 shares
Consumer Staples
- Cover Kraft—Buy 9000 shares
- Cover Coca Cola (KO)—Buy 12,000 shares
- Cover Proctor & Gamble—Buy 6,000 shares
- Cover Clorox—Buy 2500 shares
- Buy Altria
- Buy Lorillards

Other:
- Short Tesla—1400 shares
- Short Facebook—4500 shares
- Cover Newmont Mining Corp—Buy 10,000 shares

2/20/14: Portfolio Update Meeting
Discussion: Began talking about how we wanted to answer the questions from CQA to include in the portfolio update. Finalized the direction that we wanted to take the update. Update was to be completed based on the portfolio as of January 31st. At that point, we had a negative return so there was discussion on how to word to sound as optimistic as we were. Decided to make the update sound like an Earnings Call for a unique spin.

Action: Split into sections to have compete for the following week

2/26/14: Portfolio Update Meeting
Discussion: Portfolio update has been completed. Talked about any changes. Finalized first draft.

Action: Send to Chris Campisano for his opinion. Make any changes before final turn in

2/28/14: Turned in Portfolio Update

3/9/14: Meeting to work on final paper
Discussion: Split paper in to section to be completed. Picked a date we aimed to have our sections completed to combine.

Action: Complete by early April after we have final results

3/31/14: Competition Ends

4/7/14: Meeting for update on paper
Discussion: Finalized how we wanted to summarize the results.

Action: Finish by Friday to be combined and turned in by April 18th