

## **Trading Project**

The exercise starts on Aug 30<sup>th</sup> -Dec 6<sup>th</sup>. Assuming that you are now a mutual fund manager, you are trying to manage a portfolio of stocks, bonds, derivatives, etc. The purpose of the project is to facilitate your learning and provide an opportunity of utilizing the techniques such as short-selling, buy on margin and other trading strategies.

### **Sign-up link:**

<http://www.stocktrak.com/members/registerstudent?className=KSU-FIN36059-Fall2017>

### **Below is guidance for the trading exercise:**

1. Before trading, you are required to close all transactions in your current account. That means you only hold cash.
2. Trading period is Aug 30<sup>th</sup> -Dec 6<sup>th</sup>. Trading constraints: (1) your beginning hypothetical cash position (This is the base used to calculate your portfolio performance during trading weeks); (2) you can do a maximum of 100 transactions (including the number of transaction you have traded in part 1 and 2); (3) you are allowed to day trading; (4) you can have at most 5% of your portfolio in one specific security (such as IBM shares, Ford bond, etc.).
3. You are required to write a report regarding your investment decision. You should submit the portfolio management report on December 7, 2017.

### **Requirement for project report**

Your report should first outline your trading philosophy and strategy at the beginning of your trade, then provide detailed analysis on select trades (the reason you make that transaction and the cause for the results, etc.). More specifically, you need to: (1) track the weekly performance of your portfolio, (2) analyze the macroeconomic, financial market and stock-specific news events that may have affected the risk and return performance of your portfolio, and (3) evaluate statistically the relative and absolute performance using various tools and techniques, such as different financial ratios that you've learned in the course.

Moreover, based on your own investment experience, you need to answer the following questions: (1) are you subject to any behavioral biases we discussed in class? (2) what is your view on the market efficiency debate, and (3) how has your view affected your portfolio management?

Use of a spreadsheet program such as Excel is highly recommended. The excel file is not required to submit. However, you should summarize your analysis results into tables and incorporate them into your trading report.

#### **I. Equity analysis**

- price level and change (performance);
- a measure of historical return. I suggest 5 years;

- a measure of the security's risk-- the standard deviation of returns. I suggest 5 years of monthly data. You can obtain data from the Microsoft Investor site, <http://investor.msn.com/research/welcome.asp> (use "charts" to download data) or from Yahoo at <http://quote.yahoo.com/>
- the betas of each security;
- application of DDM

II. For the three-stock portfolio analysis, your goal is performance and risk analysis:

- Estimate the degree of diversification of your portfolio by computing the correlation matrix of your assets;
- Find the portfolio beta;
- Find the portfolio expected return, using the T-bill rate as the risk-free rate and 12% as the market return;
- Measure the portfolio's excess return: the difference between the actual and the expected;
- Calculate the Sharpe ratios of your optimal portfolio.

III. Bond analysis

- Select two bonds in your portfolio to get the bond information (maturity, coupon, yield to maturity)
- Compute the duration and convexity of the bonds

IV. Mutual fund recommendation

- Recommend one stock and one bond mutual fund based on the performance, risk and fee structure
- A mutual fund transaction is not a must in your portfolio

The report should be 5-8 pages long. (double-spaced, 12-point font), not including various exhibits, figures and graphs to support the analysis. You must include reference.

Your grade is determined by the quality of the report, both analysis and writing. I also reserve the right to give higher or lower grades to individuals in the same group that contribute more or less, respectively, according to my observation and your peer evaluation. I do not expect anyone to be an expert portfolio manager. This is an exercise in learning. This includes taking initiative in finding information and making sincere effort to apply the concepts and methods that are being covered in the course.

### **Points distribution**

1. Trading philosophy and strategy—5 points
2. Weekly performance, news or events that affect your trading decisions—10 points
3. Equity analysis—25 points
4. Three-stock portfolio analysis—25 points
5. Bond analysis—20 points
6. Mutual fund analysis—10 points
7. Behavioral biases and summary—5 points