## Parley Vernon's Semester Project

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## **Executive Summary:**

From a young age, I have always been interested in the stock market. So for the final project for this class I decided I would create something that could help me in the future as I continue to invest money. I decided to extend the first assignment we did of determining whether a company was a 'fallen angel' or not to include all of the 10 factors that Benjamin Graham (the father of value investing) would look at to decide whether a stock was a good buy at the time or not.

In the spreadsheet a person can enter as many tickers as they would like and simply press the button at the top of the page to have the sub procedure collect data from the internet and tell the person which of the 10 tests it passes. This is very quick and helpful for anyone that ever is interested in investing their money in a safe and reliable process.

## Implementation

This project took a lot of steps to complete. I had to start out by learning the 10 rules that Benjamin Graham said we should follow. Understanding the basics behind the 10 rules was the first thing that I had to do. Definitions of Net Current Asset Value, Earnings to Price Yield, and Tangible Book Value are just a few of the definitions I perused the web to find.

Secondly, I had to find a way to get the data that I needed from the internet. Unfortunately, there wasn't just one web page that contained all of the data. After doing a thorough job of scouring the internet trying to find what I needed, I realized that I would have to grab data from six different sites in order to have everything.

Third, I had to have a way to sort through all of the downloaded data and take out just the tidbits of information that I needed. Part of the macro goes through and searches for those numbers that are absolutely critical to have and brings them to the first page.

Fourth, I had to go through and do the calculations to actually show whether or not the stock we selected passed the criteria set up for it by Graham. The ten calculations are not that hard in and of themselves, but it was difficult to get the right data.

Although the implementation may not seem too difficult, the complexity of it came from finding and retrieving the data. In some circumstances you have to go through years of financial statements to get what you need.

## **Difficulties Encountered**

Far and away the biggest thing I noticed when beginning was that it was a lot harder than I thought it would be to find verifiable, accurate data for free on the internet. I began to realize why people pay tens of thousands of dollars every year for programs such as Bloomberg and Research Insight – they have the data you want, and it is quickly accessible. In the end I decided upon six pages that I would bring in through web queries and I would have what I needed. I spent a lot of time going through page after page of financial data looking for something that would give me enough years of historical data. I feel that I am now very proficient in both finding data on the internet and bringing it into excel through a web query.

Also, I realized that every time you bring in a query the format can be different from the last time you brought one in. This can be extremely frustrating. I had to figure out a way to find the data in a query that could change every time you refreshed or edited it.

I think it is common knowledge that with every sub procedure or macro you write there will always be problems that pop up that you never thought of before. For example, I had to figure out how to separate numbers from words when the price of a stock comes into a single cell as \$35.42 USD and I want only the number and not the letters. I expect that everyone who did a project ran across a multitude of these small things where you learn how to get around problems you never saw coming.

I feel that I learned a great deal by doing this project, and not only about VBA. I know have the 10 rules of value investing memorized and also feel very confident with any project where you have to bring in external data and manipulate it.