

# CALIFORNIA STATE SCIENCE FAIR 2004 PROJECT SUMMARY

Name(s)

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Project Number

# S1213

### **Project Title**

# Are You Making Money in the Stock Market? Juxtapositional Analysis of Money Flow vs. Momentum Indicator

Abstract

# **Objectives/Goals**

Several different market indicators are often used to predict trends or patterns in stocks. Two of the most common tools used by stock analysts are money flow and momentum. The Money Flow Index ("MFI") is a momentum indicator that measures the strength of money flowing in and out of a security. It is related to the Relative Strength Index, but the Money Flow Index accounts for volume. The Momentum indicator measures the amount that a security's price has changed over a given time span. In this project, these two different indicators were used as tools for deducing patterns. The purpose of this project was to, first, discover if both the Money Flow Index and the Momentum indicator produced credible predictions; and second, to deduce, in terms of percentage, whether the Money Flow Index or the Momentum indicator was more beneficial.

#### **Methods/Materials**

The Money Flow Index can be interpreted by finding a divergence between the indicator and the price action. If the price trends higher and the MFI trends lower (or vice versa), a reversal may be imminent. The Momentum indicator can often be used as a leading indicator. As a market peaks, the Momentum indicator will climb sharply and then fall off-- diverging from the continued upward or sideways movement of the price. Similarly, at a market bottom, Momentum will drop sharply and then begin to climb well ahead of prices. Both of these situations result in divergences between the indicator and prices. With these techniques, I used the software program eSignal 7.5 to analyze the graphs of over 60 stocks.

## **Conclusions/Discussion**

After analyzing numerous stocks, there were definitely certain conclusions that could be drawn. Through the course of the experiment, 65 stocks were analyzed. The data table that was created clearly showed the open price, close price, money flow change, and momentum change for a particular stock. This made it easier to analyze the data and draw conclusions. The resulting percentage of occurrence for money flow was 38 out of 53, approximately 72%. For momentum, the result was 15 out of 53, approximately 28%. These percentages show that the money flow index played a predominant role in the charts that were analyzed. In the end, Money Flow was determined to be a more beneficial technique for predicting patterns in charts.

#### **Summary Statement**

This project is about comparing two widely used stock market techniques to determine which is more beneficial.

**Help Received**