

**INVESTING & INFORMATION MEASUREMENT THEORY:  
CALCULATED RISK**

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## Abstract

Dr. Dean Kashiwagi created a new thinking paradigm, Information Measurement Theory (IMT), which utilizes the understanding of natural laws to help individuals minimize decision-making and risk, which leads to reduced stress. In this new paradigm, any given situation can only have one unique outcome. The more information an individual has for the given situation, the better they can predict the outcome. Using IMT can help correctly “predict the future” of any situation if given enough of the correct information. A prime example of using IMT would be: to correctly predict what a young woman will be like when she’s older, simply look at the young woman’s mother. In essence, if you can’t fall in love with the mother, don’t marry the young woman. The researchers are utilizing the concept of IMT and extrapolating it to the financial investing world. They researched different financial investing strategies and were able to come to the conclusion that a strategy utilizing IMT would yield the highest results for investors while minimizing stress. Investors using deductive logic to invest received, on average, 1300% more returns than investors who did not over a 25-year period. Where other investors made many decisions and were constantly stressed with the tribulations of the market, the investors utilizing IMT made one decision and made much more than other investors. The research confirms the stock market will continue to increase over time by looking at the history of the stock market from a birds-eye view. Throughout the existence of the stock market, there have been highs and lows, but at the end of the day, the market continues to break through new ceilings. Investing in the stock market can be a dark and scary place for the blind investor. Using the concept of IMT can eliminate that blindfold to reduce stress on investors while earning the highest financial return potential. Using the basis of IMT, the researchers predict the market will continue to increase in the future; in conclusion, the best investment strategy is to invest in blue chip stocks that have a history of past success, in order to capture secure growth with minimal risk and stress.

Keywords: IMT, paradigm, stock market, investing, predict, future, risk, and outcome.

## Executive Summary

### Introduction

Ryan Berns and Julian Ybanez were exposed to a new paradigm, Information Measurement Theory (IMT), in the honors program that changed their views on investing in the stock market. It resulted in the capability to apply this paradigm to investing in the stock market to lower stress levels and reduce decision-making for investors while achieving a high rate of financial success.

### Questions Raised of Study

1. Using IMT, can the researchers find investments that yield constant success while minimizing or eliminating risk?
2. Looking at the history of the stock market, can the future of the stock market be predicted using IMT?
3. How can using IMT successfully increase the livelihood and reduce stress of an investor?

### Thesis Content

Unique trading strategies were simulated to [refer to methodology on page 6]

1. Quantify investment yields based on different investment strategies.
2. Quantify the success of an IMT strategy.
3. Determine an ultimate investment strategy.

### Conclusion

- Using IMT principles, it is possible to have positive growth while reducing stress.
- By limiting the decisions while invested in value stocks, investors gain on average 13 times more when allowing the market run its course (in and out of recessions) than they would if they were making more decisions.
- Investors only need to make one investment decision, “when to start investing?”

### Recommendations

1. Investors need to limit their investment decisions.
2. Investors need only to invest in indices, or value (blue chip) stocks.
3. Ignore hype and other noise that will always be present.



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## Introduction

Risks of investing, as well as losing hard earned money, can be some of the most emotionally draining things an individual can go through. The stock market is full of emotional highs and lows. Welcome to the world of investing where most investors lose money due to poor decisions and lack of knowledge. People often get the misconception that investing in the stock market is the same as going into a casino and gambling money. The difference about investing in the stock market and gambling in a casino is that investing in the stock market isn't gambling when you have enough of the correct information. In the stock market, investors are constantly trying to assess the profit that will be left over for shareholders. This is why stock prices fluctuate. The outlook for business conditions is always changing, and so are the future earnings of a company. Information Measurement Theory, as taught by Dr. Dean Kashiwagi, proves that when an individual has the necessary information, they can predict the outcome of an event because it can only happen one way. We can apply this same concept to investing in the stock market. The researchers wanted to solve the following: maximize returns while minimizing risk and stress. To do so, the researchers analyzed investment strategies in different vehicles such as bonds, CDs, day trading penny stocks and blue chip stocks and compared them to inflation. Each has their positives and negatives, but only a couple investments eliminate the factor of risk and stress. The researchers dove into these investments and found the answers to the following questions:

1. Using IMT, can the researchers find investments that yield constant success while minimizing or eliminating risk?
2. Looking at the history of the stock market, can the future of the stock market be predicted using IMT?
3. How can using IMT successfully increase the livelihood and reduce stress of an investor?

## Purpose of Research

Our purpose is to prove which investment strategies have the best financial return in relation to time and Information Management principles. The goal of Information Management Theory is to limit stress. Although the aspiration of wealth is a huge draw for investing in the stock market, attempting to recreate complex trading strategies introduce unnecessary risk for investors.

## Methodology

The researchers had to dive into historical prices of the stock market to fully understand investing and deduce which investment strategy yields ultimate results. They looked at a 25 year sample of multiple markets, individual stocks, and equally weighted portfolios and implemented different trading strategies to simulate decisions investors made over the time period.

Over the course of the sample years (Jan 3 1990 – Jan 5 2015) the United States of America faced three recessions. The first, occurring July 1990 and lasting until Mar 1991 was partially attributed to the oil price spike (Hall, 279) the second, which happened between March 2001 and November 2001 resulted from the dot-com bubble collapse (Filardo) and the third, caused by the subprime mortgage crisis lasted from December 2007 until June 2009 (NBER).

American perceptions leading up to these recessions were mixed. There were plenty of skeptics (bears) as well as optimists (bulls) (Peck). These mixed signals from those considered financially savvy put strain on the average investor. The average investor was perplexed. (Peck) Should they still invest in the market and keep riding the bull market up? Or should they listen to the skeptics and believe the market is about to crash and deplete their hard earned portfolio earnings?

In order for the researchers to simulate the strains of common investors, they decided to simulate two different trading strategies with regards to getting out of the market and the three recessions. Both cases would simulate a “buy” into the market on January 3, 1990 as well as a “sell” three months into a recession. However where the simulations differ is the “buy back”. In case 1, the researchers simulated that the average investor would buy back into the market three months after the recession was complete. The idea behind this buy back was that three months after the recession is over more conservative investors would trust the market again. They would see the gains as the market rebounded after the crash, and once the recession was officially over they were intrigued in the market again.

As for case 2, the researchers simulated that the average investor would buy back into the market three months before the recession officially ended. Hindsight is 20/20. By looking back at the recessions today, the researchers as well as the populous can determine when the market was in recession. However, during the actual time period of the recession there is a lot of noise and skepticism on whether the market is truly in recession. The researchers were able to simulate the decisions more optimistic investors made by buying back into the market three months before the recession ended.

## CDs

CD's are low-risk, low-return investments sold by banks in exchange for cash for a period of months to years. Leaving the money alone (without making withdrawals) during the investment period will pay the investor an interest rate slightly higher than what you would have earned if you would have left that money in a checking account. Gains from CDs are taxed as income, unless they are in a tax-deferred IRA or tax-free Roth IRA account. (Investopedia) For a CD, the interest rate is pre-determined and guaranteed to get back the money you put in plus the interest at full maturity. The researchers found investing in CDs is a low stress, low risk investment in return for minimal gain. In terms of IMT this is an acceptable investment although it is not ideal.

## Bonds

In simple terms, when someone buys a bond, they are loaning money for a certain period of time to the issuer. In return, bond holders get back the loan amount plus interest payments. Bonds have a fixed life span and interest payments but their returns are not. When interest rates decrease, bond prices increase. Holding a bond to maturity will result in the original face value of the bond, along with all the interest. (Investopedia)

Investing in a bond will always return interest and principal at maturity. With a bond fund, the return is uncertain because the fund's value fluctuates. Stock returns have a higher chance of outpacing inflation. Based on IMT, young and middle-aged people should invest their money in stocks. Bonds are an acceptable investment of IMT, but not ideal.

## Day Trading

Day trading is the art of buying and selling stocks within the same trading day. Most stocks that are day traded are penny stocks (stocks worth \$5 or less) due to higher volatility. While it is possible to make a short term gain, it is difficult to be successful long term. Only 5% of penny stock day traders are successful long-term. The researchers followed penny stock trader, Timothy Sykes, (Prfofit.ly) due to his popularity and past success. His strategy is found in appendix 3. The researchers tried to implement Tim's strategy to using their own money. The researchers opened an account with \$5000 and over the course of the year they lost almost \$1000. The trades are illustrated in appendix 2. Obviously trying to mimic someone else's strategy proved to be unsuccessful. Day trading resulted in an unacceptable investment strategy according to IMT principles.

## Blue Chip Stocks

IMT focuses on limited stress. Decisions and risk are considered major causes of stress (Kashiwagi) which is what the different cases are attempting to simulate. Risks in IMT are different than those in the market place. Both cause stress, but in the market place, investors

should be compensated according to the systematic risk they take on. However as the simulations demonstrate, there is no significant reward for taking on more risks. Investors that take on more risks and are more stressed are not even getting returns to offset their personal struggles. Rather than make decisions on whether to be in or out of the market, the investors should just stay invested. This isn't to say that investors should just throw darts at the board and stay invested in whichever stocks they hit, but rather make one decision, and decide what a good company to invest in is.

The researchers used the trading strategies to evaluate how investors investing in different blue chip stocks would be rewarded for their investments. They looked at The Coca-Cola Company, Apple Computers, General Electric, Microsoft, American Express, Bank of America, Proctor and Gamble, Pepsi, Ford, McDonalds, Berkshire Hathaway, Walmart, AT & T, Disney, as well as Johnson and Johnson. The researchers were able to calculate the "missed returns" by subtracting the sum of the returns from the trading strategy (case 1 or 2) from the total return if an investor were to stay invested the entire twenty five years. In essentially all the simulations the investors missed on significantly on returns.

Imagine an investor who follows the case 1 simulation as they invest in the Coca-Cola Company. They would buy the stock initially at an adjusted price of \$2.38. Then on October 1, 1990 they would be spooked by the recession and sell all of their stock. After some time passes they regain faith in the market and buy Coca-Cola stock again on June 3, 1991 for \$4.19. Suddenly another crisis occurs and the investor hears a lot of different ideas, they get convinced to sell out of Coca-Cola on June 4, 2001 at \$15.94. The recession clears up and February 4, 2002 the investor again buys back into Coca-Cola for \$16.09, however the subprime mortgage crisis occurs and the investor sells his Coca-Cola stock at \$23.71 three months into the recession on March 3, 2007. Finally faith is restored in the market and on September 8, 2009 the investor buys back into Coca-Cola at \$21.94. In order to determine the profits of the investor we sell his stock again on January 5, 2015 to get an overview of his/her investment. Based on the case 1 trading strategy of Coca-Cola, the investor would have made a return of 431% on their investment. However, if he/she would have stayed invested the entire twenty five years in Coca-Cola, they would have made 1333% return. The decisions the investor made, which caused him/her stress also cost the investor 945% of potential returns. Not only is this the case with Coca-Cola based on the case 1 trading strategy, but if the investor were to follow case 2, he/she would have missed out on 821% of potential profits.

For most of the blue chip companies the researchers analyzed, the results were fairly constant. Apple may have had the largest overall gain over the last twenty five years, but if an investor followed case 1 strategy they would have missed out on 7548% of profits and 6671% if they followed case 2. GE was one of the few companies where the investor would have actually benefited from making more decisions. An investor utilizing the case 1 strategy would have received 146% more than an investor who stayed invested in GE where if they followed case 2 rather than stay invested they would have received 655% more profits. The table below represents the sum of the missed returns given the specific blue chip company. Overall if an

investor were to make decisions and move in and out of the market they would miss an average of 1300% possible returns.

|                          | Sum of Returns from 1990-2015 | Missed returns case 1 | Missed returns case 2 |
|--------------------------|-------------------------------|-----------------------|-----------------------|
| Investment Vehical       |                               |                       |                       |
| Inflation                | 66%                           |                       |                       |
| 6 Month CD Interest Rate | 90%                           |                       |                       |
| 10-year T. Bond          | 174%                          |                       |                       |
| Bank of America          | 231%                          | -68%                  | -835%                 |
| Ford                     | 291%                          | -203%                 | -1092%                |
| S and P 500              | 481%                          | 145%                  | -12%                  |
| Russell 3000             | 517%                          | 179%                  | 9%                    |
| AT T                     | 552%                          | 102%                  | 123%                  |
| GE                       | 803%                          | -146%                 | -655%                 |
| Disney                   | 1148%                         | 619%                  | 303%                  |
| Coca-Cola                | 1377%                         | 945%                  | 821%                  |
| American Express         | 1495%                         | 7548%                 | 6671%                 |
| Pepsi                    | 1503%                         | 1322%                 | 1261%                 |
| McDonalds                | 1609%                         | 1136%                 | 1096%                 |
| Procter and Gamble       | 1789%                         | 1071%                 | 957%                  |
| Wallmart                 | 1889%                         | 1372%                 | 1165%                 |
| Johnson and Johnson      | 2308%                         | 1714%                 | 1521%                 |
| Berkshire Hathaway       | 2462%                         | 1586%                 | 1266%                 |
| Apple                    | 8793%                         | 688%                  | -92%                  |
| Microsoft                | 10355%                        | 7898%                 | 6572%                 |

Many people fear losing their money on bad investments. Those who do invest their money, tend to put it into “safe” investments. To most people, the idea of investing in the stock market is a risk. Almost everyone believes investing in penny stocks is a very HIGH risk. The reason for this is because people are uneducated (blind) and don’t have all the information which then creates the illusion of risk and fear.

Penny stocks are speculative companies trading under \$5 a stock and are very volatile. Penny stock trader Timothy Sykes, turned \$12,000 into \$3 million in 3 years trading penny stocks. He teaches a system that offers information on how penny stocks work and eliminates the illusion of risk associated with investing in them. Financial “professionals” didn’t believe it was possible so they mocked him and called him a phony. Tim was able to do it again through verified trades and was then featured on NBC, CNBC and other major news stations to share his story. If more people learned how to trade penny stocks there would be a whole lot less misinformation out there.

We can apply this to IMT/KSM, when people are blind and don’t have all the information, they believe in chance, luck and risk. In this case, these traits exemplify the financial professionals. When the information is available, as it was with Tim Sykes, the illusion of risk disappeared. The main point here is people are afraid of risk. Fear is imaginary and the term risk simply means that person does not have all the information.

Tim bases his stocks off a set of 64 rules. While the researchers under IMT principles personally dislike rules and in our class we don’t like being restricted to rules, it is necessary to follow them when trading stocks. Rule #1 - cut losses quickly; this is the most difficult to abide by due to ego. When you are wrong, realize the mistake and get out when it doesn’t go your way. Understand the small losses and small gains don’t get the investor rich, but they protect the investor from big losses. If they focus on taking good trades, those that do EXACTLY what the investor expects, those trades DO make the investor rich...so the key is giving myself (the investor) opportunities to hit home runs, but taking singles, doubles and even strikeouts every now and then will help to protect major downside risk (loss). Despite the entire world tarnishing penny stocks, the manipulation and the patterns it creates is predictable, and so are the profits if you follow my [Tim Sykes] teachings...many people didn’t believe me [Tim Sykes] when I turned \$12,415 into \$1.65 million in 4 years, but now that I have 2 students doing the same, and especially Tim Grittani who is beating my rate of return given that he’s up from \$1,500 to \$1.41 million in 3 years, well, let’s just say you can doubt me all you want — my first millionaire student even wrote this post saying I was full of BS before coming around and making \$1.2 million in just a few years now — EVERYONE comes around eventually...that’s the beauty of being 100% real and transparency. (Tim Sykes)

## Conclusion

The researchers were able to quantify investment returns through the methodologies details above. Essentially the simulations of different investment strategies as well as a sample of live trades provide quantifiable data promoting an investment strategy that utilizes IMT principles. Ultimately investors receive more returns (average 1300% more) when they make one investment decision (when to enter the market) rather than multiple (when to move out and back into the market). IMT is emphasizes using information to help understand what an outcome will be. The stock market will continue to rise based off the natural law that the market is higher today than it was twenty-five years ago. Investors should not worry about market crashes, nor



“opportunities” to get rich quick. All investors need to worry about is how soon they can actually afford to start investing. Once they are able to invest and survive off of their basic income, they do not need to worry about what their money will do. Stock market crashes, as well as recessions, will happen, but the investor who can withstand the hype, stay emotionally strong and disciplined, will withstand the hardships associated with the market and come out on top. In the same sense that one can predict whom their spouse will be by looking at their spouse’s parent, the researchers have proved that the stock market will go up based on outcomes that have happened in the past for the market.

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## Appendices

### Appendix 1: IMT Definitions

**Alignment:** A personnel's capability allows them to successfully do the required task. A person can do the required task with the minimum amount of management, direction and control.

**Best Value Approach:** Practices the use of dominant information in a transparent environment which minimizes the use of decision making, direction, and control. The approach uses dominant information (verifiable performance metrics that everyone can understand).

**Change:** To create a difference from what originally was, resulting from the application of newly perceived information, and leading to a state of using newly perceived information (One of the actions in the “Cycle of Learning”).

**Control:** An incorrect and inaccurate idea that an individual can take away another individual's free will by forcing them to think, to feel or to act a certain way. IMT and KSM support the idea that an individual cannot control another individual, but that every individual has complete control over their own lives. If a person believes in control, they must also believe in chance, and will practice in blaming others and not being accountable for project failure. Influence is a mild form of control.

**Conditions:** Conditions are a description of reality at a time and location. There is no space without conditions. Conditions include factors that make each condition unique. Time and location make each condition unique. A unique condition has many different factors including people, resources and environment.

**Cycle of Learning:** The cyclical procedure, by which a person perceives, processes, applies the concepts and changes according to understanding and application of the newly perceived information. As people go through the cycle of learning, the speed at which they go through the cycle gets faster. Those who do not change as quickly, have slower perception and processing speed. The cycle of learning when combined with the event happening one way, identifies that people are always doing the best they can based on their level of understanding. People who change quickly are identified as Type A with more LS characteristics, and those who change slowly are Type C using more RS characteristics.

**Decision Making:** An action taken by an individual when they perceive potential multiple outcomes to an event. Decision making identifies an individual as not understanding the initial conditions, and requires the individual to use their own personal experience to solve the problem. Decision making increases risk. When someone makes a decision it is because they cannot identify dominant information that dictates the future outcome. Therefore, decision making is based on information that they do not understand. Decision making increases risk.

**Decision-Maker:** An individual who maximizes their risk by making decisions when they do not have enough information to identify or predict the future outcomes (see “Decision Making”).

**Deductive Logic:** A type of reasoning where individuals make conclusions from observation of dominant truths, laws or concepts. Deductive logic requires an accurate perception of reality and the ability to explain the concepts in terms of knowledge that is understood by

all. Deductive logic does not require technical expertise to understand the initial or final conditions.

**Dominant:** A description of truth that is simple, easy to understand and predicts the future. A principle that is so simple, apparent, relevant and important, that it can predict the final outcome. Everyone will be motivated to do the same thing because they can understand the dominant information and see into the future. Dominant information usually results in consensus. Dominant information identifies the future outcome, and motivates everyone to reach the same conclusion. Dominant information is often in terms of numerical measurements.

**Event:** Anything that happens that takes time. An event has initial conditions, changing conditions throughout the event and final conditions. The event initial conditions dictate the final conditions due to the natural laws that dictate how conditions change over time. All events have been observed to have only one outcome. Hindsight verifies that events can happen only one way. The description and logic of the event model proves that no one can influence, change or control the event or any of the event participants to change the final conditions to something that is not related to the initial conditions. Every event initial conditions are unique based on time and location.

**Expert:** A person who is proficient and specialized in a certain skill, practice or service. Their knowledge base and experience allows them to accurately predict future outcomes. Experts do not have technical risk. The only risk they have is the risk that they do not control. Experts always think in the best interest of the buyer and will identify and mitigate the risk that they do not control.

**Final conditions:** The end result of an event. The final conditions are controlled by the initial conditions and natural laws.

**Influence:** Lesser form of control. Influence and control are both forces external to people. The majority of people believe that one person can influence another person. Deductive logic and the KSM identify that one person cannot control another person. People who believe in influence also believe in chance, not planning due to external forces changing the future, blaming others when something goes wrong and a lower level of accountability. Logic and observation identifies influence with Type C or RS characteristics. This identifies it as opposite to accountable, planning, visionary, and continuously improving people.

**Information:** Information includes the description of natural laws and unique conditions. Information can be in different formats. Dominant information is in terms of numeric's that can be easily understood. Dominant information will be easier to understand, minimizes decision making, and will bring consensus as it will define the final outcome in everyone's mind.

**Information Measurement Theory (IMT):** The measurement of initial conditions that will predict the future conditions. IMT also includes the use of deductive logic, common sense, and dominant information to predict the future outcome.

**Initial conditions:** The sum of all factors and natural laws that make up the beginning of the event. The more initial conditions that can be perceived and measured, the more accurate the prediction of the final conditions. Every set of initial conditions is unique due to time and location.

**Kashiwagi Solution Model (KSM):** A mechanism where dominance or radical extremes are used to minimize decision making in understanding the difference between Type C, RS characteristics and Type, LS characteristics. KSM is a problem solution mechanism.

**Laws:** Laws dictate how conditions change over time. If understood, laws can be used to predict a future event and outcome. Laws include laws of physics, natural laws and laws that predict human behavior. Laws are discovered and not created. Anything governed by laws are predictable. Anything that is predictable is governed by laws.

**Risk:** An unforeseen event or situation in which the vendor does not control the entities in an activity that has potential to increase the cost, quality or time of a project. (Other vendors, Owner's personnel, weather, etc...)

**Visionary:** Describing a Type A individual whose high perception and fast processing speed allow the individual to apply correct laws, identify conditions and perceive concepts that result in quick change and continuous improvement. Type A individuals can use their understanding of natural laws and perceived existing conditions to be able to see into the future.

**Who Is On My Molecule (WIOMM):** A leadership model stating that people and environmental characteristics around an entity or individual are a direct reflection of that entity or individual. This perspective allows an entity or individual to measure who they are by looking at their environmental surroundings. WIOMM, when related to IMT, identifies that every person and event is connected to an individual. It is the factors of time, duration, and understanding the capability of others, that allows a Type A individual to set an example for Type C individuals that will help Type C individuals to improve.

## Appendix 2: Julian's Trades

Hello fellow traders and friends! Long time no see and I'm very glad to be back in the swing of things! It has been a little less than a month since my last blog post; so let me catch you up on a few recent events:

6/01/14 – Opened a new account with margin trading and an account balance of \$2050.

6/13/14 – Bought \$CYTR 700 shares @ 5.03

6/16/14 – Sold \$CYTR 700 shares @ 4.9 (-97.94, NEW BALANCE: \$1952.06)

6/16/14 – Funded \$1700 from personal funds, NEW BALANCE:\$3652.06

6/17/14 – Bought \$LZB 130 shares @ 24.56

6/17/14 – Sold \$LZB 130 shares @ 24.9901 (+55.83, NEW BALANCE: \$3707.90)

Overall Gain/Loss: -\$42.10

ACCOUNT BALANCE: \$3707.90

\$CYTR was recommended to me by one of my finance friends and the biggest reason that caught my interest after research, is that analysts predict this stock to hit \$8 or \$9 within a few months. I saw a trough during the day and bought on the 3rd pull back at a daily low of 5.04. I would've sold that day at 5.13 but I was pre-occupied so I held on overnight. The next morning a "morning panic" happened and with my inexperience I sold right when I saw the ship going down. I lost \$97 which I was really bummed about since I KNEW this stock would eventually rise, which it did a few hours later. The biggest lesson learned from this trade is to not to PANIC especially right after the bell rings. The chart below illustrates when I bought, sold and where it is now:



I found \$LZB looking through companies whose earnings reports were being made public for the day. \$LZB was estimated to break EPS estimates after hours. I bought 130 shares @ 24.56 very late in the day and sold @ 24.97 for a profit of \$55. I am fortunate for pulling out before the closing bell, because had I waited for the earnings report after normal trading hours, my \$55 gain would have turned into a \$200+ loss. \$LZB reported negative earnings causing the stock to plummet as shown below:

Our purpose is to prove which financial investments have the best financial return in relation to time and Information Management principles.

**Standard**

UNCATEGORIZED

*5/23 – CALLED IT! \$MRVL Gains and Why it was Predictable!*

MAY 23, 2014JULIANYBANEZLEAVE A COMMENT

5/23/14

**NAILED IT!**

Back in my first blog post on Wednesday, I predicted \$MRVL to hit 15.80 today based on it's earnings report that came out Thursday after hours. Instead of taking my own advice, I placed a Sell Limit order at 15.50 to catch up on some sleep causing me to miss out on roughly 30 cents/share. BUT THAT'S OKAY. Because right now, correctly predicting what the stock does is the most important aspect we're looking at. In that regard we are 1 for 1. 100% correct. Let's keep it going baby!

TRADE(s):

5/21/14 09:42:20 EDT : Bought \$MRVL 120 shares @ 15.36

5/23/14 09:42:57 EDT : Sold \$MRVL 120 shares @ 15.50

Gain: .009% / \$16

Current Account Value: \$2000.22 (Costs \$19.99 for Sell/Buy transaction, I'll be getting this fee waived for 60 days really soon)

**\$MRVL:** (last 3 days)

**Standard**

JULIANALERTS

*5/21 – First Ever Post!! \$MRVL \$CTRN \$VEND #ttm*

MAY 22, 2014JULIANYBANEZLEAVE A COMMENT

5/21/14

Welcome to JulianStocks and to my first ever blog post! I'm very excited to see where this journey will take us so let's take it TO THE MOON!!! (#ttm)

Starting today, I will begin posting every trade I make, along with the reasoning behind it. My goal is to be as transparent as possible and to learn starting with a small account (\$2000) so that when we are working with bigger accounts later on, we are informed and experienced traders.

So let's get to it!

TRADE(s):

5/21/14 09:42:20 EDT : Bought \$MRVL 120 shares @ 15.36

DISCUSSION:

\$MRVL – Earnings report comes tomorrow (5/22/14) after market close with expected quarterly earnings to be higher than previous according to Yahoo! Finance, a bullish indicator. RBC Capital believes \$MRVL is undervalued and expected to beat and raise Q1 results. I bought 120 shares this morning and I plan to sell on Friday after the earnings report spike. Ended the day @ 15.44 so I've made a small gain of 0.5%. We'll see how this plays out, might be a good play to pick up some last minute shares tomorrow before the earnings report comes out after market hours. My prediction is that it will spike up to around 15.80 if the company reports positive earnings.

Other stocks I was watching but didn't buy:

\$CTRN – Q1 Earnings reported gains before market open, bullish indicator. My prediction was the stock to hit 19.00 and linger around that vicinity. Right out of the gates it hit 19.00 so I didn't buy because I didn't think it would go much higher than that. Ended the day at 19.76 so I was wrong with my prediction but that's okay, we're just learning.

\$VEND – During pre-market, they announced they are launching “state-of-the-art” healthy vending machines. I could care less what they really are, all this means to us is a bullish indicator. This stock rose too quickly for me to make a play and that's why I went with the option that made the most sense to me \$MRVL.

## Appendix 3: Timothy Sykes Trading Rules

1. Cut losses quickly — always rule #1, always the most difficult to abide by due to ego...when I'm wrong on a stock I HAVE to get out when it doesn't go my way.

2. Get out of trades when they don't go my way — one step up from cutting losses quickly, many people are surprised to see me take 5-10-15 cents/share in profits if the stock doesn't do EXACTLY what I expect it will within minutes, hours or days of my trade, depending on the expectations I lay out in the trade alert, based on patterns like these.

3. Understand the small losses and small gains don't get me rich, but they protect me from big losses and if I focus on taking good trades, those that do EXACTLY what I expect DO make me rich...so the key is giving myself opportunities to hit home runs, but taking singles, doubles and even strikeouts every now and then to protect my downside risk.
4. While shorting penny stocks isn't a walk in the park, nowhere else in the stock market can you make such predictable 30-70% profits in a day as exemplified by these live trades captured on video.
5. Be able to go both long and short, I know it's tough, but try not to be biased either way as some of the worst companies in the world have perfect technical breakouts and while that squeezes stubborn short sellers, agile traders are long the breakouts because they understand market mechanics...like VEND's recent breakout in the \$4s before it spiked to \$9 and VISN's PERFECT technical breakouts which led to serious Supernovas (as outlined in this DVD study guide), \$5-15 in 3 days, and \$18 to \$31 in 3 days.
6. Despite the entire world hating on penny stocks, the manipulation and the patterns it creates is predictable and so are the profits if you follow my teachings...many people didn't believe me when I turned \$12,415 into \$1.65 million in 4 years, but now that I have 2 students doing the same, and especially Tim Grittani who is beating my rate of return given that he's up from \$1,500 to \$1.41 million in 3 years, well, let's just say you can doubt me all you want — my first millionaire student even wrote this post saying I was full of BS before coming around and making \$1.2 million in just a few years now — EVERYONE comes around eventually...that's the beauty of being 100% real and transparency.
7. Keeping a detailed trading diary on Profitly is key to figuring out what trades/patterns you should do more and less of... Tim Grittani's mistakes when he first started with me was not being organized and trading too many random patterns...now he's zeroed in on what works best for him and he made \$80,000+ last week alone...an above average but rather typical week for him as of late.
8. I can profit from ANYWHERE in the world, even if my internet connection isn't that great...as I proved by making this \$70,000+ profit from a \$12 million yacht with terrible satellite internet while off the coast of the British Virgin Islands with 6 of my top trading challenge students.
9. Growing an account exponentially might sound like a daunting task, especially when the regular finance world is content to make 10-20%/year, but by focusing on trades like this, it can be accomplished faster than you imagine.
10. Ignore non-volatile, illiquid penny stocks — every company has a “great” story, focus only on actively traded stocks that are in play and moving very quickly...as I explained to Neil Cauvto HERE on FOX I just want to make 20-50% within a few hours/days, take the meat of the move, then move onto the next hot play...not sit around and day dream about a possible 100-500% win like far too many penny stock “investors” mistakenly strive for.

11. It's okay to be wrong if you cut losses quickly...I'm only right 72% of the time, but my wins more than make up for my small losses.

12. When the market is on fire with plays like it is right now, I will not sit back and play it safe...I will push it and take larger positions because of the all the opportunities and that's why I'm up 75% in the first 2 months of 2014, nearly \$400,000 in profits, matching my entire 2013 where I still made a decent 66% on my money.

13. All of these profits and success stories sound great, but it's important to remember 90-95% of traders lose money...how is that possible? It's because they trade with their gut and have no specific framework for trades...always go into a trade with a specific plan of what to get out at, both the ideal exit spot and the spot to exit the trade if it doesn't go as planned.

14. Don't believe any press releases or #s, fraud is rampant in penny stocks...the key to successful trading is just to accept that and use each stock/press release/pattern to try to grow your account and then move on, understanding that the vast majority of penny stock companies fail, go bankrupt and their stocks will go to zero over time.

15. Don't believe me? In this spoof video I mention 77 blatant penny stock pumps...pause the video when the tickers come up and look at their charts...the beautiful thing about penny stocks vs. real companies, especially those that are promoted by mailers, is that it's not a question of if the stock will crash, it's a question of when...I have no idea where stocks like Google, Facebook and GE will be months or years from now as the people trading those names are guessing how well their products and industries will do over time...that's a lot of guesswork with no real predictability and that's why penny stocks are better.

16. Even though most penny stocks will go to zero, they can spike a TON in the meantime, especially if the promotion is successful — never just short sell and then ignore the stock if it's going against you...logic and reason is often week, months or even years behind in the stock market.

17. My longterm newsletter has been on fire as of late with big wins like this, but usually I hold stocks for just 1-2 days when it's breaking out as a shorter holding period increase a stock's predictability.

18. 10-20-30% gains in a few hours or days are also predictable, but not 100-200-300% gains...gotta focus on taking as many predictable profits as possible, don't get greedy.

19. Having scanners like Stockstotrade.com can dramatically help your performance by finding great plays like it did [HERE](#) with EKSO before the stock spiked 60%

20. Lists of basic trading rules and a few videos is not enough to truly understand my proven strategy...my trading challenge is an entire curriculum designed to mentor traders and create more millionaires as that is my goal in life.

21. This multi-millionaire trader is another great mentor to have in your arsenal and his bootcamp [HERE](#) will likely create several millionaires in the coming years given that he's sharing everything he knows about the stock market.
  
22. Don't be afraid to take the day off when there are no great plays, too many traders feel the need "for action" and they waste time & money looking for it.
  
23. Don't be desperate to trade — let the best trades come to you...one of my critics once emailed me "Tim you only trade gimmes, step up and trade real stuff like Forex". He's damn right I only trade gimmes and 5 out of 6 forex traders blow up in the first 6 months, not to mention given the liquidity and leverage entice the world's richest and smartest people to trade there so the competition is stiff and small traders have a great disadvantage.
  
24. Best case scenario for penny stocks is to make a few million dollars per year...while that's good for 99.9999% of the world, Wall Street spits on the lack of upside and so the competition down here in the gutter is almost entirely scammers and suckers...there's a nice niche available for those of us who are honest and simply want to profit legally from all the shenanigans around us.
  
25. It's possible to start with just \$2,000 in your account as my trading challenge student Azimjon started with \$2,200 and has grown it to \$160,000 in just over a year as you can see all the trades [HERE](#).  
Stephen turned \$3,500 into \$100,000+ in 6 months:
  
26. Yes, great gains are possible, but don't expect them at the beginning, my students' goal at first should be to learn the patterns/strategy, grow accounts big enough to be in the right place to fully take advantage of the best plays when they come about.
  
27. For example, this \$200,000 profit in one day by my top student was the result of years of study and preparation and all those that studying and small gains paved the way for this kind of a one day gain to happen.
  
28. Trading isn't the only way to get rich, there's actually more money to be made in teaching...just as I've learned...if you teach honestly...so my affiliates get 30% commissions on anyone they refer to my newsletters, see how it can add up fast [HERE](#) and it's a great way to get money to begin trading.
  
29. You can't trade penny stocks if you have \$50 to \$300 to your name...the commissions per trade will eat you alive so save up and get at least \$2,000 ideally.
  
30. You need the right broker...here's the brokers I use, none of them are perfect, we're working with new brokers so contact me [HERE](#) with your name and contact info if you want to be kept updated about new brokers I use and recommend.

31. Understand all the risks/rewards of what's involved with trading, this is a great post on the subject.
32. If you ever get an email with a penny stock tip, expect insiders and others will be selling into your buying.
33. I LOVE shorting scams, but sometimes there's no shares available to short...the gift and curse of my strategy...when that happens I watch this and remind myself it's all part of the game.
34. Try not to buy penny stocks unless they have a great catalyst...like a breakout over past highs and ideally news like an earnings win...see 2 examples [HERE](#).
35. One of the coolest things about penny stocks is because the niche is so small, breaking news takes days or even weeks to get priced into stocks — as opposed to a company like Google reporting earnings and thousands of traders/investors analyzing every part of the news within seconds — see some fo my part-time trader students [HERE](#) and [HERE](#).
36. Don't take days off EVER from checking in on the markets though...especially in hot markets like these, even if you can check in for 30 minutes/day just to see if there's anything hot as it stinks to miss golden opportunities.
37. Most students aren't in this for the long haul — that's why I'm raising prices on these newsletters in 2 months to weed out those who just want hot picks and not to actually study and learn my strategy (so I'd jump in now and lock in current prices FOR LIFE — they fail to realize the stock market can change your life over the course of your life and the key is always keeping it int he back of your mind...not like a degenerate gambler thinking about Vegas, but just being prepared to strike when there are solid opportunities...like a sniper in waiting.
38. You don't need to sit in front of the computer 5-10 hours/day...when there's no plays, go outside and live and spend time with your family/friends.
39. To be the best trader, you must be ready to leave friends/family at all times to capture opportunities...I missed my college graduation but made nearly a semester's tuition...going to the bathroom #2 once cost me \$30,000...you have to choose how badly you want to be rich.
40. I'm not 100% disciplined, I mess up trades every now and then to spend time with my loved ones as you read [HERE](#)



41. I don't bring up the real world to make excuses for missed trades, but to help you understand how penny stock trading does take time to learn and practice so sacrifice is sometimes necessary.
42. Planning is fine, but there also needs to be execution...see these 2 trades when a good plan AND execution came together for serious profits.
43. NEVER trade stocks like Microsoft, Bank Of America & Priceline — you have no edge whatsoever and risking money without an edge is the definition of gambling.
44. What is edge? Where you have an advantage over your competition...by being meticulous and knowing about patterns like this, you can have a great edge over the competition in penny stocks.
45. Besides studying patterns, study successful traders...here's lessons from my 2 millionaire students so far:
46. I'm on a video kick, learn from these 4 multi-millionaire traders too:
47. Here's how those traders make \$200,000-\$300,000 PER DAY...it's legal, it's real and it's predictable:
48. See how my top students & I made nearly \$100,000 in one day:
49. If you're complaining about watching a few videos to master an art, you need to get your perspective changed...I learned the hard way over 14 years, my fellow millionaire traders teach to help you speed up your education process...you can learn everything we know within a few decades, but if you're diligent with your studying, you can learn it all within a few months...much better, right?
50. Whenever you feel daunted by too much studying, remember the rewards:
51. Once you get everything down, you can start being aggressive with stocks like these...but ONLY after you understand the catalysts that move stocks and the risks of being aggressive.
52. Read finance industry books listed [HERE](#) as background information.
53. Dig through the free blogs of my top students who have now each made \$1+ million [HERE](#) and [HERE](#)
54. Be humble or else the stock market will humble you.
55. Don't use leverage...I don't and this guy doesn't either and we've both grown our accounts far faster than we'd ever imagined was possible:

56. It's okay to have a small account at first, gotta get confidence and prove you can grow it before making the big bucks
57. Smaller accounts should be more aggressive with position sizing as making 10% on a \$500 position isn't as good as making 10% on a \$2,000 position.
58. NEVER go all in, no matter how good a stock looks, it's not worth risking disaster.
59. Don't believe gurus who claim to bank but don't show EVERY trade over a multi-decade career...lots of frauds out there, be careful.
60. Bull markets makes everyone feel like a genius, but most will crash and burn in other market environments, always remember the market will change...not a question of if, just when...be prepared.
61. I don't care which promoter hypes up what stock, as long as the stock goes up due to hype, manipulation and lies it's bound to come down eventually and that's a great opportunity.
62. I want pumps to go up as high as possible as that gives them more room to drop later on 😊
63. By thinking of yourself as a retired trader who only comes back into the game to trade GREAT setups, you prevent over-trading not-so-great setups.
64. This vastly underwatched DVD study guide's 7-step framework is amazingly accurate...learn the 7 steps ASAP.  
Here are some bonus lessons because I just want you to understand that to be truly successful in penny stocks and in life, you need to above and beyond what is required.
65. These are my 7 groups of haters...they're all wrong, but they don't realize it...I probly should be more mature, but it's fun to tease them...hate me all you want, but as time passes and I create more millionaires, everyone else who pretends to have stock market insight will wither and die, just like Trader Monthly magazine did.
66. Aspire to be this one day...work hard enough and achieve your goals.
67. Eat healthy and workout as an unhealthy trader has less energy and a slower thought process...health is crucial to successful trading.
68. I need to learn this rule more: — get ergonomic chairs and don't slouch as too many hours in front of a computer is REALLY bad for your neck and spine.
69. Understand celebrities don't know penny stocks, much less, finance so sometimes they get duped into promoting pump and dumps, like this guy who I took on.

70. The major financial media usually doesn't cover penny stocks because of the risk and misinformation surrounding them...that's fine...when they do cover them, they usually do it wrong aka pump up some piece of crap company...don't hate on the ignorant media, welcome their naivety for it creates opportunity.

71. Don't hate on those who literally think it's illegal to short sell penny stocks or that the pump in which they're invested is going to the moon...laugh off their ignorance and try to save them with good information..if they resist, recognize this is how the penny stock industry has always been and the truth/promoter conspiracy is tough for people to accept...like The Matrix.



## Appendix 4: TD Ameritrade Verified Trades

| Realized Gain/Loss          |                       | Unrealized Gain/Loss   |           | Unsettled Closed Positions |            | <a href="#">Expand All</a> |               | <a href="#">Edit your GainsKeeper cost basis</a> |            |  |
|-----------------------------|-----------------------|------------------------|-----------|----------------------------|------------|----------------------------|---------------|--|------------|--|
| Filter: <u>YTD</u>          | Select tax year: 2014 | from: January          | 1         | to: December               | 31         | <a href="#">View</a>       |               |  |            |  |
| Totals: Adj cost 42,019.04  |                       | Adj proceeds 41,819.18 |           | Adj gain (\$) -199.86      |            | Adj gain (%) -0.48         |               |  |            |  |
| Security                    | Trans type            | Qty                    | Open date | Adj cost                   | Close date | Adj proceeds               | Adj gain (\$) | Adj gain (%)                                     | Term       |  |
| ADVANCED CANNABIS SOLUTIONS | Sell.FIFO             | 80                     | 01/15/14  | 960.00                     | 01/15/14   | 995.18                     | 35.18         | 3.66   | Short-term |  |
| AK STL HLDG CORP            | Sell.FIFO             | 63                     | 01/28/14  | 405.71                     | 01/28/14   | 422.72                     | 17.01         | 4.19   | Short-term |  |
| AMARIN CORP PLC             | Sell.FIFO             | 1,000                  | 02/07/14  | 1,760.00                   | 02/11/14   | 1,769.96                   | 9.96          | 0.57   | Short-term |  |
| BLACKBERRY                  |                       | 150                    | ---       | 1,475.93                   | ---        | 1,495.62                   | 19.69         | 1.33   | Short-term |  |
| EKSO BIONICS HOLDINGS INC   |                       | 380                    | ---       | 2,275.00                   | ---        | 2,393.95                   | 118.95        | 5.23   | Short-term |  |
| ENVIVIO INC                 | Sell.FIFO             | 725                    | 04/02/14  | 3,018.74                   | 04/02/14   | 2,679.99                   | -338.75       | -11.22   | Short-term |  |
| FRESH HEALTHY VENDING INTER | Sell.FIFO             | 100                    | 02/19/14  | 589.00                     | 02/19/14   | 589.98                     | 0.98          | 0.17   | Short-term |  |
| FUELCELL ENERGY INC         |                       | 920                    | ---       | 2,407.15                   | ---        | 2,318.47                   | -88.68        | -3.68  | Short-term |  |
| GENERAL ELECTRIC CO         | Sell.FIFO             | 20                     | 01/06/14  | 553.20                     | 01/08/14   | 545.99                     | -7.21         | -1.30  | Short-term |  |
| GREENGRO TECHNOLOGIES INC   |                       | 1,059                  | ---       | 485.37                     | ---        | 463.56                     | -21.81        | -4.49  | Short-term |  |
| LIVEDEAL INC                |                       | 160                    | ---       | 1,522.29                   | ---        | 1,542.78                   | 20.49         | 1.35   | Short-term |  |
| MARVELL TECH GRP LTD        | Sell.FIFO             | 120                    | 05/21/14  | 1,853.19                   | 05/23/14   | 1,849.96                   | -3.23         | -0.17  | Short-term |  |
| MICROVISION INC             | Sell.FIFO             | 700                    | 03/25/14  | 1,619.92                   | 03/25/14   | 1,446.04                   | -173.88       | -10.73   | Short-term |  |
| PACIFIC ETHANOL INC         | Sell.FIFO             | 100                    | 02/27/14  | 1,439.99                   | 02/27/14   | 1,474.98                   | 34.99         | 2.43   | Short-term |  |
| PIXELWORKS INC              | Sell.FIFO             | 225                    | 03/06/14  | 1,500.73                   | 03/06/14   | 1,552.49                   | 51.76         | 3.45   | Short-term |  |
| PLUG POWER INC              |                       | 1,062                  | ---       | 3,803.37                   | ---        | 4,115.73                   | 312.36        | 8.21   | Short-term |  |
| POSITIVEID CORP             |                       | 16,180                 | ---       | 2,045.00                   | ---        | 1,784.45                   | -260.55       | -12.74   | Short-term |  |
| PRETIUM RESOURCES INC       | Sell.FIFO             | 250                    | 01/28/14  | 1,550.00                   | 01/28/14   | 1,562.47                   | 12.47         | 0.80   | Short-term |  |
| PROSPECT GLOBAL RESOURCES I |                       | 576                    | ---       | 1,778.04                   | ---        | 1,744.96                   | -33.08        | -1.86  | Short-term |  |
| RIGHTSCORP INC              |                       | 1,378                  | ---       | 979.50                     | ---        | 1,033.48                   | 53.98         | 5.51   | Short-term |  |
| RXI PHARMACEUTICALS CORP    | Sell.FIFO             | 250                    | 01/14/14  | 1,300.00                   | 01/14/14   | 1,374.97                   | 74.97         | 5.77   | Short-term |  |
| SKULLCANDY INC              | Sell.FIFO             | 113                    | 03/07/14  | 1,050.90                   | 03/07/14   | 1,052.12                   | 1.22          | 0.12   | Short-term |  |
| THERAPEUTICS MD INC         |                       | 94                     | ---       | 604.84                     | ---        | 593.13                     | -11.71        | -1.94  | Short-term |  |
| VUZIX CORP                  |                       | 200                    | ---       | 586.00                     | ---        | 627.98                     | 41.98         | 7.16   | Short-term |  |
| ZBB ENERGY CORP             | Sell.FIFO             | 1,100                  | 05/16/14  | 1,923.99                   | 05/16/14   | 1,805.40                   | -118.59       | -6.16  | Short-term |  |
| ZONED PROPERTIES            |                       | 170                    | ---       | 2,540.98                   | ---        | 2,508.96                   | -32.02        | -1.26  | Short-term |  |
| ZYNGA INC                   | Sell.FIFO             | 465                    | 01/31/14  | 1,990.20                   | 01/31/14   | 2,073.86                   | 83.66         | 4.20   | Short-term |  |
| Totals:                     |                       |                        |           | 42,019.04                  |            | 41,819.18                  | -199.86       | -0.48  |            |  |



## Investing & Information Measurement Theory (IMT): Calculated Risk

| Realized Gain/Loss  | Unrealized Gain/Loss | Unsettled Closed Positions | <a href="#">Expand All</a> | <a href="#">Edit your GainsKeeper cost basis</a> |            |              |               |              |            |  |
|---|----------------------|----------------------------|----------------------------|--|------------|--------------|---------------|--------------|------------|--|
| Filter: <u>YTD</u>   Select tax year: <input type="text" value="2014"/> from: <input type="text" value="January"/> <input type="text" value="1"/> to: <input type="text" value="December"/> <input type="text" value="31"/> <span style="background-color: green; color: white; padding: 2px 5px; font-weight: bold;">View</span> |                      |                            |                            |  |            |              |               |              |            |  |
| Totals: Adj cost 37,264.07    Adj proceeds 36,426.72    Adj gain (\$) <span style="color: red;">-837.35</span> Adj gain (%) <span style="color: red;">-2.25</span>  |                      |                            |                            |  |            |              |               |              |            |  |
| Security <span style="font-size: small;">▼</span>   | Trans type           | Qty                        | Open date                  | Adj cost   | Close date | Adj proceeds | Adj gain (\$) | Adj gain (%) | Term       |  |
| <span style="color: green;">①</span> CYTRX CORP   |                      | 900                        | ---                        | 4,467.93   | ---        | 4,263.99     | -203.94       | -4.56        | Short-term |  |
| DORAL FINANCIAL   | Sell.FIFO            | 800                        | 07/03/14                   | 7,200.00   | 07/03/14   | 6,719.93     | -480.07       | -6.67        | Short-term |  |
| ENERGY FOCUS INC  | Sell.FIFO            | 400                        | 09/11/14                   | 3,349.99   | 09/12/14   | 3,309.97     | -40.02        | -1.19        | Short-term |  |
| <span style="color: green;">①</span> GOPRO INC  |                      | 150                        | ---                        | 7,424.96   | ---        | 7,439.83     | 14.87         | 0.20         | Short-term |  |
| <span style="color: green;">①</span> GT ADVANCED TECHNOLOGIES IN  |                      | 2,000                      | ---                        | 3,169.78   | ---        | 3,179.94     | 10.16         | 0.32         | Short-term |  |
| LA Z BOY INC  | Sell.FIFO            | 130                        | 06/17/14                   | 3,192.80   | 06/17/14   | 3,248.63     | 55.83         | 1.75         | Short-term |  |
| <span style="color: green;">①</span> LAMPERED LESS LETHAL INC   |                      | 25,000                     | ---                        | 3,404.99   | ---        | 3,544.24     | 139.25        | 4.09         | Short-term |  |
| <span style="color: green;">①</span> MICROVISION INC  |                      | 500                        | ---                        | 1,058.74   | ---        | 991.21       | -67.53        | -6.38        | Short-term |  |
| <span style="color: green;">①</span> OTI ON TRACK INNOVATIONS LT  |                      | 500                        | ---                        | 2,204.94   | ---        | 2,000.97     | -203.97       | -9.25        | Short-term |  |
| <span style="color: green;">①</span> RADA ELECTRONICS INDUSTRIES  |                      | 500                        | ---                        | 1,789.94   | ---        | 1,728.01     | -61.93        | -3.46        | Short-term |  |
| <b>Totals:</b>  |                      |                            |                            | 37,264.07  |            | 36,426.72    | -837.35       | -2.25        |            |  |

**Appendix 5: Blue Chip Stock Data**

| SP 500 Case 1                               | adj close price | return |                                      |
|---|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              | 352.2           |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      | 311.5           | -12%   |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       | 379.43          |        | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     | 1264.96         | 233%   | 481%                                 |
| buy 3 mo after rec 2001 (feb 4 2002)        | 1096.22         |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  | 1293.37         | 18%    | missed returns                       |
| buy 3 mo after rec (sept 8 2009)            | 1042.73         |        | 145%                                 |
| sell 1/5/2015                               | 2044.81         | 96%    |                                      |
| sum of returns                              |                 | 336%   |                                      |
|   |                 |        |                                      |
| SP 500 Case 2                               | adj close price | return |                                      |
| buy 1990 jan 3                              | 352.2           |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      | 311.5           | -12%   | total return if invested entire time |
| buy 3 mo before rec ends 1991( Dec 3 1990)  | 327.75          |        | 481%                                 |
| sell 3 mo into recession ( june 4 2001)     | 1264.96         | 286%   |                                      |
| buy 3 mo before rec 2001 ends (sept 4 2001) | 1085.78         |        | missed returns                       |
| sell 3 mo in recession 2007 (mar 3 2008)    | 1293.37         | 19%    | -12.2%                               |
| buy 3 mo before rec ends (mar 12009)        | 683.38          |        |                                      |
| sell 1/5/2015                               | 2044.81         | 199%   |                                      |
| sum of returns                              |                 | 493%   |                                      |



| Russell 3000 Case 1                         |  | adj close price | return |                                      |
|---|--|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              |  | 196.86          |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 169.84          | -14%   |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       |  | 211.31          |        | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     |  | 697.96          | 230%   | 517%                                 |
| buy 3 mo after rec 2001 (feb 4 2002)        |  | 606.88          |        | missed returns                       |
| sell 3 mo into recession 2007 (mar 3 2008)  |  | 747.58          | 23%    | 179%                                 |
| buy 3 mo after rec (sept 8 2009)            |  | 610.92          |        |                                      |
| sell 1/5/2015                               |  | 1215.07         | 99%    |                                      |
| sum of returns                              |  |                 | 339%   |                                      |
|   |  |                 |        |                                      |
| Russell 3000 Case 2                         |  | adj close price | return |                                      |
| buy 1990 jan 3                              |  | 196.86          |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 169.84          | -14%   | total return if invested entire time |
| buy 3 mo before rec ends 1991( Dec 3 1990)  |  | 179.43          |        | 517%                                 |
| sell 3 mo into recession ( june 4 2001)     |  | 697.96          | 289%   | missed returns                       |
| buy 3 mo before rec 2001 ends (sept 4 2001) |  | 598.63          |        | 8.6%                                 |
| sell 3 mo in recession 2007 (mar 3 2008)    |  | 747.58          | 25%    |                                      |
| buy 3 mo before rec ends (mar 12 2009)      |  | 393.85          |        |                                      |
| sell 1/5/2015                               |  | 1215.07         | 209%   |                                      |
| sum of returns                              |  |                 | 509%   |                                      |



| Coca Cola Case 1                            |  | adj close price | return |                                      |
|---|--|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              |  | 2.83            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 3.2             | 13%    |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       |  | 4.19            |        | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     |  | 15.95           | 281%   | 1377%                                |
| buy 3 mo after rec 2001 (feb 4 2002)        |  | 16.09           |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  |  | 23.71           | 47%    | missed returns                       |
| buy 3 mo after rec (sept 8 2009)            |  | 21.94           |        | 945%                                 |
| sell 1/5/2015                               |  | 41.79           | 90%    |                                      |
| sum of returns                              |  |                 | 432%   |                                      |
|   |  |                 |        |                                      |
| Coca Cola Case 2                            |  | adj close price | return |                                      |
| buy 1990 jan 3                              |  | 2.83            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 3.2             | 13%    | total return if invested entire time |
| buy 3 mo before rec ends 1991( Dec 3 1990)  |  | 3.56            |        | 1377%                                |
| sell 3 mo into recession ( june 4 2001)     |  | 15.95           | 348%   |                                      |
| buy 3 mo before rec 2001 ends (sept 4 2001) |  | 17.31           |        | missed returns                       |
| sell 3 mo in recession 2007 (mar 3 2008)    |  | 23.71           | 37%    | 820.8%                               |
| buy 3 mo before rec ends (mar 12009)        |  | 16.21           |        |                                      |
| sell 1/5/2015                               |  | 41.79           | 158%   |                                      |
| sum of returns                              |  |                 | 556%   |                                      |

| Apple Case 1                                |        |        | adj close |                                      |
|---|--------|--------|-----------|--------------------------------------|
|   | price  | return |           |                                      |
| buy 1990 jan 3                              | 1.19   |        |           |                                      |
| sell 3 mo into recession ( Oct 1 1990)      | 0.89   | -25%   |           |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       | 1.48   |        |           | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     | 1.44   | -3%    |           | 8793%                                |
| buy 3 mo after rec 2001 (feb 4 2002)        | 1.62   |        |           |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  | 16.47  | 917%   |           | missed returns                       |
| buy 3 mo after rec (sept 8 2009)            | 23.2   |        |           | 7548%                                |
| sell 1/5/2015                               | 105.83 | 356%   |           |                                      |
| sum of returns                              |        | 1245%  |           |                                      |
|   |        |        |           |                                      |
| Apple Case 2                                |        |        | adj close |                                      |
|   | price  | return |           |                                      |
| buy 1990 jan 3                              | 1.19   |        |           |                                      |
| sell 3 mo into recession ( Oct 1 1990)      | 0.89   | -25%   |           |                                      |
| buy 3 mo before rec ends 1991( Dec 3 1990)  | 1.35   |        |           | total return if invested entire time |
| sell 3 mo into recession ( june 4 2001)     | 1.44   | 7%     |           | 8793%                                |
| buy 3 mo before rec 2001 ends (sept 4 2001) | 1.16   |        |           | missed returns                       |
| sell 3 mo in recession 2007 (mar 3 2008)    | 16.47  | 1320%  |           | 6670.9%                              |
| buy 3 mo before rec ends (mar 12009)        | 11.49  |        |           |                                      |
| sell 1/5/2015                               | 105.83 | 821%   |           |                                      |
| sum of returns                              |        | 2122%  |           |                                      |

| GE Case 1                                   |  | adj close price | return |                                      |
|---|--|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              |  | 2.7             |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 2.28            | -16%   |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       |  | 3.19            |        | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     |  | 30.66           | 861%   | 803%                                 |
| buy 3 mo after rec 2001 (feb 4 2002)        |  | 24.02           |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  |  | 24.67           | 3%     | missed returns                       |
| buy 3 mo after rec (sept 8 2009)            |  | 12.17           |        | -146%                                |
| sell 1/5/2015                               |  | 24.38           | 100%   |                                      |
| sum of returns                              |  |                 | 949%   |                                      |
|   |  |                 |        |                                      |
| GE Case 2                                   |  | adj close price | return |                                      |
| buy 1990 jan 3                              |  | 2.7             |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 2.28            | -16%   | total return if invested entire time |
| buy 3 mo before rec ends 1991( Dec 3 1990)  |  | 2.44            |        | 803%                                 |
| sell 3 mo into recession ( june 4 2001)     |  | 30.66           | 1157%  |                                      |
| buy 3 mo before rec 2001 ends (sept 4 2001) |  | 25.34           |        | missed returns                       |
| sell 3 mo in recession 2007 (mar 3 2008)    |  | 24.67           | -3%    | -655.0%                              |
| buy 3 mo before rec ends (mar 12009)        |  | 5.81            |        |                                      |
| sell 1/5/2015                               |  | 24.38           | 320%   |                                      |
| sum of returns                              |  |                 | 1458%  |                                      |



| Microsoft Case 1                            |  | adj close price | return |                                      |
|---|--|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              |  | 0.44            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 0.64            | 45%    |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       |  | 1.09            |        |                                      |
| sell 3 mo into recession ( June 4 2001)     |  | 26.04           | 2289%  |                                      |
| buy 3 mo after rec 2001 (feb 4 2002)        |  | 21.58           |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  |  | 23.37           | 8%     |                                      |
| buy 3 mo after rec (sept 8 2009)            |  | 21.55           |        |                                      |
| sell 1/5/2015                               |  | 46              | 113%   |                                      |
| sum of returns                              |  |                 | 2456%  |                                      |
|   |  |                 |        | total return if invested entire time |
|   |  |                 |        | 10355%                               |
|   |  |                 |        | missed returns                       |
|   |  |                 |        | 7898%                                |
|   |  |                 |        |                                      |
| Microsoft Case 2                            |  | adj close price | return |                                      |
| buy 1990 jan 3                              |  | 0.44            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 0.64            | 45%    |                                      |
| buy 3 mo before rec ends 1991( Dec 3 1990)  |  | 0.73            |        |                                      |
| sell 3 mo into recession ( june 4 2001)     |  | 26.04           | 3467%  |                                      |
| buy 3 mo before rec 2001 ends (sept 4 2001) |  | 19.71           |        |                                      |
| sell 3 mo in recession 2007 (mar 3 2008)    |  | 23.37           | 19%    |                                      |
| buy 3 mo before rec ends (mar 12009)        |  | 13.09           |        |                                      |
| sell 1/5/2015                               |  | 46              | 251%   |                                      |
| sum of returns                              |  |                 | 3783%  |                                      |
|   |  |                 |        | total return if invested entire time |
|   |  |                 |        | 10355%                               |
|   |  |                 |        | missed returns                       |
|   |  |                 |        | 6572.0%                              |

| American Express Case 1                     |  | adj close price | return |                                      |
|---|--|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              |  | 5.66            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 3.48            | -39%   |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       |  | 4.19            |        | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     |  | 29.79           | 611%   | 1495%                                |
| buy 3 mo after rec 2001 (feb 4 2002)        |  | 24.77           |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  |  | 36.75           | 48%    | missed returns                       |
| buy 3 mo after rec (sept 8 2009)            |  | 31.56           |        | 688%                                 |
| sell 1/5/2015                               |  | 90.29           | 186%   |                                      |
| sum of returns                              |  |                 | 807%   |                                      |
|   |  |                 |        |                                      |
| American Express Case 2                     |  | adj close price | return |                                      |
| buy 1990 jan 3                              |  | 5.66            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 3.48            | -39%   | total return if invested entire time |
| buy 3 mo before rec ends 1991( Dec 3 1990)  |  | 3.69            |        | 1495%                                |
| sell 3 mo into recession ( june 4 2001)     |  | 29.79           | 707%   |                                      |
| buy 3 mo before rec 2001 ends (sept 4 2001) |  | 25.2            |        | missed returns                       |
| sell 3 mo in recession 2007 (mar 3 2008)    |  | 36.75           | 46%    | -92.4%                               |
| buy 3 mo before rec ends (mar 12009)        |  | 9.28            |        |                                      |
| sell 1/5/2015                               |  | 90.29           | 873%   |                                      |
| sum of returns                              |  |                 | 1588%  |                                      |



| Bank of America Case 1                      |  | adj close price | return |                                      |
|---|--|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              |  | 5.23            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 2.48            | -53%   |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       |  | 5.21            |        | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     |  | 20.29           | 289%   | 231%                                 |
| buy 3 mo after rec 2001 (feb 4 2002)        |  | 21.22           |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  |  | 33.49           | 58%    | missed returns                       |
| buy 3 mo after rec (sept 8 2009)            |  | 16.53           |        | -68%                                 |
| sell 1/5/2015                               |  | 17.33           | 5%     |                                      |
| sum of returns                              |  |                 | 300%   |                                      |
|   |  |                 |        |                                      |
| Bank of America Case 2                      |  | adj close price | return |                                      |
| buy 1990 jan 3                              |  | 5.23            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 2.48            | -53%   | total return if invested entire time |
| buy 3 mo before rec ends 1991( Dec 3 1990)  |  | 2.96            |        | 231%                                 |
| sell 3 mo into recession ( june 4 2001)     |  | 20.29           | 585%   |                                      |
| buy 3 mo before rec 2001 ends (sept 4 2001) |  | 20.32           |        | missed returns                       |
| sell 3 mo in recession 2007 (mar 3 2008)    |  | 33.49           | 65%    | -834.5%                              |
| buy 3 mo before rec ends (mar 12009)        |  | 3.05            |        |                                      |
| sell 1/5/2015                               |  | 17.33           | 468%   |                                      |
| sum of returns                              |  |                 | 1066%  |                                      |



| Proctor and Gamble Case 1                   |  | adj close price | return |                                      |
|---|--|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              |  | 4.73            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 5.62            | 19%    |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       |  | 5.99            |        | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     |  | 22.53           | 276%   | 1789%                                |
| buy 3 mo after rec 2001 (feb 4 2002)        |  | 29.22           |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  |  | 53.14           | 82%    | missed returns                       |
| buy 3 mo after rec (sept 8 2009)            |  | 46.86           |        | 1322%                                |
| sell 1/5/2015                               |  | 89.37           | 91%    |                                      |
| sum of returns                              |  |                 | 468%   |                                      |
|   |  |                 |        |                                      |
| Proctor and Gamble Case 2                   |  | adj close price | return |                                      |
| buy 1990 jan 3                              |  | 4.73            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 5.62            | 19%    | total return if invested entire time |
| buy 3 mo before rec ends 1991( Dec 3 1990)  |  | 6.08            |        | 1789%                                |
| sell 3 mo into recession ( june 4 2001)     |  | 22.53           | 271%   |                                      |
| buy 3 mo before rec 2001 ends (sept 4 2001) |  | 26.2            |        | missed returns                       |
| sell 3 mo in recession 2007 (mar 3 2008)    |  | 53.14           | 103%   | 1261.2%                              |
| buy 3 mo before rec ends (mar 12009)        |  | 37.86           |        |                                      |
| sell 1/5/2015                               |  | 89.37           | 136%   |                                      |
| sum of returns                              |  |                 | 528%   |                                      |

| Pepsi Case 1                                |       | adj close | return |                                      |
|---|-------|-----------|--------|--------------------------------------|
|   | price |           |        |                                      |
| buy 1990 jan 3                              | 5.81  |           |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      | 6.89  |           | 19%    |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       | 8.8   |           |        | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     | 32.31 |           | 267%   | 1503%                                |
| buy 3 mo after rec 2001 (feb 4 2002)        | 35.48 |           |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  | 56.57 |           | 59%    | missed returns                       |
| buy 3 mo after rec (sept 8 2009)            | 50.02 |           |        | 1071%                                |
| sell 1/5/2015                               | 93.11 |           | 86%    |                                      |
| sum of returns                              |       |           | 431%   |                                      |
|   |       |           |        |                                      |
| Pepsi Case 2                                |       | adj close | return |                                      |
|   | price |           |        |                                      |
| buy 1990 jan 3                              | 5.81  |           |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      | 6.89  |           | 19%    |                                      |
| buy 3 mo before rec ends 1991( Dec 3 1990)  | 7.57  |           |        | total return if invested entire time |
| sell 3 mo into recession ( june 4 2001)     | 32.31 |           | 327%   | 1503%                                |
| buy 3 mo before rec 2001 ends (sept 4 2001) | 34.53 |           |        |                                      |
| sell 3 mo in recession 2007 (mar 3 2008)    | 56.57 |           | 64%    | missed returns                       |
| buy 3 mo before rec ends (mar 12009)        | 39.42 |           |        | 957.1%                               |
| sell 1/5/2015                               | 93.11 |           | 136%   |                                      |
| sum of returns                              |       |           | 545%   |                                      |

| Ford Case 1                                 |  | adj close price | return |                                      |
|---|--|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              |  | 3.74            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 2.86            | -24%   |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       |  | 3.29            |        | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     |  | 18.18           | 453%   | 291%                                 |
| buy 3 mo after rec 2001 (feb 4 2002)        |  | 11.2            |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  |  | 5.3             | -53%   | missed returns                       |
| buy 3 mo after rec (sept 8 2009)            |  | 6.72            |        | -203%                                |
| sell 1/5/2015                               |  | 14.61           | 117%   |                                      |
| sum of returns                              |  |                 | 494%   |                                      |
|   |  |                 |        |                                      |
| Ford Case 2                                 |  | adj close price | return |                                      |
| buy 1990 jan 3                              |  | 3.74            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 2.86            | -24%   | total return if invested entire time |
| buy 3 mo before rec ends 1991( Dec 3 1990)  |  | 2.48            |        | 291%                                 |
| sell 3 mo into recession ( june 4 2001)     |  | 18.18           | 633%   |                                      |
| buy 3 mo before rec 2001 ends (sept 4 2001) |  | 14.38           |        | missed returns                       |
| sell 3 mo in recession 2007 (mar 3 2008)    |  | 5.3             | -63%   | -1092.3%                             |
| buy 3 mo before rec ends (mar 12009)        |  | 1.56            |        |                                      |
| sell 1/5/2015                               |  | 14.61           | 837%   |                                      |
| sum of returns                              |  |                 | 1383%  |                                      |

| McDonalds Case 1                            | adj close price | return |                                      |
|---|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              | 5.35            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      | 4.4             | -18%   |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       | 5.58            |        | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     | 20.59           | 269%   | 1609%                                |
| buy 3 mo after rec 2001 (feb 4 2002)        | 18.84           |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  | 41.76           | 122%   | missed returns                       |
| buy 3 mo after rec (sept 8 2009)            | 45.58           |        | 1136%                                |
| sell 1/5/2015                               | 91.44           | 101%   |                                      |
| sum of returns                              |                 | 474%   |                                      |
|   |                 |        |                                      |
| McDonalds Case 2                            | adj close price | return |                                      |
| buy 1990 jan 3                              | 5.35            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      | 4.4             | -18%   |                                      |
| buy 3 mo before rec ends 1991( Dec 3 1990)  | 4.92            |        | total return if invested entire time |
| sell 3 mo into recession ( june 4 2001)     | 20.59           | 318%   | 1609%                                |
| buy 3 mo before rec 2001 ends (sept 4 2001) | 20.95           |        |                                      |
| sell 3 mo in recession 2007 (mar 3 2008)    | 41.76           | 99%    | missed returns                       |
| buy 3 mo before rec ends (mar 12009)        | 42.94           |        | 1096.1%                              |
| sell 1/5/2015                               | 91.44           | 113%   |                                      |
| sum of returns                              |                 | 513%   |                                      |

| Berkshire Hathaway Case 1                   |  | adj close price | return |                                      |
|---|--|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              |  | 8625            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 5900            | -32%   |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       |  | 8450            |        |                                      |
| sell 3 mo into recession ( June 4 2001)     |  | 67800           | 702%   |                                      |
| buy 3 mo after rec 2001 (feb 4 2002)        |  | 73500           |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  |  | 133805          | 82%    |                                      |
| buy 3 mo after rec (sept 8 2009)            |  | 99000           |        |                                      |
| sell 1/5/2015                               |  | 220980          | 123%   |                                      |
| sum of returns                              |  |                 | 876%   |                                      |
|   |  |                 |        | total return if invested entire time |
|   |  |                 |        | 2462%                                |
|   |  |                 |        | missed returns                       |
|   |  |                 |        | 1586%                                |
| Berkshire Hathaway Case 2                   |  | adj close price | return |                                      |
| buy 1990 jan 3                              |  | 8625            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 5900            | -32%   |                                      |
| buy 3 mo before rec ends 1991( Dec 3 1990)  |  | 6575            |        |                                      |
| sell 3 mo into recession ( june 4 2001)     |  | 67800           | 931%   |                                      |
| buy 3 mo before rec 2001 ends (sept 4 2001) |  | 68700           |        |                                      |
| sell 3 mo in recession 2007 (mar 3 2008)    |  | 133805          | 95%    |                                      |
| buy 3 mo before rec ends (mar 12009)        |  | 73195           |        |                                      |
| sell 1/5/2015                               |  | 220980          | 202%   |                                      |
| sum of returns                              |  |                 | 1196%  |                                      |
|   |  |                 |        | total return if invested entire time |
|   |  |                 |        | 2462%                                |
|   |  |                 |        | missed returns                       |
|   |  |                 |        | 1265.8%                              |



| Walmart Case 1                              |  | adj close price | return |                                      |
|---|--|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              |  | 4.28            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 4.96            | 16%    |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       |  | 7.74            |        | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     |  | 40.15           | 419%   | 1889%                                |
| buy 3 mo after rec 2001 (feb 4 2002)        |  | 46.75           |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  |  | 42.19           | -10%   | missed returns                       |
| buy 3 mo after rec (sept 8 2009)            |  | 44.35           |        | 1372%                                |
| sell 1/5/2015                               |  | 85.14           | 92%    |                                      |
| sum of returns                              |  |                 | 517%   |                                      |
|   |  |                 |        |                                      |
| Walmart Case 2                              |  | adj close price | return |                                      |
| buy 1990 jan 3                              |  | 4.28            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 4.96            | 16%    | total return if invested entire time |
| buy 3 mo before rec ends 1991( Dec 3 1990)  |  | 5.82            |        | 1889%                                |
| sell 3 mo into recession ( june 4 2001)     |  | 40.15           | 590%   |                                      |
| buy 3 mo before rec 2001 ends (sept 4 2001) |  | 36.43           |        | missed returns                       |
| sell 3 mo in recession 2007 (mar 3 2008)    |  | 42.19           | 16%    | 1165.3%                              |
| buy 3 mo before rec ends (mar 12009)        |  | 42.07           |        |                                      |
| sell 1/5/2015                               |  | 85.14           | 102%   |                                      |
| sum of returns                              |  |                 | 724%   |                                      |



| AT T Case 1                                 | adj close price | return |                                      |
|---|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              | 5.07            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      | 4.74            | -7%    |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       | 4.53            |        | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     | 20.79           | 359%   | 552%                                 |
| buy 3 mo after rec 2001 (feb 4 2002)        | 18.21           |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  | 23.69           | 30%    | missed returns                       |
| buy 3 mo after rec (sept 8 2009)            | 19.65           |        | 102%                                 |
| sell 1/5/2015                               | 33.08           | 68%    |                                      |
| sum of returns                              |                 | 451%   |                                      |
|   |                 |        |                                      |
| AT T Case 2                                 | adj close price | return |                                      |
| buy 1990 jan 3                              | 5.07            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      | 4.74            | -7%    | total return if invested entire time |
| buy 3 mo before rec ends 1991( Dec 3 1990)  | 5               |        | 552%                                 |
| sell 3 mo into recession ( june 4 2001)     | 20.79           | 316%   |                                      |
| buy 3 mo before rec 2001 ends (sept 4 2001) | 20.7            |        | missed returns                       |
| sell 3 mo in recession 2007 (mar 3 2008)    | 23.69           | 14%    | 123.4%                               |
| buy 3 mo before rec ends (mar 12009)        | 16.11           |        |                                      |
| sell 1/5/2015                               | 33.08           | 105%   |                                      |
| sum of returns                              |                 | 429%   |                                      |



| Disney Case 1                               |  | adj close price | return |                                      |
|---|--|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              |  | 7.4             |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 5.99            | -19%   |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       |  | 7.43            |        | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     |  | 26.24           | 253%   | 1148%                                |
| buy 3 mo after rec 2001 (feb 4 2002)        |  | 19.5            |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  |  | 28              | 44%    | missed returns                       |
| buy 3 mo after rec (sept 8 2009)            |  | 26.26           |        | 619%                                 |
| sell 1/5/2015                               |  | 92.38           | 252%   |                                      |
| sum of returns                              |  |                 | 529%   |                                      |
|   |  |                 |        |                                      |
| Disney Case 2                               |  | adj close price | return |                                      |
| buy 1990 jan 3                              |  | 7.4             |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 5.99            | -19%   | total return if invested entire time |
| buy 3 mo before rec ends 1991( Dec 3 1990)  |  | 6.69            |        | 1148%                                |
| sell 3 mo into recession ( june 4 2001)     |  | 26.24           | 292%   |                                      |
| buy 3 mo before rec 2001 ends (sept 4 2001) |  | 19.86           |        | missed returns                       |
| sell 3 mo in recession 2007 (mar 3 2008)    |  | 28              | 41%    | 302.8%                               |
| buy 3 mo before rec ends (mar 12009)        |  | 14.63           |        |                                      |
| sell 1/5/2015                               |  | 92.38           | 531%   |                                      |
| sum of returns                              |  |                 | 846%   |                                      |

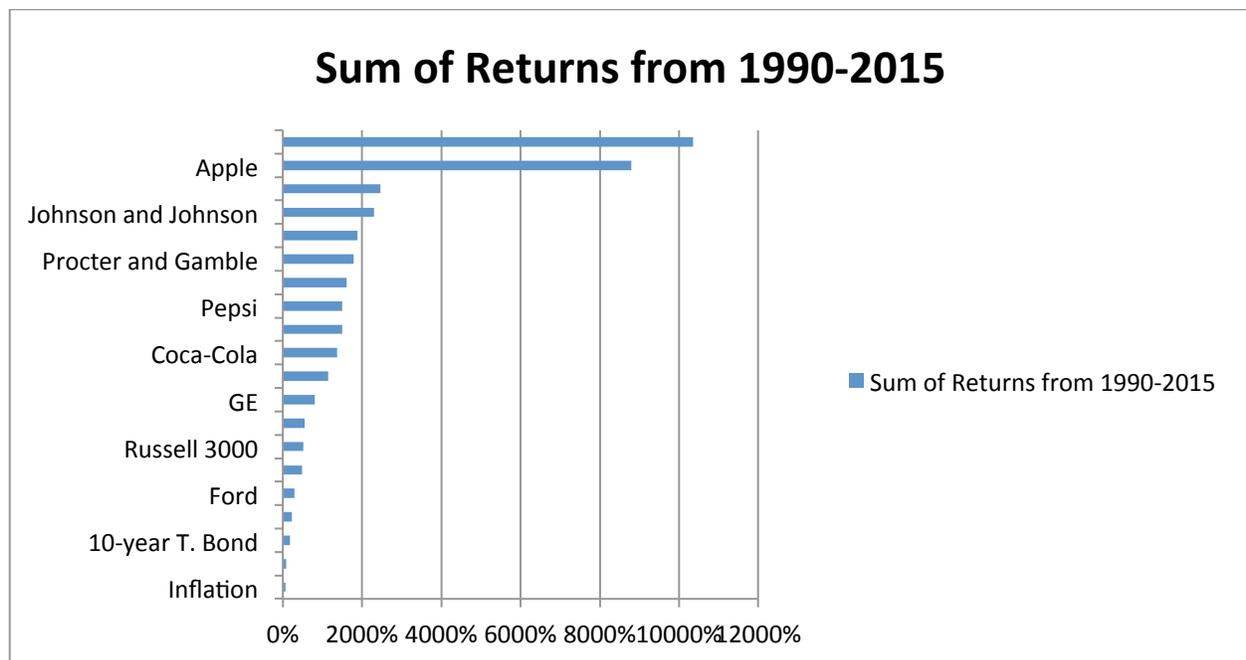


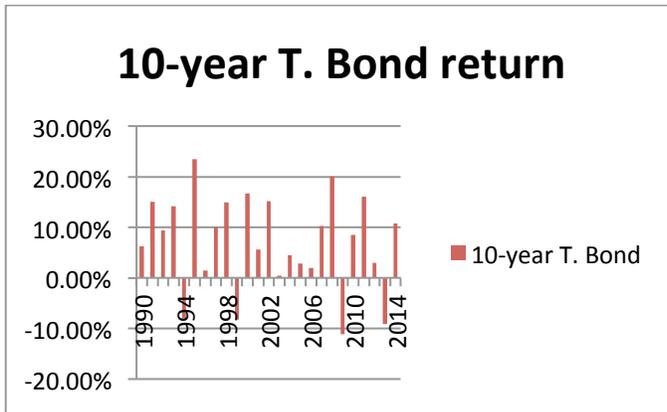
| Johnson and Johnson Case 1                  |  | adj close price | return |                                      |
|---|--|-----------------|--------|--------------------------------------|
| buy 1990 jan 3                              |  | 4.28            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 4.77            | 11%    |                                      |
| buy 3 mo after rec 1991 (june 3 1991)       |  | 6.41            |        | total return if invested entire time |
| sell 3 mo into recession ( June 4 2001)     |  | 35.67           | 456%   | 2308%                                |
| buy 3 mo after rec 2001 (feb 4 2002)        |  | 40.03           |        |                                      |
| sell 3 mo into recession 2007 (mar 3 2008)  |  | 49.08           | 23%    | missed returns                       |
| buy 3 mo after rec (sept 8 2009)            |  | 50.52           |        | 1714%                                |
| sell 1/5/2015                               |  | 103.07          | 104%   |                                      |
| sum of returns                              |  |                 | 595%   |                                      |
|   |  |                 |        |                                      |
| Johnson and Johnson Case 2                  |  | adj close price | return |                                      |
| buy 1990 jan 3                              |  | 4.28            |        |                                      |
| sell 3 mo into recession ( Oct 1 1990)      |  | 4.77            | 11%    | total return if invested entire time |
| buy 3 mo before rec ends 1991( Dec 3 1990)  |  | 5.18            |        | 2308%                                |
| sell 3 mo into recession ( june 4 2001)     |  | 35.67           | 589%   |                                      |
| buy 3 mo before rec 2001 ends (sept 4 2001) |  | 39.1            |        | missed returns                       |
| sell 3 mo in recession 2007 (mar 3 2008)    |  | 49.08           | 26%    | 1521.3%                              |
| buy 3 mo before rec ends (mar 12009)        |  | 39.44           |        |                                      |
| sell 1/5/2015                               |  | 103.07          | 161%   |                                      |
| sum of returns                              |  |                 | 787%   |                                      |



| <b>Year</b> | <b>6<br/>Month<br/>CD<br/>Interest<br/>Rate</b> |
|-------------|---|
| 1990        | 7.50%   |
| 1991        | 4.50%   |
| 1992        | 3.10%   |
| 1993        | 3.20%   |
| 1994        | 5.25%   |
| 1995        | 5.50%   |
| 1996        | 5.30%   |
| 1997        | 5.70%   |
| 1998        | 5.25%   |
| 1999        | 6.00%   |
| 2000        | 6.75%   |
| 2001        | 3.20%   |
| 2002        | 2.20%   |
| 2003        | 1.25%   |
| 2004        | 2.20%   |
| 2005        | 4.10%   |
| 2006        | 5.25%   |
| 2007        | 4.75%   |
| 2008        | 3.50%   |
| 2009        | 0.67%   |
| 2010        | 0.75%   |
| 2011        | 1.10%   |
| 2012        | 0.63%   |
| 2013        | 0.89%   |
| 2014        | 1.01%   |

| Investment Vehical              | Sum of Returns from 1990-2015 | Missed returns case 1 | missed returns case 2 |
|---------------------------------|-------------------------------|-----------------------|-----------------------|
| <b>Inflation</b>                | 66%                           |                       |                       |
| <b>6 Month CD Interest Rate</b> | 90%                           |                       |                       |
| <b>10-year T. Bond</b>          | 174%                          |                       |                       |
| <b>Bank of America</b>          | 231%                          | -68%                  | -835%                 |
| <b>Ford</b>                     | 291%                          | -203%                 | -1092%                |
| <b>S and P 500</b>              | 481%                          | 145%                  | -12%                  |
| <b>Russell 3000</b>             | 517%                          | 179%                  | 9%                    |
| <b>AT T</b>                     | 552%                          | 102%                  | 123%                  |
| <b>GE</b>                       | 803%                          | -146%                 | -655%                 |
| <b>Disney</b>                   | 1148%                         | 619%                  | 303%                  |
| <b>Coca-Cola</b>                | 1377%                         | 945%                  | 821%                  |
| <b>American Express</b>         | 1495%                         | 7548%                 | 6671%                 |
| <b>Pepsi</b>                    | 1503%                         | 1322%                 | 1261%                 |
| <b>McDonalds</b>                | 1609%                         | 1136%                 | 1096%                 |
| <b>Procter and Gamble</b>       | 1789%                         | 1071%                 | 957%                  |
| <b>Wallmart</b>                 | 1889%                         | 1372%                 | 1165%                 |
| <b>Johnson and Johnson</b>      | 2308%                         | 1714%                 | 1521%                 |
| <b>Berkshire Hathaway</b>       | 2462%                         | 1586%                 | 1266%                 |
| <b>Apple</b>                    | 8793%                         | 688%                  | -92%                  |
| <b>Microsoft</b>                | 10355%                        | 7898%                 | 6572%                 |





| <i>Year</i> | <i>10-year T. Bond</i> |
|-------------|------------------------|
| 1990        | 6.24%                  |
| 1991        | 15.00%                 |
| 1992        | 9.36%                  |
| 1993        | 14.21%                 |
| 1994        | -8.04%                 |
| 1995        | 23.48%                 |
| 1996        | 1.43%                  |
| 1997        | 9.94%                  |
| 1998        | 14.92%                 |
| 1999        | -8.25%                 |
| 2000        | 16.66%                 |
| 2001        | 5.57%                  |
| 2002        | 15.12%                 |
| 2003        | 0.38%                  |
| 2004        | 4.49%                  |
| 2005        | 2.87%                  |
| 2006        | 1.96%                  |
| 2007        | 10.21%                 |
| 2008        | 20.10%                 |
| 2009        | -11.12%                |
| 2010        | 8.46%                  |
| 2011        | 16.04%                 |
| 2012        | 2.97%                  |
| 2013        | -9.10%                 |
| 2014        | 10.75%                 |

25 yr  
Sum 173.65%

