

OHC014I

Project Number: ZAZ-I004 -49

UNDERSTANDING THE STOCK MARKET: AN EXPERIENTIAL STUDY

An Interactive Qualifying Project Report

Submitted to the Faculty

of the

WORCESTER POLYTECHNIC INSTITUTE

in partial fulfillment of the requirements for the

Degree of Bachelor of Science

by



JiEon Kim



Lian Chen



Miguel Angel Fan

Date: March 4, 2004



Professor Amy Z Zeng, Advisor

## Table of Contents

<b>Table of Contents</b> .....	<b>i</b>
<b>List of Figures</b> .....	<b>iii</b>
<b>List of Tables</b> .....	<b>iii</b>
<b>Abstract</b> .....	<b>1</b>
<b>Chapter1: Introduction</b> .....	<b>2</b>
<b>Chapter 2: Literature Review</b> .....	<b>4</b>
2.1    What Are Stocks and How They Are Trade? .....	4
2.1.1 Different Types of Stocks .....	4
2.1.2 Different Types of Stock Exchange .....	5
2.1.3 How to Read a Stock Table and Quote .....	6
2.2    U.S. Stock Market vs. Oversea Stock Market .....	8
2.2.1 U.S. Stock Indices:.....	8
2.2.2 World Stock Indices.....	9
2.2.3 Value vs. Growth .....	10
2.2.4 Average Stock Market Return .....	11
2.3    Stock Market Strategies .....	12
2.3.1 Stock Market Behavior .....	12
2.3.2 Market Timing .....	13
2.3.3 Contrarian Investing Philosophy.....	14
2.4    Risk in Stock Market and Investor Behaviors .....	17
2.4.1 What is Risk.....	18
2.4.2 Investor Behaviors: Risk Averse, Risk Seeking and Risk Neutral .....	19
2.5    Advancement in Technology Changing the Stock Market .....	21
2.5.1 Historic Review .....	21
2.5.2 The Impact of IT On Stock Exchange .....	22
2.6    The Social Impact of Stock Market Simulation Websites and Software.....	24
2.6.1 The Virtual Stock Exchange Website (VSE).....	24
2.6.2 Stock-Trak Portfolio Simulations Program .....	25
2.6.3 Various Stock Market Simulation Games for the Youngsters.....	26
2.6.4 Various Stock Market Simulation Programs for Adults.....	27
2.6.5 The Social Impact of Stock Simulation Software.....	28
<b>Chapter 3: Methodology</b> .....	<b>30</b>
3.1    Introduction.....	30
3.2    Description of the Experiential Study.....	34
<b>Chapter 4: A Six-Week Experiential Study by Lian</b> .....	<b>36</b>
4.1    Lian’s Week 1 Trading Diary (Jan. 19 – Jan. 24, 2004).....	36
4.2    Lian’s Week 2 Trading Diary (Jan. 26 – Jan. 30, 2004).....	41
4.3    Lian’s Week 3 Trading Diary (Feb. 2 – Feb.6, 2004).....	44
4.4    Lian’s Week 4 Trading Diary (Feb. 9 – Feb.13, 2004).....	47
4.5    Lian’s Week 5 Trading Diary (Feb. 16 – Feb.20, 2004).....	49
4.6    Lian’s Week 6 Trading Diary (Feb. 23 – Feb. 27, 2004).....	51
<b>Chapter 5: A Six-Week Experiential Study by Grace</b> .....	<b>55</b>
5.1    Grace’s Week 1 Trading Diary (Jan. 21 – Jan. 23, 2004).....	55

5.2	Grace’s Week 2 Trading Diary (Jan. 26 – Jan. 30, 2004).....	57
5.3	Grace’s Week 3 Trading Diary (Feb. 2 – Feb. 6, 2004) .....	60
5.4	Grace’s Week 4 Trading Diary (Feb. 9 – Feb. 13, 2004) .....	63
5.5	Grace’s Week 5 Trading Diary (Feb. 17 – Feb. 20, 2004) .....	66
5.6	Grace’s Week 6 Trading Diary (Feb. 23 – Feb. 27, 2004) .....	69
<b>Chapter 6: A Six-Week Experiential Study by Miguel .....</b>		<b>72</b>
6.1	Miguel’s Week 1 Portfolio Report (Jan. 19 – Jan. 24, 2004) .....	72
6.2	Miguel’s Week 2 Portfolio Report (Jan. 26 – Jan. 30, 2004) .....	74
6.3	Miguel’s Week 3 Portfolio Report (Feb. 2 – Feb.6, 2004).....	76
6.4	Miguel’s Week 4 Trading Diary (Feb. 9 – Feb.13, 2004) .....	78
6.5	Miguel’s Week 5 Trading Diary (Feb. 16 – Feb.20, 2004) .....	80
6.6	Miguel’s Week 6 Trading Diary (Feb. 23 – Feb. 27, 2004) .....	82
<b>Chapter 7: Summaries and Conclusions.....</b>		<b>84</b>
7.1	Investment Methods and Strategies Comparison:.....	84
7.2	Concluding Remarks.....	86
<b>Appendix A-1: 30 Companies Currently Compose DJIA .....</b>		<b>89</b>
<b>Appendix A-2: Top NYSE Stocks By Dollar Value .....</b>		<b>90</b>
<b>Glossary .....</b>		<b>91</b>
<b>Reference .....</b>		<b>93</b>

## List of Figures

### Chapter 2 Figures

Figure 2-1: Stock Table and Quote .....	6
Figure 2-2: Major U.S. Indices .....	9
Figure 2-3: Major Oversea Indices .....	9
Figure 2-4: Growth Stock vs. Value Stock .....	10
Figure 2-5: Significant Result Obtained by Contrarian Investing .....	16
Figure 2-6: Characteristics of Most Expensive Companies.....	16
Figure 2-7: Characteristics of Least Expensive Companies .....	17
Figure 2-8: Stock Simulation Software and Websites for Youngsters .....	27
Figure 2-9: Stock Simulation Software and Websites for Adults.....	27

### Chapter 3 Figures

Figure 3-1: The Account Login Page of VSE.....	30
Figure 3-2: Main Menu Screen of VSE .....	31
Figure 3-3: Competition Rules Screen of VSE.....	31
Figure 3-4: The Portfolio Holdings Screen of VSE.....	32
Figure 3-5: The Stock Trading Page of VSE.....	32
Figure 3-6: The Investor Research Screen of VSE.....	33
Figure 3-7: The News Update Screen of VSE.....	34

### Chapter 4 Figures

Figure 4-1: 5-Day Trading Volumes and Share Values for AMZ.....	37
Figure 4-2: 5-day Graphic for AMPB.....	38

## List of Tables

### Chapter 4 Tables

Table 4-1: Week-1 Stock Trading.....	39
Table 4-2: Week-1 Portfolio Holdings .....	39
Table 4-3: Week-2 Stock Trading.....	42
Table 4-4: Week-2 Portfolio Holdings .....	43
Table 4-5: Week-3 Stock Trading.....	45
Table 4-6: Week-3 Portfolio Holdings .....	45
Table 4-7: Week-4 Stock Trading.....	48
Table 4-8: Week-4 Portfolio Holdings .....	48
Table 4-9: Week-5 Portfolio Holdings .....	49
Table 4-10: Week-6 Stock Trading.....	53

### Chapter 5 Tables

Table 5-1: Week 1 Portfolio Holding .....	56
Table 5-2: Week 2 Stock Trading.....	57
Table 5-3: Week 2 Portfolio Holding .....	58
Table 5-4: Week 3 Stock Trading.....	60

Table 5-5: Week 3 Portfolio Holding .....	61
Table 5-6: Week 4 Stock Trading.....	64
Table 5-7: Week 4 Portfolio Holding .....	65
Table 5-8: Week 5 Stock Order .....	66
Table 5-9: Week 5 Stock Trading.....	67
Table 5-10: Week 5 Portfolio Holding .....	67
Table 5-11: Week 5 Stock Trading.....	69
Table 5-12: Week 5 Stock Holding .....	70

## **Chapter 6 Tables**

Table 6-1: week 1 portfolio Holdings.....	73
Table 6-2: Week 2 Stock Trading.....	74
Table 6-3: Week 2 Portfolio Holdings.....	75
Table 6-4: Week 3 Portfolio Holdings.....	76
Table 6-5: Week 4 Portfolio Holdings.....	78
Table 6-6: Week 5 Portfolio Holdings.....	80
Table 6-7: Week 5 stock Trading.....	81
Table 6-8: Week 6 Stock Trading.....	82

## **Abstract**

This Interactive Qualifying Project studies several aspects of the stock market through literature review and a series of simulation-based experiential studies. In particular, we first review what stocks are and how they are traded, the major U.S. indices and overseas indices, and a few commonly used investment strategies. We then discuss how the development of technology positively and negatively impacts the stock market. Finally, we compare a number of commonly used investment strategies and identify key factors affecting people's behaviors based on our experiential study.

## **Chapter1: Introduction**

Our greatest motivation for this project originated from the significance of the stock market in U.S. economy. It interested us because through the theory and experiential study, we would be well prepared for the future investment. In this project, we focused on the understanding of the stock market.

### **Motivation**

Stock market has been one of the major impacts on the United States economy. Since nearly three years ago, stock prices began their slide. Recently Bulls pointed to the length of past recession to suggest that recovery was just around the corner, while bears said dividends were too low and stock prices were too high. As newcomers, we were interested in analyzing how the stock market was operated, especially at the turning point. At the same time, we were looking forward to gaining knowledge and strategies toward how to invest in the stock market in the future.

### **Objective**

The primary goal of this project was to understand the social and economic impact of stock market through extensive literature review and an experiential study. This goal was achieved through the following steps:

1. To become acquainted with the history of the U.S stock market, its contribution to the society, its major characteristics, as well as how it was categorized.
2. To find out how to distinguish domestic stocks from international stocks.
3. To compare how the companies function relating to their stocks.

4. To discuss how technology influenced and changed the stock market from both positive and negative aspects.
5. To do an experiential study using Virtual Stock Exchange website. Through simulation investment, we would practice how to choose stocks, how to decide when to purchase and sell a specific stock, as well as various strategies toward different situations.

### **Work plan**

In A term, 2003, our group emphasized on the literature review. We researched various resources regarding the stock market in general. Our literature review began with stock market's history, how to distinguish between oversea and domestic stocks, continue through stock market strategies, and ended with technologies that help investors trade online and make decisions. In C term, 2004, we focused on the experiential study by investing some fantasy dollars in Virtual Stock Exchange, a stock market simulation program.

### **Methodologies**

Our main methodology was experiential study. After extensive researches on the stock market background knowledge in the A term, we did some stock market simulation investment in Virtual Stock Exchange program in the C term, 2004. Each of us bought a set of stocks and then compared our stock performance by using different strategies. Case study, statistical analysis, and data collection were achieved through the experiential study.



## **Chapter 2: Literature Review**

### **2.1 What Are Stocks and How They Are Trade?**

Stock is the ownership of a company's assets and profits. A dividend on a share of stock means that share's portion of the company's profit. What is stock market? Stock market is also known as a stock exchange. It is a place where organized trading of stocks and bonds between buyers and sellers meet and decide on a price. For instance, the New York Stock Exchange (NYSE) or National Association of Securities Dealers Automated Quotation System (NASDAQ) is one of the stock market's most important exchanges in the United States.

A company issues stocks and people buy them when the company wants to grow and build more factories or develop new products. As an outcome, it requires more money. Instead getting a loan, which owes money, sharing the profits can raise money without going into debt. Then where can people find sellers and buyers? People can go to a stock market that is to facilitate the exchange of securities between buyers and sellers.

#### **2.1.1 Different Types of Stocks**

Depending on stock, shareholders have voting rights in the management of the corporation. There are two main types of stocks, common stock and preferred stock. Common stock usually has voting rights and a claim on a portion of profits. Preferred stock has no voting rights (varying on the company) and investors are usually guaranteed a fixed dividend forever. However, in event of liquidation, shares of common stocks will not receive money until the bondholders and preferred shareholders are paid.

Even if there are two main forms of stock, companies also customize different classes of stock any way they want. The reason for this stock is as a company has voting power to remain with a certain group.

### **2.1.2 Different Types of Stock Exchange**

Most stocks are traded on exchanges. Some exchanges are physical locations where transactions are carried out on a trading floor. The purpose of a stock market is to facilitate the exchange of securities between buyers and sellers. In the United States, there are three major exchanges, which are: New York Stock Exchange (NYSE); National Association of Securities Dealers Automated Quotation System (NASDAQ); American Stock Exchange (AMEX).

#### **New York Stock Exchange (NYSE)**

In 1792, twenty-four New York City stockbrokers and merchants founded the NYSE over 200 years ago with the signing of the Buttonwood Agreement. The NYSE is the first type of exchange that the trading is done face to face on the trading floor using an auction method (see Table 2 in appendix).

#### **National Association of Securities Dealers Automated Quotation System (Nasdaq)**

Nasdaq is the second type of exchange, which is the virtual sort, also known as an over-the-counter (OTC) market. Nasdaq is done through a computer and telecommunications network of dealers.

#### **Amex**

AMEX is the third largest exchange in the United States. It used to be alternative to the NYSE, however, in 1998, NASD bought the AMEX since then, most of the trading belongs to small-cap stocks and derivatives.

There are many stock exchanges located in every country. American market s are the largest and most important. Two other main financial centers are located in London (London Stock Exchange), and Hong Kong (Hong Kong Stock Exchange).

The stock exchange is concentrated on all the buying and selling taken place in one place. This allows the value of a stock to be known in every second of the day. Based on the news from the company, media reports and other various factors originated from the investors and stock brokers, the price of a stock waves.

### 2.1.3 How to Read a Stock Table and Quote

The previous sections have explained what stock is, how stock works, and what shareholders' right is. In this section, we will talk about how to read a stock table and quote. No matter how much information you have or how stock market works, without understanding a stock table, all these information will be helpless for future. Figure 2-1 shows an example of stock table and what each column means:

52W high	52W low	Stock	Ticker	Div	Yield %	P/E	Vol 00s	High	Low	Close	Net chg
\$45.39	19.75	ResMed	RMD			52.5	3831	42.00	39.51	41.50	-1.90
11.63	3.55	Revlon A	REV				162	6.09	5.90	6.09	+0.12
77.25	55.13	RioTinto	RTP	2.30	3.2		168	72.75	71.84	72.74	+0.03
31.31	16.63	RitchieBr	RBA			20.9	15	24.49	24.29	24.49	-0.01
8.44	1.75	RiteAid	RAD				31028	4.50	4.20	4.31	+0.21
\$38.63	18.81	RobtHalf	RHI			26.5	6517	27.15	26.50	26.50	+0.14
51.25	27.69	Rockwell	ROK	1.02	2.1	14.5	6412	47.99	47.00	47.54	+0.24

Column 1
Column 2
Column 3
Column 4
Column 5
Column 6
Column 7
Column 8
Column 9
Column 10
Column 11
Column 12

Figure 2-1: Stock Table and Quote

**Columns 1 & 2: 52-Week Hi and Low** - These are the highest and lowest prices at which a stock has traded over the previous 52 weeks (one year). This typically does not include the previous day's trading.

**Column 3: Company Name & Type of Stock** - This column lists the name of the company. If there are no special symbols or letters following the name, it is common stock. Different symbols imply different classes of shares. For example, "pf" means the shares are preferred stock.

**Column 4: Ticker Symbol** - This is the unique alphabetic name which identifies the stock. If you watch any financial TV program, you should have seen the ticker tape move across the screen, quoting the latest prices alongside this symbol. If you are looking for stock quotes online, you always search for a company by the ticker symbol.

**Column 5: Dividend Per Share** - This indicates the annual dividend payment per share. If this space is blank, the company does not currently pay out dividends.

**Column 6: Dividend Yield** - The percentage return on the dividend. It is calculated as annual dividends per share divided by price per share.

**Column 7: Price/Earning Ratio** - This is calculated by dividing the current stock price by earnings per share from the last four quarters.

**Column 8: Trading Volume** - This figure shows the total number of shares traded for the day, listed in the unit of hundred. Therefore, if you want to get the actual number traded, add "00" to the end of the number listed.

**Column 9 & 10: Day High & Low** - This indicates the price range at which the stock has traded at throughout the day. In other words, these are the maximum and the minimum prices that people have paid for the stock.

**Column 11: Close** - The "close" is the last trading price recorded when the market closed on the day. If the closing price is up or down more than 5% than the previous day's close, the entire listing for that stock is bold-faced. However, you are not guaranteed to

get this price if you buy the stock on the next day. Since the price is constantly changing, even after the exchange is closed for the day. The close is merely an indicator of past performance and except in extreme circumstances serves as a ballpark of what you should expect to pay.

**Column 12: Net Change** - This is the dollar value change in the stock price from the previous day's closing price. When you hear about a stock being "up for the day," it means the net change was positive.

## **2.2 U.S. Stock Market vs. Oversea Stock Market**

Every investor should know that he shouldn't put all his eggs in one basket. This sums up to be one word, which is the most fundamental piece of investment advice: diversity. Investors are highly recommended to have some exposure to international stocks. Before we get to the oversea stock indices, let's first take a look at some of the U.S. stock indices.

### **2.2.1 U.S. Stock Indices:**

Three of the most widely used U.S. market indexes are: the Dow Jones Industrial Average, the S&P 500, and the NASDAQ Composite are calculated in very different ways. An understanding of the formulas for each index, as well as its constituent companies, is particularly important for index fund investors, but also for anybody who follows the markets.

Indices	Description
Dow Jones Industrial Average	The Dow Jones Industrial, Transportation and Utilities Averages are maintained and reviewed by editors of The Wall Street Journal. The Dow Jones Indexes site provides information, calculation methodology and data regarding all of Dow Jones' indices.
Standard & Poors 500	The S & P 500 is an index of 500 of the largest U.S. stock companies. It represents every know sector including the banks, the insurance companies, manufacturing, and telecommunications companies. Similar indices include the S&P MidCap 400, S&P SmallCap 600, and S&P 1000.
NASDAQ Composite	The Nasdaq Composite Index measures all listed Nasdaq domestic and international based common type stocks. Today the Nasdaq Composite includes over 4,000 companies, making it one of the most widely followed and quoted major market indices.

**Figure 2-2: Major U.S. Indices**

### 2.2.2 World Stock Indices

Besides of the U.S., a lot of countries have their own stock exchanges. Some stock indexes are as influential as Dow Jones Industrial Average, Standard & Poors 500 and NASDAQ Composite. They are:

Indices	Description
S&P Canadian Indices	The S&P/TSX 60 Index is a large capitalization index for Canadian equity markets. The S&P/TSX Composite Index comprises approximately 71% of market capitalization for Canadian-based, Toronto Stock Exchange listed companies.
Nikkei Net Interactive	The Nikkei Stock Average is Japan's most widely watched index of stock market activity. Nikkei Net is a major source of business information for top executives and decision-makers in Japan. Its flagship newspaper, The Nihon Keizai Shimbun, is the world's largest-selling business daily.

FTSE UK Indices	Designed to represent the performance of UK companies, it provides investors with a comprehensive and complementary set of indices, which measure the performance of the major capital and industry segments of the UK market. FTSE UK Indices include FTSE100, FTSE 250, FTSE 350, FTSE 350 Industry Sectors, FTSE SmallCap, and FTSE All-Share.
German Deutscher Aktienindex (DAX)	The German DAX consists of 30 selected blue chip stocks, and is the most widely followed index on the Deutsche Borse, the German securities market.
France CAC 40 Share Price Index	The CAC 40 Index is an index for derivative products and is based on 40 of the largest 100 companies in France.
Hang Seng Index	Provides comprehensive benchmarks to gauge the performance of the Hong Kong Stock Market, including the most widely used index in Hong Kong, the Hang Seng Index.

**Figure 2-3: Major Oversea Indices**

### 2.2.3 Value vs. Growth

One rule holds for the U.S. domestic stocks is that growth stocks outperform value stocks. Growth stocks are those stocks that have low ratios of book value to market value. Value stocks are those have high ratio of book value to market value. Let's take a look at the features of growth and value stocks:

<b>Growth Stocks</b>	<b>Value Stocks</b>
<ul style="list-style-type: none"> <li>• Higher Priced than broader market</li> </ul>	<ul style="list-style-type: none"> <li>• Lower priced than broader market</li> </ul>
<ul style="list-style-type: none"> <li>• High earnings growth records</li> </ul>	<ul style="list-style-type: none"> <li>• Currently priced below similar companies in industry</li> </ul>
<ul style="list-style-type: none"> <li>• Less sensitive to economic conditions than broader market</li> </ul>	<ul style="list-style-type: none"> <li>• Carry more risk than broader market</li> </ul>

**Figure 2-4: Growth Stock vs. Value Stocks**

The intuition for U.S. portfolios is that value stocks have low prices relative to their books value. Thus the market feels they are relatively distressed. And the intuition is the opposite for growth stocks. However, this rule doesn't fit for international stocks. For

international portfolios, the reverse is true: value stocks reap higher returns than growth stocks in markets around the world. According to the research of Eugene F. Fama, who is a professor at the University of Chicago Graduate School of Business and the Yale School of Management, the reason is “people think because these are good companies, their stock returns will be high. But in fact, their prices are pegged so high by the market that their returns actually tend to be low.” (Eugene, 1997) According to professor Fama’s research, value stocks outperformed growth stock in 12 of 13 developed countries from 1975 to 1995.

#### **2.2.4 Average Stock Market Return**

Average stock market return defines the rate that measures an annual return of a stock market. This rate is often used to help plan for pension funding, retirement planning, and more generally as a benchmark for investment and savings decisions. There are two facts required to explain average stock market return in the set of large international stocks: a market risk factor and a value-growth risk factor. The market risk factor is the return on an international market portfolio of stocks; and the value-growth factor is the difference between the return on an international portfolio of high book-to-market stocks and the return on an international portfolio of low book-to-market stocks. To explain average stock returns, three measures of risk are needed: to distinguish the sensitivity to the market return, to distinguish the risks in small stock versus big stocks, and to distinguish the risks in value stock versus growth stocks. These measures hold up pretty well in both domestic portfolios and the six major international stock indices mentioned in chapter 2.2.1 and chapter 2.2.2. There exist two types of average stock market returns: the average short-run return and the average long-run return. Though the average short-run



return varies aggressively in different time periods, the average long-run return on either domestic or international stock market has been very stable in the past century. With the current interest rate, the average long-run return on stock market maintains around 11% annually. Therefore, the investors can easily achieve the average stock market return in the long run. Thus investors and company owners do not have to accept below average returns in the long run in any of their stock market investments.

## **2.3 Stock Market Strategies**

The stock market is now the pillar that supports the economy presently as a large portion of business revolves around the stock market. However, it is hard to predict the way the stock market flows, there are strategies you can use, but they are never a hundred percent successful. Fortunately, you can still increase your odds with the strategies at hand.

### **2.3.1 Stock Market Behavior**

There are some factors that contribute to the stock market's instable and dynamic nature. There are factors that make the market trend go up. First fact is when Interest rates go down. This is when Alan Greenspan, the head of the Federal Reserve (The Fed), announces a cut in interest rates. The second fact is when the economy grows, when unemployment rate drops. The third fact is when the market's value increases, it happens when there is an anticipation of the value of a number of companies. The following are the factors that cause the market trend go down. The first is when interest rate goes down, which is opposite of the first one which is when Alan Greenspan announces an

increase in interest rates. The second is when the economy stops growing, which is when unemployment rate increases and people stop buying goods. One example would be the events of September 11, which greatly decrease consumers' spending. The last fact would be when the market's value decreases, which happens in the anticipated decrease in the profits of many companies. Basically, the stock market and the economy are interrelated as one increases the other will follow and vice-versa. The stock market is associated with how the society interacts with it and furthermore makes it rise and fall.

### **2.3.2 Market Timing**

Market sector is a group of stocks representing companies in the same line of business like health care and technology, etc. It goes up when its value increases due to an increase in profits, when lower expenses or higher sales occur. On the other hand, the market sector goes down when a sector value decreases due to a decrease in the profits of companies, when higher expenses and lower sales occur.

Since the stock market is so unpredictable, experts try to create strategies that offer the best results. One of the main points is to diversify your stocks because there are some stocks that do well during a down market and some that don't. This is why it is important to diversify so that one falling stock does not impact your portfolio that much. The second main point is that when your stocks fall, it is important not to sell and the major rule is to hold the stock until you gain no matter what. Their major point is that if you sell out too quickly it might not be good because at times, decreases in stocks are just short term. If you sell your stock at first, then you lose some money, if you sell your stock during the middle when it is still falling, you will double your loss and so forth. The key is to hold on to the stocks until it rebounds. The third strategy is to stay focused

in the stock markets and be in every activity, which means to not miss anything. Because the value gained from being in the best 10 months of the stock market will cover and even more you will gain profit just within those 10 months from investing and making losses before. Timing is a very important thing and some stocks rise and fall depends on the season.

### **2.3.3 Contrarian Investing Philosophy**

The contrarian Investing Philosophy, is another strategy that is focused on the turning around of stocks that are currently low, meaning they are not the highlight and tend to be ignored by the public. The contrarian uses patience and long term planning to better their odds.

The positive aspect about owning an undervalued stock is the fact that because it is underrated, there would be a lower risk in seeking better long term results. These stocks tend to be less vulnerable to price declines in bear markets, because their expected performances are not that high. And if the market trend does go up, they might yield a larger return since they are under-priced.

One of the most difficult aspects of the contrarian strategy is the strategy's execution. As investors, there is always doubt when we are investing with our own money. The money that we are investing is everything we worked for and saved for. And most importantly, an investor who makes a bad decision will suffer the loss of their money or capital.

To ensure the success of the contrarian investing strategy, it is required for the investor to go against instinct and beliefs in the general market. The execution is the hardest part, because going against the crowd is not an easy thing to do. This is why

most investors do not do this and why they do not get superior performance. Most of us are influenced by societal pressures. It makes it so difficult to get out of the ordinary action because it is not backed by other people.

Another important aspect is that the contrarian strategy takes time, discipline and patience as stated before. Most investors will give up on contrarian investing in the short run because there is no immediate gain and even if there is a gain it will be in the long run. The most common investors are always looking for a so-called “investing home run”, a sudden moment with a lot of gains but that does not happen any more.

Findings show that companies, in which the market has high expectations, have consistently performed the worst. To evaluate the value of a company, forecasts must be made with extreme precision. This is very difficult because there is no 100% guarantee. Investors and analysts also have confidence and optimism and in this case, it is not a good combination. One easy proof is when you follow a latest hot stock and follow it until a surprise negative earning occurs, and this occurs every single time. However, findings also show that companies in which the market has low expectations, seems to have consistently perform the best. Which is why low expectations is what the strategy is based on.

Below is a study by David Dreman and Eric Lufkin, looked at the largest 1,500 publicly traded companies over 27 years. The below table shows the significant results obtain by using this strategy over the long term.

<b>Contrarian Investing</b>		
	Low P/E	\$708,000
	Low P/BV	\$685,000
	Low P/CF	\$572,000

	Low P/D	\$415,000
\$10,000 Initial Investment	Market Return	\$289,000
1970		1996

**Figure 2-5: Significant Result Obtained by Contrarian Investing**

A low P/E ratio (price relative to earnings) is often thought of as a typical Contrarian strategy. This is a straightforward strategy that saves investors from over managing their own portfolio. This strategy does not allow a lot of work to be effective and it is important to be at the right place and make changes when required at your own portfolio. Low P/E stocks also tend to have higher dividend returns, which helps maintain the value of the stock through bear markets, which was discussed earlier. Facts that are also important are the low P/CE (Price relative to cash flow), P/BV (price relative to book value), and P/D (Price relative to dividend) ratios.

<b>Most expensive (i.e. companies to avoid)</b>
• High P/E
• High P/CF
• High P/BV
• High P/D

**Figure 2-6: Characteristics of Most Expensive Companies**

<b>Least Expensive (i.e. companies to investigate)</b>
• Low P/E
• Low P/CF
• Low P/BV
• Low P/D

**Figure 2-7: Characteristics of Least Expensive Companies**

In general, positive earning surprises have a positive benefit to low P/E stocks and generally a neutral influence on high P/E stocks. On the other hand, negative earning surprises have less effect on low P/E stocks than on highflying P/E stocks. Because the expectations are very high for high P/E stocks, earnings disappointments are inevitable and it becomes only a matter of 'when'. This can be seen easily in the latest technology boom in companies with outrageous valuations. One example is the stock CMGI that was soaring high last couple years and fell into a deep decline in the last couple years as well. Expectations of low P/E stocks are already low; therefore, a negative surprise has little effect.

## **2.4 Risk in Stock Market and Investor Behaviors**

Whether it is investing, driving, or just walking down the street, you expose yourself to risk. Your personality and lifestyle plays a big part on how much risk you are comfortable to take on. Risk causes the stock market to move up and down like a roller coaster. If you invest your money on certain stocks and have trouble sleeping at nights, you are probably taking on too much risk.

### **2.4.1 What Is Risk?**

According to the definition in The Investopedia Dictionary, "risk is the chance that an investment's actual return will be different than expected". It includes the possibility of losing part or all of the original investment. When investing in stocks, bonds, or any investment instrument, there is a lot more risk than you would think. Let us take a look at two basic types of risks, systematic risk and unsystematic risk. Systematic risk is the risk that influences a large number of assets. An example is political events. It is virtually impossible to protect an investor against this type of risk. Unsystematic Risk, also referred to as specific risk, is the risk that affects a very small number of assets. An example of it is the news that affects a specific stock such as a sudden strike by employees (The Investopedia Dictionary).

It is important for the investor to decide how much risk he can take on while having a tight sleep at night. Low risk stands for low level of uncertainty, and high risk stands for high level of uncertainty. Between the desires for the lowest possible risk for the highest possible returns, there is an equilibrium the investor should look for. One fact that the investor should always keep in mind is that low risk is associated with low potential return, while high risk is associated with high potential return.

People have different attitudes towards investment risk based on their tolerance. Through the study of investors' behaviors, psychologists categorize people into three types depending on their tolerance to risk. They are risk averse, risk tolerance and risk neutral investors.

### **2.4.2 Investor Behaviors: Risk Averse, Risk Seeking and Risk Neutral**

Risk-averse people are those who invest conservatively. They prefer sure things and want to avoid risk unless adequately compensated for it. If two investments have the same expected return, they prefer the one with lower risk. (Investor Words) Risk-averse people look for security; they weight the worst outcome more heavily.

Risk-averse investor believes that achieving reasonably high returns in portfolio does not have to accept a very high risk of capital loss. Strategies are developed to help investors avoid the catastrophic losses that decimate their returns while increasing their success rate in identifying good stocks. If you consider yourself conservative on investment, there are certain principles recommended for you to follow. The rule of thumb is to buy companies with positive free cash flow. Cash flow is what investing is all about, and ultimately, a company's market value will reflect its ability to generate cash. Free cash flow is the cash left over for the benefit of shareholders. If every company in your portfolio generates cash above and beyond what it needs to maintain, the value of your portfolio as a whole should grow over time. Rule number two is to find companies with demonstrated earnings power. Look for companies that have demonstrated the ability to generate consistent cash flow year in and year out through booms, recessions, and everything in between. Their consistencies do not have to be perfectly smooth since every business has good years and bad years. The bad years should not be too horrible. Avoid the stocks of promising young companies that have not been around long enough to have a track record. The third important rule for risk-averse investors is to watch the debt. The higher debt a company owns, the riskier its stock is. It is tough for a company to go bankrupt if it produces free cash flow and has no debt. However, there is a place in the market for investors who prefer high risk and take on risk



intelligently. The market will reward them with returns that justify the assumed risk. Being the opposite of risk-averse investors, these individuals are considered as risk seeking or sometimes also called risk loving investors. Attracted to risk, the risk seeking investors are willing to accept above-average risk in pursuit of above-average returns. They pick stocks of rapidly growing companies, and sometimes employ buying on margin, options trading and arbitrage (Investor Words). Therefore, this type of investors is considered as aggressive. Most people become risk seeking when their choices are between negative consequences.

Between risk aversion and risk seeking there is a state called risk neutrality. Investors are risk neutral if they are indifferent to risk. They will neither pay to avoid it nor to take it. In a nutshell, risk does not affect their decisions (Investor Words). To make the explanation clearer, let us take a look at an example. If a risk neutral investor were asked to choose between a guaranteed \$2,000 and a 50 – 50 chance of getting either \$1,000 or \$3000, he wouldn't really care which option to chose. Because to him, both options have the same expected values.

All investors tend to make the right decisions on their investment. In an ideal scenario, investors would buy and sell investments without emotion. However, no one can make decisions in a vacuum. By trying to understand the behavioral factors that can influence their judgment, investors may make better decisions. It would be interesting to observe and analyze our own personalities and behavioral habits through the stock market simulation experience in the upcoming C term.

## **2.5 Advancement In Technology Changing the Stock Market**

In today's electronic technology booming era, everyone has easy access to the Internet. What are the advantages that the Internet can provide companies and shareholders for stock trading? This section will review historical aspect of IT and also explain how stock exchange grows from these advantages.

### **2.5.1 Historic Review**

The British Industrial Revolution (1760-1850) was the first industrial revolution and the second industrial revolution (1890-1930) was the rise of electricity, the chemical industry, and combustion engine. The third industrial revolution is the information technology (IT).

A new technology or product developed by a single entrepreneur that is hard to get funds. Either he reaches the initial public offering (IPO) stage or is acquired by a listed firm; it takes time for the innovator to add value to the stock market. In the late 1960's, the old technologies had lost their momentum or would give way to IT. Another hand, IT innovators boosted the stock market's value only in the 1980's.

There are three reasons why the IT revolution favors new firms. First of all, the manager of the old firm may not know what the new technology offers or may be unable to implement it (i.e. MS-DOS). The second reason is that an old firm is tied to current practices, and it may not convert to new technology. However, a new firm will easily to adopt new methods immediately. Third reason is that management and workers in an old firm may resist new technology because it devalues their skills.

In 1970's Micro Instrumentation Telemetry System introduced a personal computer. It did not do much, but it spawned a market for computer hobbyists. Computer

networking marked the dawn of the information superhighway. Base on a technological revolution cause a dramatic wave of entry and exit in markets. Large firms were more likely to exit in the 1970's or started to merge. First, some old firms may enter into the new era b acquiring innovators. Second, the process of standardization mentioned above may lead to mergers among the new interests. Third, vested interests that prevent a firm from adopting new methods invite a takeover. The number of mergers did rise in the 1980's and remains high.

From previous information of stock market, the project is going to focus on how stock market relate to economy and also the society. Ninety percent of previous information is from an online source. By using a computer networking system, we will be able to find detail information of the stock exchange.

### **2.5.2 The Impact of IT on Stock Exchange**

Due to the birth of information technology (IT), many companies are able to interact with investors and their shareholders will talk back to their companies. Companies share their shareholders communications to an annual report, press releases delivered with financial statements, and annual meeting. Shareholders are also able to ask questions about corporate performance or new developments. Now it is possible for investors to sell shares of under performing companies even if investors become large and frequently acquiring significant ownership positions in major public companies.

Presently, investor relations are a high priority for many public companies. Since shareholders are able to check up-to-date on business development through the Internet,

now the policy statements issued by major institutional shareholders. By using Internet, shareholders become powerful and companies are forced to respond.

Presently, most stock exchanges are through the computer system (Internet) and also are able to release important news for certain company's recent activities.

Comparing to NYSE, NASDAQ market does not operate as an auction market. NASDAQ market is expected to compete with each other to post the best quotes by using electronic system. It is level II quote (i.e. NASDAQ) that shows all the bid offers, ask offers, size of each offers, and making the offers in real time (dealers are offering different price of stocks on same time). About 1985 average people had access to level II quote through the Small Order Execution System (SOES) of the NASDAQ. In May 2000, the NASDAQ announced to reduce quotes fee to \$10 per month because non-professional users can get level II quote for \$50 per month. For instance, in the course of a significant: detailed and immediate disclosure of all the developments is required by law, share ownership becomes concentrated in the hand of sophisticated investors, shareholder value generally becomes the more immediate focus of board decisions and then stock prices react instantly to every new development. Shareholders have better information sooner, the market moves more quickly.

For four weeks researching, we find out stock market trading has been more active than 1996. As we found out all the information from the Internet, stockholders are able to open up the account through the Internet. By online accounts, stockholders are able to get more and faster information and faster transaction. Information technology and the Internet are due in large part to reduced transactions costs: borrowers can complete forms

online and the processing is highly automated. As more investors access the network, they will increasingly demand greater participation from public companies.

From technology revolution, bigger and more investors are listed in stock exchange and more support from investors. In 1896, the Dow index contained 12 of the largest public companies in the United States. Today, the DJIA contain 30 of the largest and most influential companies in the United States. Since 1970's, the NASDAQ composite index, Wilshire 5000 total market index and the Russell 2000 index has created.

## **2.6 The Social Impact of Stock Market Simulation Websites and Software**

There is absolutely nothing that can match learning through experience. After a novice has learned basic knowledge of the stock indices and stock market, he would be eager to devote himself into the investment. However, before investing real money into the market, it is wise to do some simulation investment first. This is how the stock market simulation websites and software come into birth in the first place. The existing simulation websites and software categorize their potential customers into two types, young students and adults. The social impacts these websites and software have on their clients are worth analyzing.

### **2.6.1 The Virtual Stock Exchange Website (VSE)**

As a service of CBS Market Watch program, the Virtual Stock Exchange is the largest independent stock market simulation program on the Internet. VSE is an entirely free site that better suited for children like high school and college students. It stimulates learning about economics, finance, and the American economic system. Allowing

participants to create both individual and competition portfolios, VSE entrusts the investors with the right to specify the hypothetical initial cash balance for each account. Through VSE, teachers can reinforce the students' skills and concepts on curriculums as mathematics, economics, life skill, social studies, business education and IT technology. VSE provides basic information about personal portfolio balance, all the stocks that the investor is holding, transaction history, as well as the news updated for the companies, stock movement charts and company's ticker symbol search. Real time stock price movements keep game play relevant and exciting.

Virtual Stock Exchange simulates the real investing environment and includes almost all the information included in the real stock market. It opens doors to the investment world to the young minds. However, all the information displayed on VSE have twenty minutes time lag. This is one huge difference between VSE and the real U.S. stock market. Besides of this, VSE is a hilarious way to teach students serious skills and concepts that they will use for the rest of their lives. As students buy and sell, they will learn the ways of the U.S. stock market and economy.

### **2.6.2 Stock-Trak Portfolio Simulations Program**

Stock-Trak is a very comprehensive financial market simulation program that can be downloaded from the Internet. Its available features include: stocks, options, futures, funds, bonds, and international stocks. Stock-Trak aims at adults such as college students, who are required to use Stock-Trak for a class, as well as any individual who desires to learn about investing or paper trade. Investment clubs and brokers in training are also its potential customers. It provides the methods to practice investment strategies,

test theories, practice day trading, learn about various markets, and compete against classmates, friends, and colleagues. Distinct from the charge-free Virtual Stock Exchange website, Stock-Trak provides service in a reasonable price, which is \$18.95 per account. The participant is able to start trading in his account once he completes the registration. Every investor must have the ticker symbols to trade stocks, options, and mutual funds. Ticker symbols can be obtained from the Stock-Trak web page at the “Symbol Lookup” links. Yet, ticker symbols are not required to trade futures, bonds, spot contracts, or international stocks. Daily report and latest news will be sent to the user’s email account in a time fashion.

### 2.6.3 Various Stock Market Simulation Games for the Youngsters

Besides VSE, there are various stock market simulation programs on the market. They can be easily accessed from the online websites, by downloading from Internet or be purchased directly from the retail stores. Through playing them, children can learn skills that will influence their financial future in bold and powerful ways. A national study recently found that students who engage in a stock market competition score higher on a finance-knowledge survey than students who complete an entire course in money management. (The Stock Market Game) Following is a list of stock market simulation games suggested for children:

<b>Game and Reference</b>	<b>Description</b>
Money Games ( <a href="http://www.younginvestor.com">www.younginvestor.com</a> )  FleetKids BuyLo SellHi Game ( <a href="http://www.fleetkids.com">www.fleetkids.com</a> )	An animated Web site with simple money games. It's a great way to get warmed up for a stock market simulation game. This Web site's multimedia elements make it great for young children. Kids search for clues in the news, follow the market, play

<p>Virtual Stock Exchange (<a href="http://www.virtualstockexchange.com">www.virtualstockexchange.com</a>)</p> <p>The Stock Market Game (<a href="http://www.smgww.org">www.smgww.org</a>)</p> <p>StocksQuest InvestSmart Stock Game (<a href="http://stocksquest.thinkquest.org/C001759/">http://stocksquest.thinkquest.org/C001759/</a>)</p>	<p>some hunches, and make money grow as much as possible.</p> <p>The largest independent stock market simulation program. It is better suited for older children.</p> <p>This is an original and premier educational program to stimulate learning about economics, finance, and the U.S. economic system. It aims for students in grades 4 -12.</p> <p>Game players can take the Basics course offered in this game and learn the techniques to research companies in order to decide which stocks to buy or sell.</p>
--	---

**Figure 2-8: Stock Simulation Software and Websites for Youngsters**

#### 2.6.4 Various Stock Market Simulation Programs for Adults

<b>Game and Reference</b>	<b>Description</b>
<p>MainXed Teacher Stock Market Tournament (<a href="http://www.education-world.com">www.education-world.com</a>)</p> <p>Yahoo Investment Challenge (<a href="http://contest.finance.yahoo.com">http://contest.finance.yahoo.com</a>)</p> <p>Marketocracy (<a href="http://www.jarketocracy.com">www.jarketocracy.com</a>)</p>	<p>An online stock market simulation game offered to Business Professionals such as teachers. The tournament will give the teachers a chance to compete against one another, to win prizes, and to learn the stock market game. Its purpose is to prepare the teachers to guide their students.</p> <p>Simple and straightforward stock market simulation game. It takes trading to a level that everyone can understand and enjoy. Beginners will find it very easy to use while experts can still enjoy the fast paced world of investment.</p> <p>An investment simulation game that gives the user \$1,000,000 fantasy dollars to create his own Marketocracy Fund. The winner of each game is then hired by Marketocracy.com as a professional money manager. Very interesting for seasoned investors who think that they have what it takes to become a professional.</p>



<p>Darwin: Survival of the Fittest (<a href="http://Darwin.ameritrade.com">http://Darwin.ameritrade.com</a>)</p>	<p>This simulation is created by Ameritrade. Register at the website and they will send user a free copy of Darwin: Survival of the Fittest software. From there the user can challenge friends or enemies over a LAN or the Internet to an options trading.</p>
--	--

**Figure 2-9: Stock Simulation Software and Websites for Adults**

An inexperienced investor is vulnerable to rapid, hard-to-predict changes in stock market conditions. Gaining knowledge and experience puts him in the driver's seat. Above are the popular stock market simulation software and websites for adults and professionals. With practice in these programs, an investor will be better prepared knowledge-wise and confidence-wise for the stock markets. It will strengthen his financial literacy and will minimize the risks in his investment returns. A famous golfer once said: "The harder I practice, the luckier I get." Wealthy people are just like every other person: except they practice wealth-building habits in a daily basis.

### **2.6.5 The Social Impact of Stock Simulation Software**

Playing is one of the natural instincts of children. If a kid can learn new things while playing a fun game, he would be very willing to do that often. Meanwhile, the information way gives him deep impressions. Stock market simulation games offer this type of fun and exciting environment.

Adults have stronger mathematic background than children and therefore have broader knowledge towards financial industry. However, they are also more sensitive to relate new occurring events to the economy. Unlike children who aim to accumulate knowledge toward their future adaptation in the financial industry, most adults are eager to use what they have leaned from the simulation programs for real life profit making

promptly. Thus the simulation software and websites designed for adult users are more comprehensive and realistic to the U.S. stock market.

# Chapter 3: Methodology

## 3.1 Introduction

The major methodology of this IQP project will be experiential study. During the six weeks in C term, 2004, we are going to simulate stock market investment on Virtual Stock Exchange website. As we have introduced in chapter 2.6.1, VSE is one of the most popular free stock market simulation website on the Internet. It provides basic information about portfolio balancing, stock transactions, stock movement charts and updated news for the companies and the market. Its simple design and stock and mutual fund trading only features are perfect for us as novices. Following are some basic features provided by this website:

Login feature: allows the user to sign in with registered username and password.

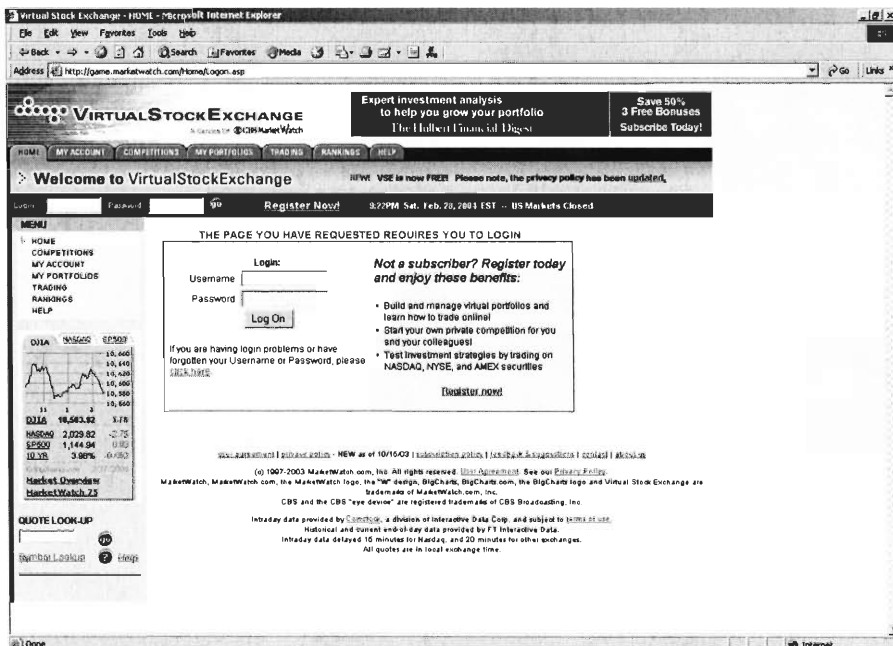


Figure 3-1: The Account Login Page of VSE

Main menu feature: provide links to trading rules and regulations, personal information, portfolios and ranking, and frequently asked questions.

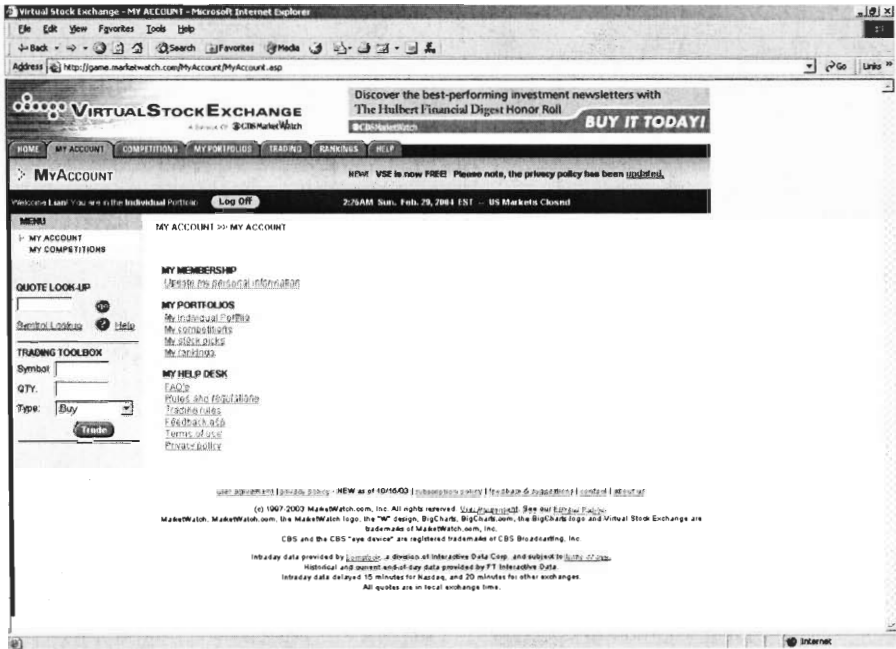


Figure 3-2: Main Menu Screen of VSE

Competition rules feature: allow you to set the rules for your competition.

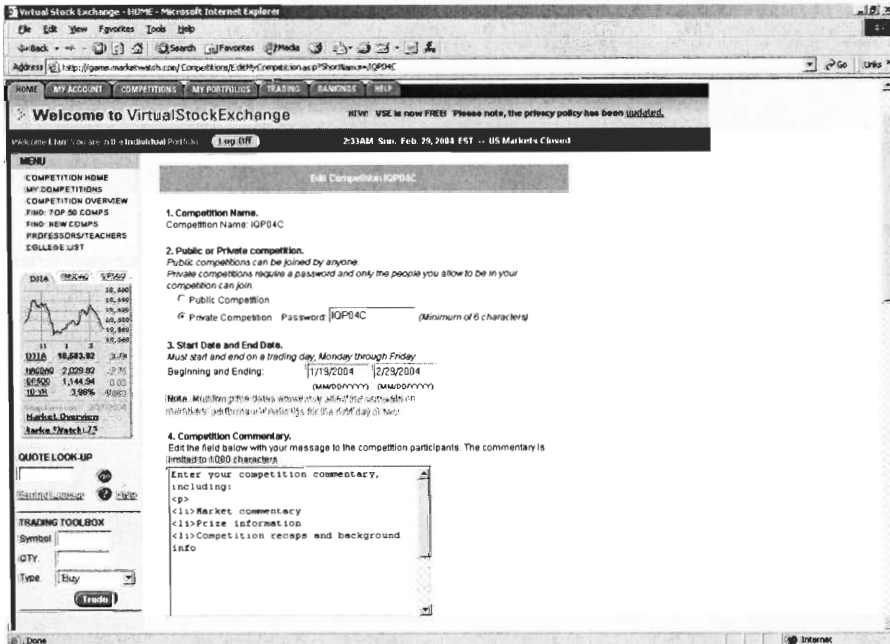


Figure3-3: Competition Rules Screen for VSE

Portfolio holdings: displays all the stocks that are in holding currently and the account balance.

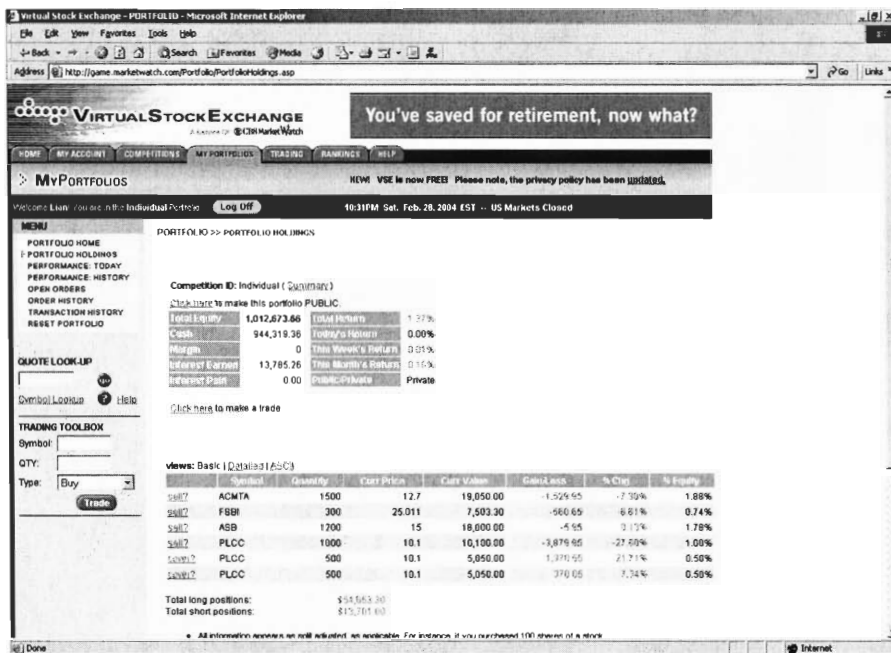
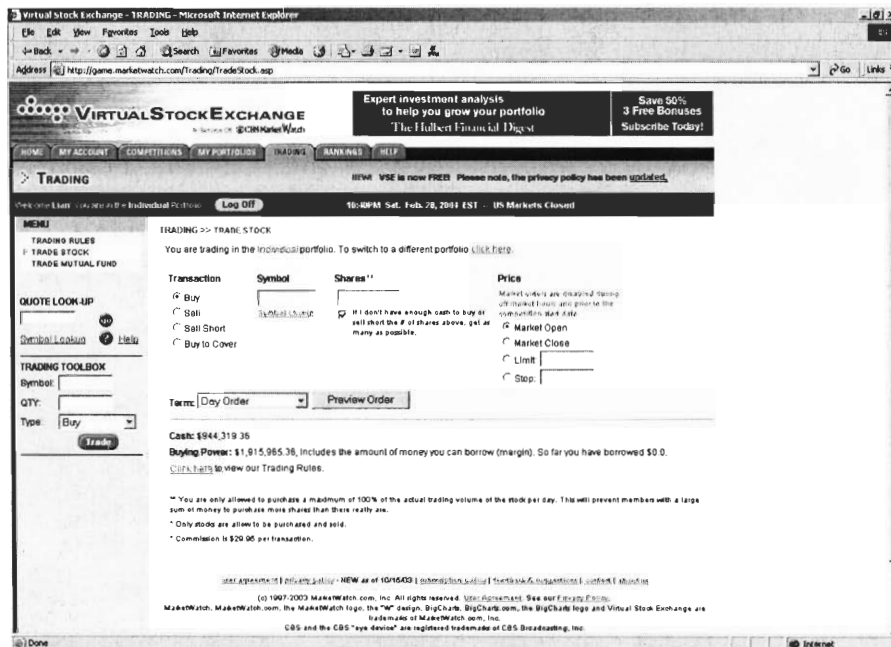


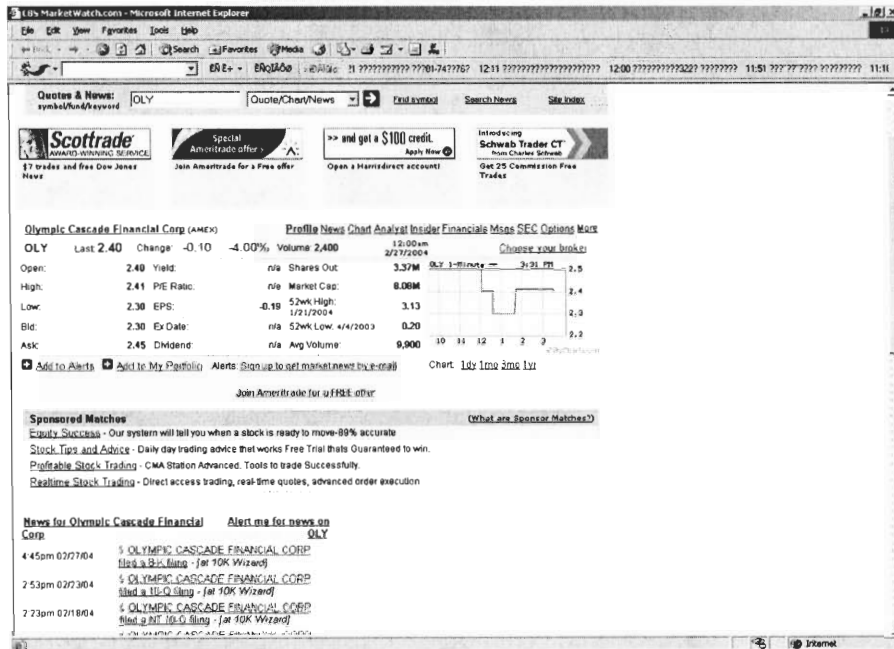
Figure 3-4: Portfolio Holdings Screen of VSE

Stock-trading feature: makes sell and purchase stocks very easy. You can also practice advanced trading technique like buying on the margin.



**Figure 3-5: The Stock Trading Page of VSE**

Stock research feature: provides stock ticker search, detail quotes and charts of stock price history, and related news to the stock.



**Figure 3-6: The Investor Research Screen of VSE**

News update feature: provides the latest updated news for your whole portfolio holdings and the market.

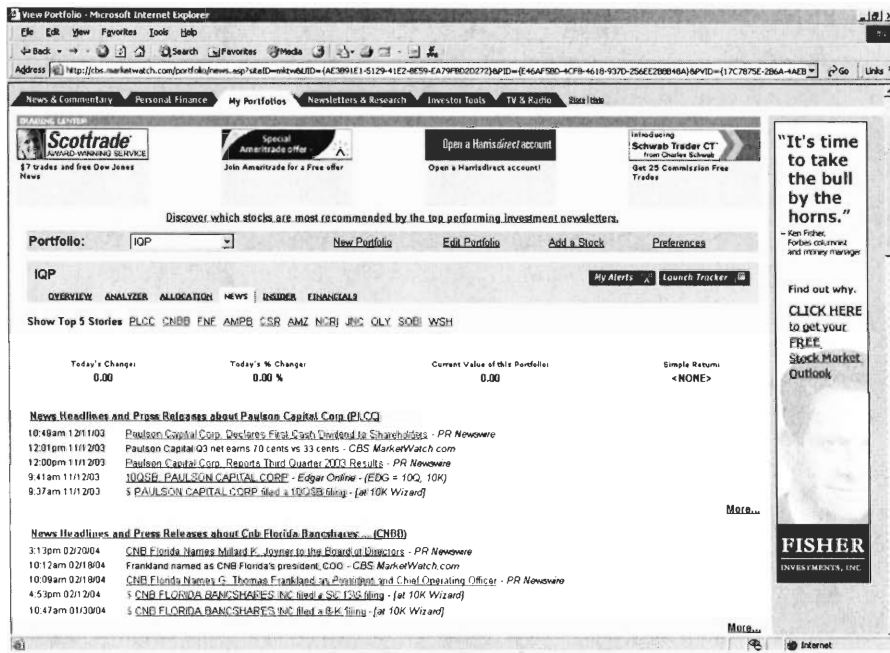


Figure 3-7: The News Update Screen of VSE

### 3.2 Description of the Experiential Study

To make our practice fun, a group competition account will be created for all the members. Each member will start with 50,000 fantasy dollars. The margin money is allowed to be borrowed with paying relatively high interest. To avoid choosing the same stock, each member picks a different industry he/she is interested in. Lian will be investing in Financial Industry; Grace will be focusing on Service Industry; and Miguel will be investing in Technology Industry. Every account is allowed to purchase any number of stocks as that person wants at one time.

The rumors and news for the stocks would be collected. History of the price, 1-year target estimated, 52-week range, volume and market capital would be analyzed and compared. Besides of these, we would also refer to official reports like company's quarterly report and annual report to decide whether a company is making profit or in debt.

With all these information, we will choose whether to buy more or get rid of one specific stock.

One of our goals of the experimental study is to test various strategies towards different situations. Each of us will try among a variety of stock strategy like contrarian investing philosophy, short-term trading and dollar cost averaging. Different strategies would be executed at different times. Each member will summarize why he/she chooses that specific strategy at that moment, and how it works.

Although the simulation investment competition will be going on in three separate accounts, we will keep in frequent contacts. Experience of successes and failures will be exchanged at a weekly basis. At the same time, the format of the weekly report will be synchronized. We will have a friendly competition among three of us. By the end of the sixth week of C term, the person whose account has the most fantasy dollar is the winner.

This experiential study will provide us with an opportunity to better digest book knowledge. In addition, we will be able to figure out what personality we have as investors: risk averse, risk seeking or risk neutral. The simulation would familiarize us with the real U. S. stock market. We will definitely be benefited from this for our future investments.



## **Chapter 4: A Six-Week Experiential Study by Lian**

### **4.1 Lian's Week 1 Trading Diary (Jan. 19 – Jan. 24, 2004)**

#### **Goal of the Week**

This was the first week when I practiced stocks trading in VSE website. My plan for this week was to use my 50,000 initial cash to choose 4-5 stocks, which had relatively low risk and stable increase in price. After thorough researches, I aimed to pick stocks that were actively traded for this week. The stocks I picked for my portfolio must possess the following characteristics in the last 6 months: a steady increasing basic chart for the past one year; a positive P/E ratio; optimistic news on both the company earning and the most recent quarter report; 1-year target price higher than current stock price; and lately be upgraded by stock analysts or current share holders. According to these basic standards, I purchased JNC, AMZ, AMPB and PLCC on different days when their prices fell into my acceptable price range.

#### **Activities**

AMZ, American Medical Security Group, was the only stock that I did both purchase and selling within my first week of practice. I had predicted that its price would definitely go up, but I didn't expect that the soar would approach so soon. Its price had been up and down around \$23.00 for the past three months. Yet on the next day of my purchase, its price hit the historical high: \$24.77 when the market closed. I believed that there would be a price fluctuation after the peak. Therefore, I sold my holdings at \$24.42 while the price curve was still rising. Although the first transaction looked a little bit

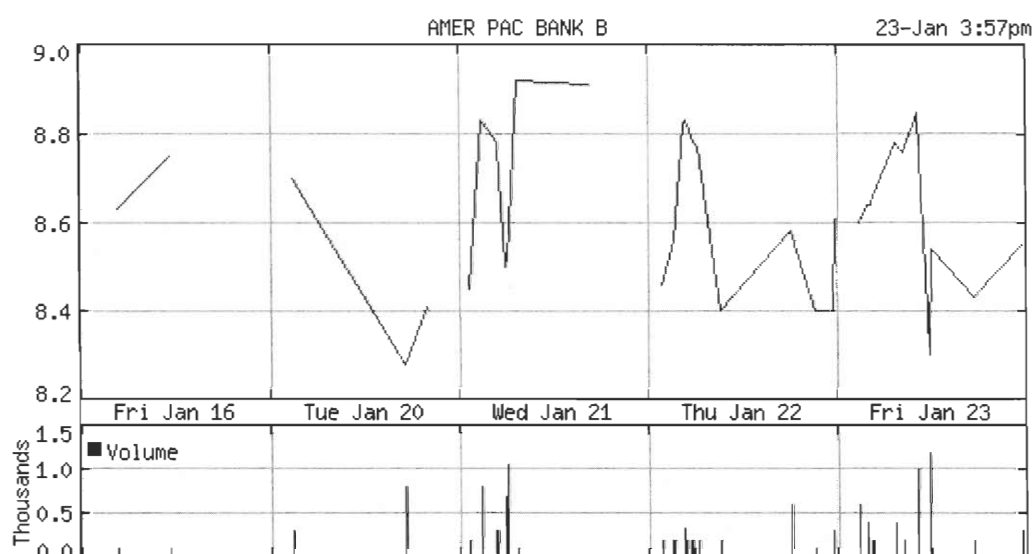
conservative, the profit I gained from it made me more confident and more motivated in the experiential study.



**Figure 4-1: 5-Day Trading Volumes and Share Values for AMZ**

I put JNC, Nuveen Investments, Inc., which was formerly known as The John Nuveen Company into my portfolio due to its positive technical analysis result. JNC had a big market capital around \$2.70 Billion. In the past 52 weeks, its price ranged from \$19.89 to \$30.55. In the past three months, its price had been wondering around \$26, which still has space remaining for its 1-year target estimation \$31.33. Its P/E ratio at beginning of the week was 19.41. According to the last quarter report, its 4<sup>th</sup>-quarter net rose 19%. Therefore, at end of last December, its basic chart curve started to show soaring tendency. I bought 500 shares of JNC at \$29.33 on Jan. 21<sup>st</sup>. While its basic curve was going up steadily, I added another 300 shares to my portfolio at \$29.44. The average buy price I spent on this stock is \$29.385. Although its closing price at the end of Fri. was \$29.20, a little lower than my average purchasing price, I believed that it definitely would bounce back when the index for S&P 500 went up next week.

AMPB, American Pacific Bank, was a small regional bank. For the past record, it had a very steady soaring curve for the past 52 weeks, although its daily price range appeared to be very volatile. Yet on its message board, the shareholders were optimistic on its future. Since its price was low around \$8.00 to \$9.00, I decided to make use of its volatile daily price wave to do some day trading. I bought 500 shares at \$8.58, and its current value in my portfolio is \$8.55. AMPB is the stock that I lost the least in the first week.



**Figure 4-2: 5-Day Trading Volumes and Share Values for AMPB**

Among the four stocks I purchased, PLCC, Paulson Capital Corp., was the one that I had the highest confidence and expectation for. The firm was so small that it only had 82 employees and \$43.55 million market capital. According to year 2003 report, the stocks of small capital companies did much better than the stocks of large capital companies. The price of PLCC ranged from \$4.02 to \$11.90 in the past 52 weeks. Referring to the extremely high confidence on the shareholders' message board, I believe the space for its price soaring is very big. But unfortunately, I hesitated to put an order on Wednesday. On the next day, its market-open price jumped over \$12.10, later reached its history high

\$15.12 within the same day. I decided to wait till its price dropped down a little bit. I bought 500 shares at \$14.43 and another 500 shares at \$14.14 while the price was sliding down. Although my portfolio showed a negative increase for PLCC at the end of the week, I had confidence that this stock would easily reach \$15.00 or higher the next week.

Following are two tables of stocks that I traded in the first week and my portfolio holdings. Gain/Loss for each stock includes the \$10.00 commission fee for both buy and sell. Average value was taken if the same stock was bought or sold at different prices within the week.

**Table 4-1: Week 1 Stock Tradings**

Sym	Quantity	Buy Price	Sell Date	Sell Price	Profit
<u>AMZ</u>	300	23.30	01/22/2004	24.42	+316.00
<b>Total Profit</b>					+316.00

AMZ - American Medical Security Group, Inc

**Table 4-2: Week 1 Portfolio Holdings**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Change	% Equity
<u>JNC</u>	L	800	29.37	29.20	-0.17	23360.00	-156.00	-0.58%	48.86%
<u>AMPB</u>	L	500	8.58	8.55	-0.03	4275.00	-25.00	-0.35%	8.58%
<u>PLCC</u>	L	1000	14.29	14.00	-0.29	14000.00	-310.00	-2.03%	28.08%

JNC - Nuveen Investments Inc

AMPB – American Pacific Bank

PLCC - Paulson Capital Corp

### Summary for Week 1:

At the end of my first week's experimental practice, I had total equity \$49,847.39 and still had \$8,212.39 liquidity that I could use to pick more stocks when their price dropped lower. Margin money was untouched. My total portfolio return ended up with -0.31%

and this week's return ended up with  $-1.53\%$ , although they used to be positive in the middle of this week. Referring to my investing performance in the first week, I thought I was a risk averse. Most of my decisions were made based on the technical analysis of the stocks. Thus I belonged to one of those market followers, who have relatively conservative investing behavior. Although temporarily my equity shows a decrease, I am still very confident about my holdings. I believe next week, they will turn into a beautiful positive.

## **4.2 Lian's Week 2 Trading Diary (Jan. 26 – Jan. 30, 2004)**

### **Goal of the Week**

This was the second week for my experimental study. With the warm up in first week's transactions, I became much bolder on stock buying and selling. My plan for this week was to pick more stocks to diversify my portfolio, to sell some of my holdings at nice prices, and to borrow part of the margin funds when the market sliding down. Spending a lot of time tracing the stock market this week, I captured several golden moments, and made some successful transactions.

### **Activities**

The biggest strategy I used for this week was to buy more shares of a stock when its price was dropping. I implemented this strategy on a series of PLCC transactions, which I considered as my most dramatic transactions of the week. As I predicted last week, PLCC hit its historical high at \$16.49 early this week. While its price was still going up, I sold my current holdings at two different prices: 500 shares at \$15.50 and 500 shares at \$15.84. Not until it hit the historical high, I realized that I might be a little bit rushed when I was making the decisions. But it was still good enough to gain almost \$1340.00 on this stock just in less than a week. After its price hit the peak, the price of PLCC started going down all the way to \$12.30. With great confidence in this active stock, I started buying back PLCC to my portfolio. I bought 1000 shares at \$14.80, 1000 shares at \$13.95, 297 shares at \$13.051, 157 shares at \$12.3, and 450 shares at \$12.901. Although I bought 1000 shares of PLCC at \$14.80, which seemed pretty high, but with gradually buying it at lower prices, I lowered its average cost. Unavoidably, I started

using my margin funds. At the end of the week, the average price of my PLCC was \$12.98. Therefore, I decided that as long as I still had money in my account or was allowed to borrow the margin, I would get more PLCC as long as its price is lower than my current average cost.

I held a new stock FNF in my account only for a very short time this week. FNF, Fidelity National Financial Inc was a large market capital stock with steady increasing over the past 52 weeks. I planned to invest in it long-term. But sooner, I realized that its price was too high for my equity, and its price had been soaring too slowly for my 6 weeks' practice period. Thus I dumped the stock when I had meager profit.

Three new stocks I put in my portfolio this week were ALL for Allstate Corp, AMTD for AmeriTrade Holding Corp and CSR for Credit Suisse Group. All of them had very good reputation and steady increase in the past time. Although the big drop of S&P 500 at the market closing on Friday caused my equity another small negative increase, I still held strong confidence that I was using the correct strategies, and I was on the right tracks.

Following are two tables of stocks that I traded in the second week and my portfolio holdings. Gain/Loss for each stock included the \$10.00 commission fee for both buy and sell. Average value is taken if the same stock is bought or sold at different prices within the week.

**Table 4-3: Week 2 Stock Tradings**

Sym	Quantity	Buy Price	Sell Date	Sell Price	Profit
<u>PLCC</u>	500	14.29	01/26/2004	15.50	+585.00
<u>PLCC</u>	500	14.29	01/26/2004	15.84	+755.00
<u>FNF</u>	250	40.57	01/30/2004	40.82	+42.50
<u>AMPB</u>	500	8.58	01/30/2004	9.00	+190.00

Total Profit	+1572.50
--------------	----------

PLCC - Paulson Capital Corp  
 FNF - Fidelity National Financial Inc  
 AMPB - American Pacific Bank

**Table 4-4: Week 2 Portfolio Holdings**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Change	% Equity
JNC	L	800	29.37	28.81	-0.56	23048.00	-468.00	-1.91%	47.61%
ALL	L	200	45.408	44.83	-0.578	8966.00	-135.60	-1.27%	18.52%
PLCC	L	2904	13.90	12.98	-0.92	37693.92	-2731.68	-6.62%	77.86%
AMTD	L	300	15.69	15.86	+0.17	4758.00	+41.00	+1.08%	9.83%
CSR	L	300	38.49	37.88	-0.61	11364.00	-193.00	-1.58%	23.47%

JNC - Nuveen Investments Inc  
 ALL – Allstate Corp  
 PLCC - Paulson Capital Corp  
 AMTD – AmeriTrade Holding Corp  
 CSR - Credit Suisse Group

**Summary for Week 2:**

At the end of my second week’s experimental practice, I had total equity \$48,411.75. I borrowed \$37,418.17 from margin, thus had to pay \$18.10 as interest. My total portfolio return ended up with –3.18%. Referring to my investing performance this week, I thought that I started getting a little bit aggressive. Most of my decisions were made based on the historical data. Although temporarily my equity shows a decrease, my portfolio holdings were still in a good shape.



### **4.3 Lian's Week 3 Trading Diary (Feb. 2 – Feb.6, 2004)**

#### **Goal of the Week**

For the third week of my experimental study, I started getting more and more comfortable with the stock trading. The soaring and dropping of the stock prices used to make me anxious. Yet now, it would only cause minor billows on my emotion. I became a more mature investor psychologically. This was a benefit of growing through real life practice. My general plan for this week was to keep lowering the average cost of PLCC, if the market was still sliding down; and to get some new stocks whose price were more appropriate for my equity amount.

#### **Activities**

To achieve the first goal of the week, I bought another 400 shares of PLCC at \$10.92 within the maximum allowance of my margin. This greatly lowered my current average to \$13.54. I believed I would benefit from this strategy eventually, since I could already see the dawn at the end of this week, when the price of PLCC went up to \$11.94. Even if I had used up all my margin money, I could always sell the shares that I already made profit, and to try to buy more when the price fluctuated. However, I was also aware of the potential problem that caused by this strategy. When I put more and more same stock into my portfolio, I had less and less money to invest on other stocks. It would be against the diversity rule of portfolio holdings. Therefore, I would try to find some very low price stocks to diversify my holdings.

The price of OLY perfectly fell into the price range that I could afford. When I was doing the technical data analysis for OLY, I found that it used to be the most active stock during our first week experimental stock trading. But since the end of last week, it

became more and more quiet. The price stayed around \$2.20, and the volume decreased to minimum. From these facts, I believed that its price would definitely bounce back since the shareholders still held strong confidence for it. Thus I purchased 3300 shares of OLY at \$2.20. As a small capital stock, the chance for OLY to have  $\pm 10\%$  fluctuation on its price would be much bigger than a big market capital stock like FNF. I intended to get more aggressive.

Following are tables of the stocks that I traded in the third week and my portfolio holdings. Gain/Loss for each stock included the \$10.00 commission fee for both buying and selling. Average value was taken if the same stock was bought or sold at different prices within the week.

**Table 4-5: Week 3 Stock Tradings**

Sym	Quantity	Buy Price	Sell Date	Sell Price	Profit
<u>ALL</u>	200	45.408	02/02/2004	45.85	+58.40
<u>CSR</u>	300	38.49	02/02/2004	38.80	+73.00
<u>AMZ</u>	300	23.48	02/06/2004	24.50	+286.00
<u>AMTD</u>	300	15.69	02/06/2004	16.41	+196.00
Total Profit					+613.00

ALL – Allstate Corp  
 CSR - Credit Suisse Group  
 AMZ - American Medical Security Group, Inc  
 AMTD – AmeriTrade Holding Corp

**Table 4-6: Week 3 Portfolio Holdings**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Change	% Equity
<u>JNC</u>	L	800	29.37	28.86	-0.51	23088.00	-408.00	-1.74%	49.23%
<u>PLCC</u>	L	3304	13.54	12.00	-1.54	39648.00	-5088.16	-11.37%	84.52%
<u>OLY</u>	L	3300	2.20	2.20	0.00	7250.00	-10.00	0.00%	15.48%

JNC - Nuveen Investments Inc  
 PLCC - Paulson Capital Corp  
 OLY - Olympic Cascade Financial Corp

### **Summary for Week 3:**

At the end of my third week's experimental practice, I had total equity \$46,900.07. I borrowed \$23,095.93 from margin, thus had to pay \$36.85 as interest. My total portfolio return ended up with -6.20%. Although it looked no better than last week's record, but it used to drop to as low as -14% in the middle of this week. I was very comfort by the fact that my current strategy saved me from larger loss. Referring to my investing performance this week, I knew that I was getting more aggressive. I would try to control my intension of eagerly gaining more profit, and try to lower the risk ratio in my portfolio holding.

#### **4.4 Lian's Week 4 Trading Diary (Feb. 9 – Feb.13, 2004)**

##### **Goal of the Week**

My goal for the fourth week was to sell portion of the holdings when their price were getting higher and buy them back when price went down again. Since there was around \$15,000 margin I could borrow according to my current total equity, I would make used of this sum of money, and try to gain some profit to make up the high interest. Thus my major duty for this week was to catch the fluctuation of the market.

##### **Activities**

To keep lowering the average cost of PLCC, I bought another 850 shares at \$11.30. This made the average cost for all my holding PLCC as low as \$13.08. But referring to the dropping trend on its basic curve, I had to get more within my affordability when the price kept going down. This stock seemed to be a candidate for relatively long-term investment, since it might take a while for its stockholders and potential investors to gain back the confidence for it.

OLY was the only stock I sold for this week. I bought 2940 shares at \$2.00, and sold them at \$2.28. I saw the cyclical characteristic of OLY. Thus I decided to continuously do short-term trading to this stock. More than 13.7% profit within one-week period made this low cost stock very attractive.

Following are table of the stocks that I traded this week and my portfolio holdings. Gain/Loss for each stock includes the \$10.00 commission fee for both buying and selling. Average value was taken if the same stock was bought or sold at different prices within the week.

**Table 4-7: Week 4 Stock Tradings**

Sym	Quantity	Buy Price	Sell Date	Sell Price	Profit
<u>OLY</u>	2940	2.00	02/13/2004	2.28	+823.20
Total Profit					+823.20

OLY - Olympic Cascade Financial Corp

**Table 4-8: Week 4 Portfolio Holdings**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Change	% Equity
<u>JNC</u>	L	800	29.37	29.45	+0.08	23560.00	+44.00	+2.72%	52.19%
<u>PLCC</u>	L	4154	13.08	11.25	-1.83	54341.16	-7681.82	-13.99%	120.38%
<u>OLY</u>	L	3300	2.20	2.07	-0.13	6831.00	-439.00	-5.91%	15.13%
<u>FNF</u>	L	67	39.50	39.04	-0.46	2615.68	-40.82	-1.16%	5.79%

JNC - Nuveen Investments Inc

PLCC - Paulson Capital Corp

OLY - Olympic Cascade Financial Corp

FNF - Fidelity National Financial Inc

**Summary for Week 4:**

At the end of my fourth week's experimental practice, I had total equity \$45,142.59. My total return ended up with -9.71%. My total equity went down to amid the sinking market. I didn't find a perfect moment to sell part of my current holdings since the peak didn't really occur. Under this circumstance, I chose to hold all the holdings and to keep tracing the market than simply dump some stocks at a lower price for some better candidates. I realized how important an efficient market was to personal trading.

## 4.5 Lian's Week 5 Trading Diary (Feb. 16 – Feb.20, 2004)

### Goal of the Week

The end of the experiential study was approaching. I started to worry about if the market would be getting more efficient in less than two weeks. It was easier to earn capital gain in an active market. Thus for the fifth week of my experimental study, I wish there would be some peaks occur for the market. My goal for this week was to implement the incompletes from the last week: to sell some current holdings and buy them back at a lower price. With the decreasing of my total equity, I could borrow less and less margin money. Thus selling stocks would be the only solution.

### Activities

Unfortunately, the efficient market didn't occur this week. DJIA, Nasdaq and S&P 500 kept going down, so did my total equity. I tried to use every possible penny I could borrow from the margin, and purchased 195 shares of AMZ at \$23.32. I figured that we were facing the bottom of the market from lately. I predicted that there would be a small bounce back for the market soon in the future. Waiting for that chance, I didn't make any sell to the stocks in my portfolio.

Following is a table of the holdings I had in my portfolio. Average value was taken if the same stock was bought or sold at different prices within the week.

**Table 4-9: Week 5 Portfolio Holdings**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Change	% Equity
JNC	L	800	29.37	29.45	+0.08	23560.00	+44.00	+2.72%	52.56%
PLCC	L	4154	13.08	11.25	-1.83	54341.16	-7681.82	-13.99%	90.78%
OLY	L	3300	2.20	2.07	-0.13	6831.00	-439.00	-5.91%	16.77%
FNF	L	67	39.50	39.04	-0.46	2615.68	-40.82	-1.16%	5.77%

<u>AMZ</u>	L	195	23.32	23.39	+0.07	4561.05	+3.65	0.30%	10.33%
------------	---	-----	-------	-------	-------	---------	-------	-------	--------

JNC - Nuveen Investments Inc

PLCC - Paulson Capital Corp

OLY - Olympic Cascade Financial Corp

FNF - Fidelity National Financial Inc

AMZ - American Medical Security Group, Inc

### **Summary for Week 5:**

At the end of my third week's experimental practice, I had total equity \$44,287.97. I borrowed \$39,183.91 from margin, which reached the maximum I could borrow. Therefore, I had to pay \$99.14 as interest. My total portfolio return ended up with – 11.42%. The inefficient market directly affected my equity; and our six-week time limitation made it even worse.

## **4.6 Lian's Week 6 Trading Diary (Feb. 23 – Feb. 27, 2004)**

### **Goal of the Week**

This was the last week for my experimental study. By the end of the fifth week, my total equity added up to \$46,607.48; total return was -11.42%. The price of most of the stocks in the financial industry went down to amid the dropping of S&P 500 index at the end of the last week. As a consequence, my total equity turned into a more negative increase. Therefore, my major goal of this week was to decrease the loss in my investment if the market would allow. With the experience from previous market tracing, I found an interesting but true rule. The market usually had slight fluctuations at the beginning of a week; an obvious soar in the middle around Thursday; went down again when the market closed for the weekend. Thus I decided to keep a close eye to the movement of market so that I could catch that critical moment.

### **Activities**

Among all the stocks in my portfolio, OLY could be considered as one of the most active stocks. The movement of its price occurred to be cyclical. Recently, its price had been wondering around \$2.00 to \$2.50. I had 3300 shares of OLY in my portfolio from the third week, which were bought at \$2.20. On Monday when its price went up, I successfully sold all of them at \$2.50. From six weeks experiential study, I could see that OLY was a very good candidate for real life investment.

Also on Monday, the price of AMTD dropped down to my open order range \$15.70. Yet the negative increase in my total equity limited my ability to borrow the margin. According to the maximum allowance, I bought 149 shares of AMTD at \$15.70.



Although it was a little risky to add more stocks in my portfolio in the last week, through technical data analysis, I believed that \$15.70 was a bottom for AMTD. I planned to make some profit through short-term investment. Two days later, as I predicted, its price went up. I sold all of it immediately at \$16.04 when I saw the small capital gain.

Extending the soaring trend from last two weeks, AMZ kept going up at a steady pace. To make a beautiful period to its trading, I sold all of it at \$23.89, made 2% capital gain.

With the end of the experiential study approaching, all of the FNF shares were sold at \$39.23, which was a little bit lower than its purchase price, \$39.50. Comparing to my major loss in PLCC, the loss in FNF was so insignificant.

PLCC was my biggest investment during these six weeks. Its price used to reach \$16.489, hitting its historical high, and went all the way down to \$9.02. I gained around \$1300 from the first two transactions at the beginning of the experiential study. Ever since I bought 1000 shares of PLCC as high as \$14.43. I kept implementing the strategy of dollar-cost-averaging. Yet due to my decreasing ability on margin borrowing, the number of shares I could afford was getting smaller and smaller. Thus I didn't really get the chance of adding the same amount of shares into my portfolio. This is against the principle of dollar-cost-averaging. But my perseverance of keeping buying PLCC at a lower price did effectively lower my average cost. The most dramatic thing I experienced during these six weeks was on the last day of my transaction. My total equity experienced from -25% to -6.77%. Although it still appeared to be negative, but comparing to the tanking market during the last two weeks, the result was fairly encouraging. Therefore, I believed that my strategy totally worked even in a not so

optimistic bear market. The only thing mattered was the time. Stock investment should be a long-term investing. Following an efficient market would be a short cut to capital gaining in this game.

The investment on JNC was the only pity during my whole trading period. The cost was too high for my equity total. The price didn't go up and down actively. The P/E ratio for this stock was relative low. I once had 3% paper gains on JNC in the middle of the fourth week, but I didn't catch the golden chance to turn it to real profit.

Following are tables of the stocks that I traded in the sixth week. At the end of the week, I sold all my portfolio holdings and declared an end to my experiential study. Gain/Loss for each stock included the \$10.00 commission fee for both buying and selling. Average value was taken if the same stock was bought or sold at different prices within the week.

**Table 4-10: Week 6 Stock Tradings**

Sym	Quantity	Buy Price	Sell Date	Sell Price	Profit
<u>OLY</u>	3300	2.20	02/23/2004	2.50	+970.00
<u>AMTD</u>	149	15.70	02/26/2004	16.04	+30.66
<u>AMZ</u>	195	23.32	01/27/2004	23.89	+91.15
<u>PLCC</u>	4536	12.738	01/27/2004	11.288	-6677.20
<u>FNF</u>	67	39.50	02/27/2004	39.23	-38.09
<u>JNC</u>	800	29.37	02/27/2004	28.18	-982.00
Total Profit					-7505.48

OLY - Olympic Cascade Financial Corp  
 AMTD - AmeriTrade Holding Corp  
 AMZ - American Medical Security Group, Inc  
 PLCC - Paulson Capital Corp  
 FNF - Fidelity National Financial Inc  
 JNC - Nuveen Investments Inc

**Summary for Week 6:**

At the end of my whole experimental practice, I had total equity \$46,607.48. My total portfolio return ended up with  $-6.79\%$ . Experiencing the dramatic change from  $-25\%$  to  $-6.79\%$ , I considered my general strategy effective. I was definitely a risk-seeking investor. But when bear market came and the total equity fell to a depressing amount, I could keep calm and make sober decisions. I would definitely be benefited from these characteristics when I am doing the real stock trading in the future. The experiential study made me more familiar with the stock trading rules and environment.

## **Chapter 5: A Six-Week Experiential Study by Grace**

### **5.1 Grace's Week 1 Trading Diary (Jan. 21 – Jan. 23, 2004)**

#### **Goal of the Week**

Starting Jan. 21<sup>st</sup> till Feb. 27<sup>th</sup>, we were going to compete each other by using the Virtual Stock Exchange (VSE) web site. Each of us was allowed to use \$50,000 virtual money for this competition. Each competitor could invest any stocks and unlimited shares in assigned industries. I would be investing in the Service Industry.

#### **Activities**

We researched and reviewed the history of stock market from previous chapter. Starting on Jan. 21, 2004, we actually started stock trading. Since none of us had an experience on it, we decided to open up individual account from the Virtual Stock Exchange web site. This individual account is for practicing stock trading and it will not affect to our competition. We opened up the competition account from VSE, named as IQP04C.

Week 1 was more likely investing stocks. For the convenience of gathering stock information, news and looking for the list of stock symbols in service industry category, I opened an account on Yahoo Finance web site

These are the stocks where I found from Yahoo Finance web site:

Waste Management Services:	IDSA
Real Estate Operations:	NNN
Retail (Specialty):	SPLS
Retail (Technology):	ULTE / ITN

I investigated these stocks base on 5-days or 3-months basic charts or list from top performance industry. These stocks were no higher than \$30.00 per share. Since this

was a competition and I had no experience, I was reluctant to buy big quantity of high price stocks. Following table shows how many stocks I hold, how many shares of each stocks and prices.

**Table 5-1: Week 1 Portfolio Holding**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Chg	%Equity
<u>IDSA</u>	L	100	4.47	4.47	0.0000	477.00	-10.00	0	0.85
<u>NNN</u>	L	100	17.9	17.95	0.0500	1795.00	-5.00	5.70	3.75
<u>SPLS</u>	L	200	26.38	26.47	0.0900	5294.00	8.00	0.34	2.60
<u>ULTE</u>	L	200	6.97	7.12	0.1500	1424.00	20.00	2.15	2.44
<u>ITN</u>	L	200	11.97	12.00	0.0300	2400.00	-4.00	0.25	4.76

IDSA - Industrial Services of America Inc.

NNN - Commercial Net Lease Realty Inc.

SPLS - Staples Inc.

ULTE - Ultimate Electronics Inc.

ITN - InterTan, Inc.

### **Summary for Week 1**

I did not have any transaction for Week 1. It was a short week, and I decided to wait a little longer to see how my stock would work. I would keep these stocks till next week, but I would also invest more stocks in future. I was not sure about the performance of my stocks, but I decided to sell them before I would too much money.

## 5.2 Grace's Week 2 Trading Diary (Jan. 26 – Jan. 30, 2004)

### Goal of the Week

In Week 1, I bought five stocks, and the price of these stocks did not move much. I have \$50,000 to use for this competition; I will invest more stocks during the second week. I wanted to invest large share of low price stock for this week. If stock price went down, I would not hold them till next week. Since I only had certain amount to use for this competition, I could not invest large share of high price stocks that were in the list of top performance industry. On the contrary, the low price stocks would not raise much. However, if I had large quantity of share, I still could make good profit. If this strategy worked by the end of Week 3, I would continue to invest other stocks by using it.

### Activities

I was not confidence to make any trade on Monday. Most service industries' stock went down as stock market slided. As you know, Staple Inc. (SPLS) stock was the highest price stock. It was down till next day, I sold SPLS in the price lower than I bought from last week. At that time, the price was high and I bought 200 shares. Before it went really bad, I sold 150 shares, in case SPLS would go up again, I saved 50 shares.

**Table 5-2: Week 2 Stock Trading**

Sym	Quantity	Buy Price	Sell Date	Sell Price	Profit
<u>SPLS</u>	150	26.38	1/27/2004	26.11	-60.50
Total:					-60.50

SPLS - Staples Inc.

I invested on more stocks during week 2. I bought TASA, which was in low price and it had been rising slowly for while. I bought them at two different time but same amount of shares. I thought when the price went up, even if it was very small profit on

each share, I still could make money from the large amount of shares. I bought more than 300 shares for each of TASA, SRXA and ELAM.

**Table 5-3: Week 2 Portfolio Holding**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Chg	%Equity
<u>IDSA</u>	L	100	4.47	4.46	-0.0100	446.00	-11.00	-0.22	0.85
<u>NNN</u>	L	100	17.9	18.3	0.4000	1830.00	30.00	2.23	3.79
<u>SPLS</u>	L	50	26.38	26.61	0.2300	1330.50	1.50	8.87	2.75
<u>ULTE</u>	L	200	6.97	7.16	0.1900	1432.00	28.00	2.73	2.80
<u>ITN</u>	L	200	11.97	11.65	-0.3200	2330.00	-74.00	-2.67	4.53
<u>CMPP</u>	L	100	8.54	8.7	0.1600	870.00	6.00	1.87	1.82
<u>ULTE</u>	L	100	7.55	7.16	-0.3900	716.00	-49.00	-5.17	1.41
<u>FUR</u>	L	100	2.50	2.69	0.1900	269.00	9.00	7.6	0.57
<u>TASA</u>	L	300	2.85	2.5	-0.3500	750.00	-115.00	-12.28	1.55
<u>TASA</u>	L	300	3.04	2.5	-0.5400	750.00	-172.00	-17.76	1.55
<u>UNEWY</u>	L	300	10.4	10.4	0.0000	3120.00	-10.00	0.00	5.94
<u>SRXA</u>	L	1000	5.86	5.88	0.0200	5880.00	10.00	0.34	5.53
<u>ELAM</u>	L	400	2.14	2.38	0.2400	952.00	86.00	11.21	2.02
<u>BFLY</u>	L	100	4.04	4.09	0.0500	409.00	-5.00	1.24	0.79

NNN - Commercial Net Lease Realty Inc.

FUR - First Union Real Estate Equity & Mortgage Investments

IDSA - Industrial Services of America Inc.

TASA - Touchstone Applied Science Associates

SPLS - Staples Inc.

UNEWY - United Business Media PLC

ULTE - Ultimate Electronics Inc.

SRXA - SR Telecom Inc.

ITN - InterTan Inc.

ELAM - Elamex SA de CV

CMPP - Champps Entertainment Inc.

BFLY - Bluefly Inc.

### Summary for Week 2:

Even if I had 14 different stocks so far, I did not feel like to sell any of them. I had not lost much money yet. I would not sell my stocks unless a real good change came. I predicted that for six weeks' period, the prices for the stocks wouldn't change too much. A longer time horizon would be better for my situation.

Ever since I sold 150 shares of SPLS, its price had changed very often in a day. It was not a very steady price stock. Because I was too busy to be a full time trader, I planned to sell them all by next week. I might sell TASA sometime next week.



### 5.3 Grace's Week 3 Trading Diary (Feb. 2 – Feb. 6, 2004)

#### Goal of the Week

Since I invested many stocks from last week, I needed to make sure which stocks I should sell and which I should hold for this week. I only spent approximately half of my virtual money, \$25,000.00 so far. As part of my goal for the week, I also plan to invest on more stocks. Generally when stock market was going down, it took time for it to recover to where it used to be. I did not feel comfortable to hold large amount of SPLS stock that I bought last week. I would try to sell SPLS and TASA when it got better during the third week.

#### Activities

On Monday, the stock market opened low and slowly went up in the early afternoon. Since I did not have the time to look at stock market all day and catch good transaction moment, I decided to wait till market got better. I bought 1000 shares of SR Telecom Inc. (SRXA) in week 2. The performance of SRXA stock remained good till the beginning of week 3. Therefore, I sold half of my holdings before it gave me bigger damage.

**Table 5-4: Week 3 Stock Trading**

Sym	Quantity	Buy Price	Sell Date	Sell Price	Profit
<u>SRXA</u>	500	5.86	2/2/2004	5.38	-260.00
Total:					-260.00

SRXA - SR Telecom Inc.

I lost \$260.00 by selling 500 shares of SRXA but if I bought them again when it was low, my lose could be recovered when its price soared in the future. After detail research and analysis, I saw a possibility that its price could bounce back sometime in the next three weeks. Thus I bought back 500 shares of SRXA exactly at the price I sold them.

So far, I only lost some transaction fees on this stock. If its price went up as I expect, I could make profit up to what I lost so far.

From following table, you could see that I invested on two new stocks during the third week. I bought 500 shares of Golf Trust of America Inc. (GTA) and 200 shares of Omega Healthcare Investors inc. (OHI). The performances of these two stocks are steady for past 3 months.

**Table 5-5: Week 3 Portfolio Holding**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Chg	%Equity
IDSA	L	100	4.47	5.1	0.6300	510.00	53.00	14.09	1.03
NNN	L	100	17.9	18.85	0.9500	1885.00	85.00	5.31	3.82
SPLS	L	50	26.38	26.01	-0.3700	1300.50	-28.50	-1.40	2.64
ULTE	L	200	6.97	6.93	-0.0400	1386.00	-18.00	-0.57	2.81
ITN	L	200	11.97	11.28	-0.6900	2256.00	-148.00	-5.76	4.58
CMPP	L	100	8.54	8.99	0.4500	899.00	35.00	5.27	1.82
ULTE	L	100	7.55	6.93	-0.6200	693.00	-72.00	-8.21	1.41
FUR	L	100	2.5	2.81	0.3100	281.00	21.00	12.40	0.57
TASA	L	300	2.85	2.55	-0.3000	765.00	-100.00	-10.53	1.55
TASA	L	300	3.04	2.55	-0.4900	765.00	-157.00	-16.12	1.55
UNEWY	L	300	10.4	9.76	-0.6400	2928.00	-202.00	-6.15	5.94
SRXA	L	500	5.86	5.45	-0.4100	2725.00	-215.00	-7.00	5.53
ELAM	L	400	2.14	2.489	0.3490	995.60	129.60	16.31	2.02
BFLY	L	100	4.04	3.88	-0.1600	388.00	-26.00	-3.96	0.79
SRXA	L	500	5.38	5.45	0.0700	2725.00	25.00	1.30	5.53
OHI	L	200	10.17	10.69	0.5200	2138.00	94.00	5.11	4.34
GTA	L	500	2.23	2.39	0.1600	1195.00	70.00	7.17	2.42

NNN - Commercial Net Lease Realty Inc.

IDSA - Industrial Services of America Inc.

SPLS - Staples Inc.

ULTE - Ultimate Electronics Inc.

ITN - InterTan Inc.

CMPP - Champps Entertainment Inc.

OHI - Omega Healthcare Investors Inc.

FUR - First Union Real Estate Equity & Mortgage Investments

TASA - Touchstone Applied Science Associates

UNEWY - United Business Media PLC

SRXA - SR Telecom Inc.

ELAM - Elamex SA de CV

BFLY - Bluefly Inc.

GTA - Golf Trust of America Inc.

**Summary for Week 3:**

I bought these two stocks at the end of week 3, they appeared to be doing well till the market closed. I would like to invest more of OHI and other good performance stocks. But most of them were in high price at this moment. I learned from the mistakes I made from UNEWY and SRXA. I had been holding too long for those two stocks. So from now on, maybe I should not hold stocks for more than 5 business days. It was important to remind myself that I only had three more weeks to compete. Elamex SA de CV (ELAM) had been doing well and I would sell it sometime next week. From Week 3 Stock Holding table, I gained \$129.00 just from ELAM. As I said, ELAM was a low price stock. But I had 400 shares, I could make more than \$100.00 besides of the commission fee. If stock market went well next week, I would plan to sell each stock when it gained more than \$100.00.

## **5.4 Grace's Week 4 Trading Diary (Feb. 9 – Feb. 13, 2004)**

### **Goal of the Week**

I had more than 20 different stocks in my portfolio. For this week, I planned to sell most of my stocks. Even if I lost some profit, I would rather to sell them as soon as possible before I lost more than I expected. By the end of this week, I wanted to have less than ten stocks holding in my portfolio. It was good to have many stocks and different size of shares as long as it makes profit, however, when the price varied every day, it was hard to keep an eye on the market and catch all those golden moments. For this week, I planned to make couple hundreds dollar profit.

### **Activities**

Last three weeks, my stock performance did not go well. As you could see from my previous weekly report, I invested on many different stocks. Keeping them for two whole weeks did not help me much on the capital gain. Some stocks did well, especially Commercial Net Lease Realty Inc. (NNN), it had been up since I bought it. However, Staples Inc. (SPLS) had been down. I finally sold the rest of SPLS, under the circumstance of losing \$35.00. I had a chance to sell SPLS without lost, but I missed it. I ended up with selling it pretty close to original price. I lost \$191.00 for UNEWY, United Business Media PLC. SPLS and UNEWY were the examples that I lost money because I had been holding them for too long. The following tables displayed a history of my transaction of the fourth week.

**Table 5-6: Week 4 Stock Trading**

Sym	Quantity	Buy Price	Sell Date	Sell Price	Profit
<u>OHI</u>	200	10.17	2/9/2004	10.82	+110.00
<u>IDSA</u>	100	4.47	2/9/2004	7.401	+273.10
<u>SPLS</u>	50	26.38	2/9/2004	26.069	-35.55
<u>ELAM</u>	400	2.14	2/9/2004	2.49	+120.00
<u>SRXA</u>	500	5.38	2/10/2004	5.46	+20.00
<u>UNEWY</u>	300	10.4	2/10/2004	9.83	-191.00
<u>ITN</u>	200	11.97	2/10/2004	11.69	-76.00
<u>TASA</u>	300	2.85	2/11/2004	3.15	+70.00
<u>DIGI</u>	600	2.56	2/11/2004	2.69	+58.00
<u>TASA</u>	300	3.04	2/11/2004	3.15	+13.00
<u>ULTE</u>	100	7.55	2/11/2004	7.57	-18.00
<u>SRXA</u>	500	5.38	2/11/2004	5.62	+100.00
Total:					+443.55

OHI - Omega Healthcare Investors Inc.

IDSA - Industrial Services of America Inc.

SPLS - Staples Inc.

SRXA - SR Telecom Inc.

ELAM - Elamex SA de CV

ULTE - Ultimate Electronics Inc.

UNEWY - United Business Media PLC

ITN - InterTan Inc.

TASA - Touchstone Applied Science Associates

DIGI - Digital Impact Inc.

I also invested more stocks for this week as well. I bought seven more stocks and 300 shares average for each. I decided to sell ITN, instead of keeping losing money. I thought it would be better if I bought those shares again at a lower price. So far, I had not lost too much, neither did I do very well. I invested these stocks base on three months basic charts from Yahoo.com. The prices for half of the stocks price were not steady. The market was still fluctuating. It affected some of my holdings like MeriStar Hospitality Copr. Inc. MHX appeared to be the worst so far. I thought I bought those stocks at pretty low prices. But when the market kept sliding, I felt depressing.

**Table 5-7: Week 4 Portfolio Holding**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Chg	%Equity
<u>NNN</u>	L	100	17.9	18.92	1.0200	1892.00	92.00	5.70	3.77
<u>ULTE</u>	L	100	6.97	7.21	0.2400	721.00	14.00	3.44	1.44
<u>CMPP</u>	L	100	8.54	9.32	0.7800	932.00	68.00	9.13	1.86
<u>ULTE</u>	L	100	7.55	7.21	-0.3400	721.00	-44.00	-4.50	1.44
<u>FUR</u>	L	100	2.5	2.86	0.3600	286.00	26.00	14.40	0.57
<u>BFLY</u>	L	100	4.04	4	-0.0400	400.00	-14.00	-0.99	0.80
<u>GTA</u>	L	500	2.23	2.34	0.1100	1170.00	45.00	4.93	2.33
<u>VSR</u>	L	600	3.5	3.49	-0.0100	2094.00	-16.00	-0.29	4.18
<u>CTGI</u>	L	600	5.1	5.35	0.2500	3210.00	140.00	4.90	6.40
<u>FUR</u>	L	300	2.87	2.86	-0.0100	858.00	-13.00	-0.35	1.71
<u>ITN</u>	L	300	11.69	11.6	-0.0900	3480.00	-37.00	-0.77	6.94
<u>MHX</u>	L	300	6.67	5.92	-0.7500	1776.00	-235.00	-11.24	3.54
<u>IRS</u>	L	500	9.7	9.9	0.2000	4950.00	90.00	2.06	9.87

VSR: Versar Inc.

DIGI: Digital Impact Inc.

FUR: First Union Real Estate Equity &  
Mortgage Investments

ITN: InterTan Inc.

MHX: MeriStar Hospitality Corp Inc.

CTGI: Capital Title Group Inc.

IRS: Inversioner y Representaciones SA

#### Summary for Week 4:

As I planed, I made \$443.55 profit for this week. I sold those stocks that performed well for the past two weeks, and made at least a hundred dollar profit. This was far away from my original gold, but I thought the only solution for an inefficient market. I sold some stocks at a lower price because I didn't want to lose more. I had many transactions during the week. They consisted of at least half of the transactions on my transaction history report. From the experience from SPLS, I decided to avoid hold a stock for very long time. I planned to try this strategic on other stocks and compare how much profit I could make for next week.

## 5.5 Grace's Week 5 Trading Diary (Feb. 17 – Feb. 20, 2004)

### Goal of the Week

Since our competition was going to end on Feb. 27, 2004, I could not hold stocks for a long period of time. I sold at least 10 stocks last week and made \$443.55 profit. I was going to sell more of my stocks for this week as well. Compare to the market performance in the third week (Feb. 2 – Feb. 6, 2004) and the fourth week (Feb. 9 – Feb. 13, 2004), during the third week, the stock market was sliding for most of the time, but started to rise at the beginning of fourth week. Even if I did not make as much profit as I expected, it was good chance to familiarize with the market.

### Activities

Since Monday was the Presidents' Day, this was another short week to trade the stocks. The Service Industry went down to amid the whole stock market. There were a few pick time to sell, I ordered four stocks to sell at limited price. Following is the table of the open orders:

**Table 5-8: Week 5 Stock Order**

Sym	Quantity	Sell Price
TWTR	200	11.00
VSR	600	3.70
GTA	500	2.60
MHX	300	7.00

However, none of the four orders went through a transaction. I sold Blockbuster Inc. (BBI) with \$-119.00 profit. I wanted to sell stocks, which had not been performed very well, before its price went down. I was holding more than 200 shares for each stock. If I could hold them for more than a week, they were possible to be sold at my desired price.

**Table 5-9: Week 5 Stock Trading**

Sym	Quantity	Buy Price	Sell Date	Sell Price	Profit
<u>BBI</u>	300	16.68	2/20/2004	16.35	-119.00
Total:					-119.00

BBI - Blockbuster Inc.

As seen on the Portfolio Holding table, I invested two more stocks, Tweeter Home Entertainment Group Inc. (TWTR) and Eline Entertainment Group Inc. (EEGI) during the fifth week. These two stocks had good performance and I could see the possibilities to make profit from TWTR and EEGI for next week. Unfortunately, at the end of the fifth week, EEGI went down unexpectedly. It was the second biggest share I had in my portfolio. Same as CTGI and MHX, I could have sold CTGI at beginning of week 5.

**Table 5-10: Week 5 Portfolio Holding**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Chg	%Equity
<u>NNN</u>	L	100	17.9	19.11	1.2100	1911.00	111.00	6.76	1.89
<u>ULTE</u>	L	100	6.97	7.11	0.1400	711.00	4.00	2.01	1.45
<u>CMPP</u>	L	100	8.54	9.15	0.6100	915.00	51.00	7.14	1.86
<u>ULTE</u>	L	100	7.55	7.11	-0.4400	711.00	-54.00	-5.83	1.45
<u>FUR</u>	L	100	2.5	2.85	0.3500	285.00	25.00	14.00	0.58
<u>BFLY</u>	L	100	4.04	3.89	-0.1500	389.00	-25.00	-3.71	0.79
<u>GTA</u>	L	500	2.23	2.26	0.0300	1130.00	5.00	1.35	2.30
<u>VSR</u>	L	600	3.5	3.43	-0.0700	2058.00	-52.00	-2.00	4.18
<u>CTGI</u>	L	600	5.1	4.65	-0.4500	2790.00	-280.00	-8.82	5.67
<u>FUR</u>	L	300	2.87	2.85	-0.0200	855.00	-16.00	-0.70	1.74
<u>ITN</u>	L	300	11.69	11.7	0.0100	3510.00	-7.00	0.09	7.14
<u>MHX</u>	L	300	6.67	6	-0.6700	1800.00	-211.00	-10.04	3.66
<u>IRS</u>	L	500	9.7	9.75	0.0500	4875.00	15.00	0.52	9.91
<u>TWTR</u>	L	200	10.51	10.402	-0.1080	2080.00	-31.60	-1.03	4.23
<u>EEGI</u>	L	500	8.75	8.2	-0.5500	4100.00	-285.00	-6.29	8.34

NNN - Commercial Net Lease Realty Inc.

ULTE - Ultimate Electronics Inc.

CMPP - Champps Entertainment Inc.

BFLY - Blufly Inc.

VSR - Versar Inc.

GTA - Golf Trust of America Inc.

CTGI - Capital Title Group Inc.

ITN - InterTan Inc.

MHX - MeriStar Hospitality Corp. Inc.

IRS - Invesiones Representcion SA

EEGI - Eline Entertainment Group Inc.



FUR - First Union Real Estate Equity &  
Mortgage Investments

TWTR - Tweeter Home Entertainment  
Group Inc.

### **Summary for Week 5:**

As you can see from the Portfolio Holding table, half of my stocks were below the buy price. Especially CTGI, MHX and EEGI, which are the major stocks that I need to worry about for next week. One of the rules for this experiential study was that we only had 6 weeks to compete each other. The next week was the last chance to trade our stocks. From the news from Yahoo Finance, the stock market was predicted to be better for the next week. I would try to sell all my holdings even if I lost my money. I would be willing to make sells at prices below the buy prices

## 5.6 Grace's Week 6 Trading Diary (Feb. 23 – Feb. 27, 2004)

### Goal of the Week

This was the last week of our competition. I had to sell all of my stocks by the end of week 6. Since stock market was not doing well from last week, I would not make much profit for this week. Most of the stocks had been held from week 4 or week 5; NNN was only stock from week 1. Stocks that I bought from week 4 and at beginning of week 5 were not doing well. I was not sure whether they would go up for this week. But I would keep an eye on the market.

### Activities

In general, week 6 stock market was better than the past week. But no much improvements in the Service Industry. As we knew, this was last week of our trading period; I could not hold stocks till markets got any better. I sold a few stocks at beginning of week 6, and kept holding a few that were not performing well.

**Table 5-11: Week 6 Stock Trading**

Sym	Quantity	Buy Price	Sell Date	Sell Price	Profit
<u>FUR</u>	300	2.87	2/23/2004	2.75	-56.00
<u>GTA</u>	500	2.23	2/25/2004	2.2	-35.00
<u>NNN</u>	100	17.9	2/25/2004	19.35	125.00
<u>IRS</u>	500	9.7	2/25/2004	9.82	40.00
<u>ITN</u>	300	11.69	2/26/2004	11.75	-2.00
<u>CMPP</u>	100	8.54	2/27/2004	8.8	6.00
<u>TWTR</u>	200	10.51	2/27/2004	10.75	28.00
<u>FUR</u>	100	2.5	2/27/2004	2.67	-3.00
<u>ULTE</u>	100	7.55	2/27/2004	7.18	-57.00
<u>BFLY</u>	100	4.04	2/27/2004	3.78	-46.00
<u>VSR</u>	600	3.5	2/27/2004	3.27	-158.00
<u>CTGI</u>	600	5.1	2/27/2004	4.26	-524.00
<u>MHX</u>	300	6.67	2/27/2004	6.08	-197.00
Total:					-879.00

NNN - Commercial Net Lease Realty Inc.  
 ULTE - Ultimate Electronics Inc.

CTGI - Capital Title Group Inc.  
 ITN - InterTan Inc.

CMPP - Champps Entertainment Inc.  
 FUR - First Union Real Estate Equity &  
 Mortgage Investments  
 BFLY - Blufly Inc.  
 GTA - Golf Trust of America Inc.  
 VSR - Versar Inc.

MHX - MeriStar Hospitality Corp. Inc.  
 IRS - Invesiones Representcion SA  
 MHX - MeriStar Hospitality Corp. Inc.  
 TWTR - Tweeter Home Entertainment  
 Group Inc.

As you could see from the following table, I could not sell all my stocks. Eline Entertainment Group Inc. (EEGI) is known as EEGI.OB from Yahoo Finance web site. This company changed their symbol to EEGI according to Yahoo. Yet Virtual Stock Exchange didn't updated the information in time. I made pre-order to sell on Monday (Feb. 23, 2004), 500 shares at \$9.30. The performance of EEGI was good on Monday and it went up to \$9.00 but it did not rise up to what I expected. Thus the order did not go through. I did not notice Eline Entertainment Group Inc. changed their symbols till the next day (Tues. Feb. 24, 2004). Due to the technical reason, I failed to sell EEGI before the market closed at the end of the week.

**Table 5-12: Week 6 Stock Holding**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Chg	%Equity
<u>EEGI</u>	L	500	8.75	8.7	-0.05	4350.00	-35.00	-0.57	8.87

EEGI - Eline Entertainment Group Inc.

I sent an email to VSE about this situation but their response did not help much. Since I could not make transaction for EEGI, I lost \$4350.00 from this week. For all the transaction I made this week including the EEGI stocks, I lost more than \$5,000.00. I had \$49,031.54 in total equity and \$44,681.54 in cash. During the six weeks of experiential study, I did not make any profit from this competition. But on the other side, I did not lose too much money even in the bad market. I invested stocks little by little

during the six weeks. I made small profit for each week. Comparing to the time period of our competition, I thought that my strategies were not bad, especially if I could implement them on long period stock trading. Stocks were not doing well at this moment, but in the future, it definitely would get better.

## **Chapter 6: A Six-Week Experiential Study by Miguel**

### **6.1 Miguel's Week 1 Portfolio Report (Jan. 19 – Jan. 24, 2004)**

#### **Goal of the Week**

This was the week when I started to trade stocks in the VSE website and to compete with my fellow IQP group members. Basically I pick stocks randomly. Sometimes if a company appeared frequently on the news or magazines recently, I would pick it as well. I chose stocks according to its lately performance and its earning gain. The strategy that I implemented was to follow the market by tracing news about the active stocks. I bought them at low acceptable prices

#### **Activities**

I gathered the information for the stocks by going on [finance.yahoo.com](http://finance.yahoo.com). I checked the most active stock list to decide which stocks to purchase. We had 50,000 hypothetical dollars to start with. Thus I tried to look for stocks that weren't too expensive. But sometimes stocks around 20 to 30 dollars became my candidates too. I tried to avoid expensive ones, which would cost 100 per share. Also if I decided to buy a high price stock, I would buy fewer shares thus to compensate the total cost. As of now, I did not lose much money in my portfolio. I didn't sell any of my holdings because I would like to wait for a big price soar for the stocks I held. I would determine whether to keep them or dump them depending on how much I gained or how much I lost. So far the loss was not that significant. So I decided to keep them till they rebounded. One of the important things to note is that for the stocks at JCOM, I did not buy them. Instead I used the option

sell short, which was more like gambling if the stocks fell. If it did as I expected, I would gain profit. As you could see, although the change was negative, I gained money.

**Table 6-1: week 1 portfolio Holdings**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Change	% Equity
<u>LU</u>	L	1000	4.49	4.11	-0.38	4110	-390	-8.67%	4.77
<u>EMA</u>	L	1000	2.97	2.64	-0.33	2640	-340	-11.4%	3.06
<u>PTN</u>	L	1000	3.5	3.94	0.44	3940	430	12.25%	4.57
<u>SNY</u>	L	100	38.21	37.01	-1.20	3701	-130	-3.39%	4.29
<u>SIRI</u>	L	1000	3.18	3.13	-.005	3130	-50	-1.31%	3.63
<u>CMGI</u>	L	1000	3.17	2.97	-0.20	2970	-200	-6.29%	3.44
<u>AMR</u>	L	500	17.15	17.12	-.003	8560	-25	-0.03%	9.93
<u>EK</u>	L	250	30.86	29.85	-1.01	7462.5	-262.5	-3.40%	8.65
<u>HYSL</u>	L	500	36.58	36.17	-0.41	18058	-215	-1.18%	20.94
<u>CPWR</u>	L	1000	8.21	8.25	0.04	8250	30	0.04%	9.57
<u>EMRG</u>	L	1000	3.89	3.6	-.29	3600	-300	-7.71%	4.17
<u>VTSS</u>	L	1000	8.76	8.78	0.02	8780	10	0.11%	10.18
<u>JCOM</u>	L	488	22.75	22.62	-0.13	11039.04	72.96	0.07%	12.80

LU - Lucent Technologies Inc.

EMA - eMagine Corp.

PTN - Palatin Technologie Inc.

SNY - Sanofi-Synthelabo.

SIRI - Sirius Satellite Radio Inc.

CMGI - CMGI Inc.

AMR - AMR Corp.

EK - Eastman Kodak Co.

HYSL - Hyperion Solutions Corp.

CPWR - Compuware Corp.

EMRG - eMerge Interactive Inc.

VTSS - Vitesse Semiconductor Corp.

JCOM - J2 Global Communications Inc.

### Summary for week 1:

Currently, the first week was not that bad to me, I was losing money, but not as much as I should worry about. I expected to see the stocks to rebound. I thought that as a newcomer, I picked too many stocks for my portfolio. It was getting hard for me to manipulate so many stocks at the same time. But I was getting more and more interested in this stock trading competition. I would try to change my strategy a bit to compensate for the next week.

## 6.2 Miguel's Week 2 Portfolio Report (Jan. 26 – Jan. 30, 2004)

### Goal of the Week

This was the second week of my stock trading. My goal for this week was to sell some stocks that I bought last week. With the cash I got from those sales, I could choose some new stocks.

### Activities

This was the second week of the stock trading. I sold JCOM, LU, and CPWR. LU and CPWR were the stocks whose prices went up. Their prices reached my pre-set price goal. But I also sold JCOM when its price was lower than my purchase price. According to its sliding down price curve and increasing transaction volume, I predicted that its price would keep falling. I did not do major changes to the other stocks in my portfolio because they were going down horribly. If I had sold them, I would have lost a lot of money. The only solution for my case was to invest it in a relatively long-term period and wait for the stock to rebound eventually. But in this case, we only have 6 weeks to invest.

As of week 2, my total equity had been going down. The market was not so good for me.

**Table 6-2: Week 2 Stock Tradings**

Sym	Quantity	Buy Price	Sell Date	Sell Price	Profit
<u>JCOM</u>	488	22.75	01/27/2004	23.51	-360.88
<u>LU</u>	1000	4.49	01/27/2004	4.56	+60.00
<u>CPWR</u>	1000	8.21	01/27/2004	8.24	+40
Total Profit					-260.88

JCOM - J2 Global Communications Inc.

LU - Lucent Technologies Inc.

CPWR - Compuware Corp.

**Table 6-3: Week 2 Portfolio Holdings**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Change	% Equity
<u>EMA</u>	L	1000	2.97	2.54	-0.43	2550	-440	-14.77	4.17
<u>PTN</u>	L	1000	3.5	3.61	0.11	3620	100	2.85	5.92
<u>SNY</u>	L	100	38.21	37.61	-0.60	3771	-70	-1.83	6.17
<u>SIRI</u>	L	1000	3.18	3.04	-0.14	3190	-150	-4.70	5.22
<u>CMGI</u>	L	1000	3.17	2.84	-0.33	2850	-340	-10.69	4.66
<u>AMR</u>	L	500	17.15	16.72	-0.43	8370	-225	-2.62	13.70
<u>EK</u>	L	250	30.86	29.57	-1.29	7402.5	-332.5	-4.30	12.11
<u>HYSL</u>	L	500	36.58	35.3	-1.28	17660	-650	-3.55	29.90
<u>EMRG</u>	L	1000	3.89	3.15	-0.74	3160	-750	-19.23	5.17
<u>VTSS</u>	L	1000	8.76	8.52	-0.24	8530	-250	-2.85	13.96

EMA - eMagine Corp.

PTN - Palatin Technologie Inc.

SNY - Sanofi-Synthelabo

SIRI - Sirius Satellite Radio Inc.

CMGI - CMGI Inc.

AMR - AMR Corp.

EK - Eastman Kodak Co.

HYSL - Hyperion Solutions Corp.

EMTG - eMerge Interactive Inc.

VTSS - Vitesse Semiconductor Corp.

**Summary for Week 2:**

Due to the sliding of the whole stock market, my portfolio went down too. There was not much I could do to save it. I could try to invest more but that could get me into deeper trouble. Like I said before, I think the best solution is to keep the stocks until they rebound, but that did not seem likely as of now.



### 6.3 Miguel's Week 3 Portfolio Report (Feb. 2 – Feb.6, 2004)

#### Goal of the Week

The goal of the third week was set similarly as the one for the second week. I would try to make some sells so that I could have the money to invest on those stocks that would have better future. An efficient market of the technology industry would be determinant to me.

#### Activities

The third week my stocks went down more than the second week, almost twice as bad. I did not sell any of my stocks because that could only cause larger loses for my equity. I hoped that by the third or fourth week, the prices for my stocks would go back up. I did not want to buy more stocks to replace the old ones, since most of the stocks in this industry were experiencing the same situation.

**Table 6-4: Week 3 Portfolio Holdings**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Change	% Equity
<u>EMA</u>	L	1000	2.97	2.39	-0.58	2390	-590	-19.53	5.37
<u>PTN</u>	L	1000	3.5	3.36	0.14	3360	-150	-4.00	7.56
<u>SNY</u>	L	100	38.21	36.86	-1.35	3686	-145	-3.53	8.29
<u>SIRI</u>	L	1000	3.18	2.8	-0.38	2800	-390	-11.95	6.30
<u>CMGI</u>	L	1000	3.17	2.75	-0.42	2750	-430	-13.25	6.18
<u>AMR</u>	L	500	17.15	16.05	-1.10	8250	-560	-6.41	18.04
<u>EK</u>	L	250	30.86	29.36	-1.50	7340	-392.5	-4.95	16.50
<u>HYSL</u>	L	500	36.58	34.28	-2.30	17140	-1160	-6.29	38.54
<u>EMRG</u>	L	1000	3.89	3.07	-0.82	3070	-830	-21.08	6.90
<u>VTSS</u>	L	1000	8.76	8.25	-0.51	8250	-520	-5.82	18.55

EMA - eMagin Corp.  
 PTN - Palatin Technologie Inc.  
 SNY - Sanofi-Synthelabo  
 SIRI - Sirius Satellite Radio Inc.  
 CMGI - CMGI Inc.

AMR - AMR Corp.  
 EK - Eastman Kodak Co.  
 HYSL - Hyperion Solutions Corp.  
 EMRG - eMerge Interactive Inc.  
 VTSS - Vitesse Semiconductor Corp.

### **Summary for Week 3:**

Once again, I got myself stuck in a situation that I could not get out of. I bought too many stocks and the prices were collapsing. I borrowed margin money and had to pay high interest rates like Lian. My strategy for next week would be selling my current holdings and starting fresh again by buying new stocks. I did not have time to wait for the stocks to rebound because we would only have as short as six weeks to simulate the investment.

## 6.4 Miguel's Week 4 Trading Diary (Feb. 9 – Feb.13, 2004)

### Goal for the Week

My goal of the forth week would be selling my current holdings and starting fresh again by buying new stocks. I only had two more weeks left in my trading practice. I did not have much time to wait the market to bounce back.

### Activities

The market did have any improvement. I kept most of the stocks that I owned. The philosophy that I tried to follow was to be patient and to keep my holding, so that no impulse decision would be made when I was emotionally depressed. According to the market, I predicted that the sooner I sold my stocks, the more money I would lose. On the other side, if I should hold my stocks in a longer time period, the more chances at the prices for the stocks could rebound to their original. I was hoping to see some up and down in the market. However, the six weeks time period made it very hard to be happening.

**Table 6-5: Week 4 Portfolio Holdings**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Change	% Equity
<u>EMA</u>	L	1000	2.97	2.68	-0.29	2680	-300	-9.76	5.86
<u>PTN</u>	L	1000	3.5	3.44	-0.06	3440	-70	-1.71	7.52
<u>SNY</u>	L	100	38.21	35.52	-2.69	3552	-279	-7.04	7.77
<u>SIRI</u>	L	1000	3.18	2.95	-0.23	2950	-240	-7.23	6.45
<u>CMGI</u>	L	1000	3.17	2.63	-0.54	2630	-550	-17.03	5.75
<u>AMR</u>	L	500	17.15	15.58	-1.57	7790	-795	-9.15	17.04
<u>EK</u>	L	250	30.86	28.83	-2.03	7207.5	-525	-6.67	15.76
<u>HYSL</u>	L	500	36.58	35.63	-0.95	17815	-485	-2.60	38.97
<u>EMRG</u>	L	1000	3.89	2.96	-0.93	2960	-940	-23.91	6.47
<u>VTSS</u>	L	1000	8.76	9.05	0.29	9050	280	3.31	19.79

EMA - eMagin Corp.  
PTN - Palatin Technologie Inc.

AMR - AMR Corp.  
EK - Eastman Kodak Co.

SNY - Sanofi-Synthelabo  
SIRI - Sirius Satellite Radio Inc.  
CMGI - CMGI Inc.

HYSL - Hyperion Solutions Corp.  
EMRG - eMerge Interactive Inc.  
VTSS - Vitesse Semiconductor Corp.

**Summary for Week4:**

My week four summary was similar to my week three summary, simply because I did not really trade any of my stocks. The market was so bad that there was not that much I could do. I was waiting for the stocks to rebound. Comparing the third and the fourth week, a couple stocks got better, but the majorities went down.

## 6.5 Miguel's Week 5 Trading Diary (Feb. 16 – Feb.20, 2004)

### Goal of the Week

This is fifth week of my stock trading. I tried to sell some stocks even at not so ideal prices so that I could buy some others to make my portfolio look better. I basically sold some stocks that had the lowest percent change since I thought that unlikely I would make big profit by keeping those stocks in such a short period of time.

### Activities

The stock being sold included: EMRG, CMGI, AMR, EMA, EK, and SIRI. However, the next day after I sold them, SNY, EK, AMR, and CMGI all increased values. Thus I decided to buy them back again. But ironically, a few days later, they all fell again and I lost even more money. I was back to where I started.

**Table 6-6: Week 5 Portfolio Holdings**

Sym	L/S	Quantity	Cost	Curr Price	Change	Curr Value	Gain/Loss	% Change	% Equity
<u>PTN</u>	L	1000	3.5	3.57	.07	3570	60	2.00	8.19
<u>SNY</u>	L	100	38.21	35.22	-2.99	3522	-309	-7.83	8.08
<u>HYSL</u>	L	500	36.58	34.82	-1.76	17410	-890	-4.81	39.92
<u>VTSS</u>	L	1000	8.76	8.47	0.29	8470	-300	-3.31	19.42
<u>CMGI</u>	L	1000	3.17	2.6	-0.57	2600	-110	-3.70	5.96
<u>AMR</u>	L	500	17.15	15.15	-2.00	7575	-400	-4.90	17.37
<u>EK</u>	L	250	30.86	28.75	-2.11	14375	-290	-1.91	32.96
<u>SNY</u>	L	445	36.32	35.22	-1.23	15,672.9	-548.45	-3.32	35.94

PTN - Palatin Technologie Inc.

SNY - Sanofi-Synthelabo

HYSL - Hyperion Solutions Corp.

VTSS - Vitesse Semiconductor Corp.

CMGI - CMGI Inc.

AMR - AMR Corp.

EK - Eastman Kodak Co.

**Table 6-7: Week 5 stock Tradings**

Sym	Quantity	Buy Price	Sell Date	Sell Price	Profit
<u>EMRG</u>	1000	3.89	02/18/2004	2.96	-930

<u>CMGI</u>	1000	3.17	02/18/2004	2.63	-540
<u>AMR</u>	500	17.15	02/18/2004	15.58	-785
<u>EMA</u>	1000	2.97	02/18/2004	2.68	-290
<u>EK</u>	250	30.86	02/18/2004	28.83	-507.5
<u>SIRI</u>	1000	3.18	02/19/2004	2.90	-280
Total Profit					-3332.5

EMRG - eMerge Interactive Inc.  
CMGI - CMGI Inc.  
AMR - AMR Corp.

EMA - eMagin Corp.  
EK - Eastman Kodak Co.  
SIRI - Sirius Satellite Radio Inc.

### Summary for Week 5

This week I was trying to get rid of some stocks that had the lowest earnings. But after I saw the tendency of their price soar, I bought them back again. However, they went down a couple days later. I basically ended up where I started.

## 6.6 Miguel's Week 6 Trading Diary (Feb. 23 – Feb. 27, 2004)

### Goal for the Week

This was the last week of the stock trading and my total came up to 43,011.51. I started with 50,000 so I lost 6988.49 in total for six weeks, which was pretty bad in my opinion. I basically kept most the stocks I started with and tried to wait it out, but time ran out because of the short term trading and I had to sell all my stocks on the last day, which was Feb, 27<sup>th</sup>.

### Activities

This was the final week of the stock trading and we all had to sell all our stocks and I lost about 6,000 dollars in total because I had to sell my stocks and I did not have the time to wait the bad market situation past. I think the best thing to do in my case was to hold on to the stocks and wait till eventually that their prices go up if the schedule allowed.

**Table 6-8: Week 6 Stock Trading**

Sym	Quantity	Buy Price	Sell Date	Sell Price	Profit
<u>PTN</u>	1000	3.5	02/28/2004	3.8	300
<u>SNY</u>	1000	38.21	02/28/2004	34.3	-391
<u>HYSL</u>	500	36.58	02/28/2004	35.74	-555
<u>VTSS</u>	1000	8.76	02/28/2004	7.99	-770
<u>CMGI</u>	1000	3.17	02/28/2004	2.4	-770
<u>AMR</u>	500	17.15	02/28/2004	15.2	-975
<u>EK</u>	500	30.86	02/28/2004	28.54	-1160
<u>SNY</u>	455	36.32	02/28/2004	34.3	-919.1
Total Profit					-5240.1

PTN - Palatin Technologie Inc.  
SNY - Sanofi-Synthelabo  
HYSL - Hyperion Solutions Corp.  
VTSS - Vitesse Semiconductor Corp.

CMGI - CMGI Inc.  
AMR - AMR Corp.  
EK - Eastman Kodak Co.  
SNY - Sanofi-Synthelabo

### Week 6 summary:

My trading simulation turned out to be a total disaster because I lost so much money in such a short given amount of time. And also because of the fact of the short week, I did not really have a chance to get my stock up. I thought that if given the right amount of time, I could hold the stocks until they rebound, or at least hold them and invest in something else. I also thought that it was unfortunate that the stock market plundered around one week before our experiential study ended. That was the reason that all my stocks went so low and I lost so much money.



## **Chapter 7: Summaries and Conclusions**

The experiential study ended up with  $-6.79\%$  total return for Lian's account,  $-1.94\%$  total return for Grace's account, and  $-13.98\%$  total return for Miguel's account. Grace was the winner of the competition. Through the stock trading results and transaction histories in three separate portfolios, we noticed an interesting phenomenon. The personality of the investor had dominant influence on his/her investment decision-making. This influence was so strong that even when the investor switched from one strategy to another, it still manipulated his/her general trading style, furthermore affected the final stock earnings.

### **7.1 Investment Methods and Strategies Comparison:**

The investing strategies each of us implemented were distinct. Lian was the most aggressive investor; Grace appeared to be the most conservative; Miguel seemed between neutral and aggressive.

Lian was very interested in small capital stocks. As side effects of small capital, those stocks usually had smaller daily trading volume yet bigger risk index. Their current costs were relatively low comparing to the stocks possessed huge market capital. Therefore, their fluctuation appeared to be much more volatile than big capital stocks. The P/E ratios for those stocks were usually low, sometimes even hard to predict. A lot of them had negative assets return. These characteristics decided that they should be avoided for long-term investment. However, they were on the top of the most active stock list. Their obvious cyclical characteristic had tremendous contribution to short-term investment. Lian didn't have much diversification in her portfolio. Most of the

time, she held four to five stocks at one time. She never feared to pick up more shares of stocks, especially those most active ones, when the market was going down. Although the decreasing of her margin borrowing ability constrained her purchase power, the continuous implementation of this strategy effectively lowered her average cost. As a result, at the end of the trading period, she successfully minimized the loss in the total equity even under a tanking financial industry market. With more and more trading experience, she started to show the ability of catching golden moments when the stock price swung. All her stock investment was long positions. It showed that she was more comfortable with bull market. She showed the surest hand personality during the downturn, and approached the market not as a gamble, but as a business phenomenon. She was definitely a risk-seeker.

Miguel was an aggressive risk-seeker too. But unlike Lian, Miguel was more interested in big capital stocks from well-known technical corporations. His portfolio consisted of half low price stocks and half mid-price stocks. Most of his holdings used to have magnificent performance before the recession that started from the beginning of the new Millennium. However, since he was focused on the technology industry, which hadn't totally recovered from the collapse in the past three years, most of the stocks he picked were still over weighted according to the financial analysts. Thus Miguel's portfolio performance was largely influenced by the trend of the Nasdaq. To adapt to the market, he implemented sell short and buy to cover strategies to decrease the loss. This showed that he was comfortable with both bull and bear market. However, the loss in Nasdaq during the last two weeks of our trading period inflicted heavy casualties on his margin borrowing ability. He was the type of investor that wouldn't dump the stocks

sooner after their price slide. Usually he held onto the mutual longer, in an attempt to outlast the downturn. Thus an efficient market and a longer investing time period are critical to him.

Grace was definitely the winner in our competition. She could be considered as a very conservative investor. Under the inefficient market, her loss was kept to the minimum by very careful investment. She had the most diversified portfolio among three of us. She invested almost equal amount of money on each stock, thus effectively lowered the risk index. But as a consequence, lower risk decrease the possibility of capital gain. As a risk-averser, Grace tried to perform very frequent transactions when the stock had small soar on the price. It was hard to find magnificent capital gain in her transaction history, but the small profits did accumulated to form her total equity gain. Like Lian, who rarely implemented sell short and buy to cover, Grace's mainly invested in long positions. Thus an efficient market was critical to her. She was a make-me-safe investor, who sought guarantees. Buying small amount of stock for each company and ensuring low returns were her major strategies through the trading.

## **7.2 Concluding Remarks**

The background knowledge research in the C term, 2003 built us foundation for understanding the U.S. stock market; while the six-week experiential study familiarized us with the real stock trading. We practiced varies strategies like dollar-cost-averaging, diversifying portfolio holdings, setting time goal for the invests, contrarian strategy, selling short and buying to cover as well as short term buying and selling, etc. According to the performance of our individual portfolios, we adjusted our strategies and developed

new goals and methods to accommodate the new situations. The competition and the collaborate feature provided by Virtual Stock Exchange website allowed us to learn from other's gain or lost.

Through the six-week's experiential study, we concluded that stock was a long-term investment. Differed from gambling, stock investment was a serious business required sharp market acumen, solid background knowledge and abundant real market trading experience. Investing personality played important role in the trading activities. Part of it originated from the investor's natural characteristics; the other could be accumulated from the trading activities in the real market. Although six weeks were relatively short for us to analysis all the situations in stock trading, and the volatile market really challenged us as novice, all of us gained experience and confidence toward stock investment. Our endurance for a turbulent market was built stronger and stronger.

However, one important element could not be ignored from our investing result. It had been affecting with our decision making and situation judgments, most of the time without being noticed. We were investing in a stock trading simulation website by using the hypothetical money provided. The pressure we were facing when we lost money should be considered lighter than if we were investing with our own savings. Might Grace be even more conservative in real life situation? Would Lian and Miguel still be so aggressive when we were dealing with our real dollars? Or would all of us go to another extreme - becoming crazier when seeing our equity shrank day after day? One useful lesson we learnt from this Interactive Qualifying Project was to control our mood and try to keep sober-minded when investing in stock market.

It could be very risky and dangerous to devote us into the stock market without understanding it. This Interactive Qualifying Project provided us a wonderful opportunity to carry out the book knowledge with the real society. We would definitely be benefited from this treasured experience.

## Appendix A-1: 30 Companies Currently Compose DJIA

Company Name	Symbol
Alcoa Inc.	AA
American Express Co.	AXP
AT & T Corp.	T
Boeing Co.	BA
Caterpillar Inc.	CAT
Citigroup Inc.	C
Coca-Cola Co.	KO
DuPont Co.	DD
Eastman Kodak Co.	EK
Exxon Mobil Corp.	XOM
General Electric Co.	GE
General Motors Corp.	GM
Hewlett-Packard Co.	HWP
Home Depot Inc.	HD
Honeywell International Inc.	HON
Intel Corp.	INTC
International Business Machines Corp.	IBM
International Paper Co.	IP
J. P. Morgan & Co.	JPM
Johnson & Johnson	JNJ
McDonald's Corp.	MCD
Merck & Co., Inc.	MRK
Microsoft Corp.	MSFT
Minnesota Mining & Manufacturing Co.	MMM
Philip Morris Companies Inc.	MO
Procter & Gamble Co.	PG
SBC Communications Inc.	SBC
United Technologies Corp.	UTX
Wal-Mart Stores, Inc.	WMT
Walt Disney Co.	DIS

## Appendix A-2: Top NYSE Stocks By Dollar Value

2002 Rank	Issue (symbol) (2001 rank)	2002 dollar volume (In millions)	2002 Rank	Issue (symbol) (2001 rank)	2002 dollar volume (In millions)
1	General Electric Company (GE) (2)	\$160,473	26	Morgan Stanley (MWD) (16)	56,504
2	International Business Machines (IBM) (1)	150,066	27	Wells Fargo & Company (WFC) (43)	55,050
3	Citigroup Inc. (C) (4)	145,161	28	Eli Lilly and Company (LLY) (26)	52,389
4	Tyco International (TYC) (7)	117,919	29	Pharmacia Corporation (PHA) (30)	52,097
5	Pfizer Inc (PFE) (5)	115,292	30	Pepsico, Inc. (PEP) (42)	51,863
6	Wal-Mart Stores (WMT) (12)	103,178	31	SBC Communications (SBC) (24)	51,571
7	Johnson & Johnson (JNJ) (10)	98,076	32	Chevron Texaco Corporation (CVX)	49,925
8	Bank of America Corporation (BAC) (15)	96,063	33	General Motors Corporation (GM)	49,626
9	American Int'l Group, Inc. (AIG) (8)	94,698	34	Freddie Mac (FRE) (38)	49,197
10	Exxon Mobil Corporation (XOM) (9)	94,000	35	Abbott Laboratories (ABT)	47,030
11	Merck & Co. (MRK) (11)	80,928	36	Wyeth (WYE)	46,712
12	AOL Time Warner Inc. (AOL) (3)	79,907	37	Royal Dutch Petroleum Company (RD)	46,450
13	Philip Morris Companies (MO) (19)	79,069	38	United Health Group (UNH)	45,137
14	Home Depot, Inc. (HD) (21)	78,713	39	Nokia Corporation (NOK) (17)	44,621
15	Goldman Sachs Group (GS) (25)	76,766	40	Household International, Inc. (LOW)	44,374
16	Procter & Gamble Company (PG) (35)	73,912	41	Northrop Grumman Corporation (NOC)	43,200
17	Fannie Mae (FNM) (20)	70,004	42	Lowe's Companies, Inc. (LOW)	42,369
18	J.P. Morgan Chase & Co. (JPM) (13)	67,080	43	AT & T Corp. (T) (31)	41,868
19	Merrill Lynch & Co. (MER) (18)	62,853	44	Micron Technology, Inc. (MU) (23)	41,734
20	3M Company (MMM) (39)	62,794	45	American Express Company (AXP) (37)	41,298
21	Viacom Inc. (VIA.B) (27)	60,755	46	United Parcel Service (UPS)	40,939
22	Verizon Communications (VZ) (28)	57,029	47	Electronic Data Systems (EDS)	39,855
23	Texas Instruments Incorporated (TXN) (14)	56,878	48	United Technologies Corporation (UTX)	39,307
24	Coca-Cola Company (KO) (40)	56,793	49	Schering-Plough Corporation (SGP) (29)	38,664
25	Bristol-Myers Squibb Company (BMY) (22)	56,666	50	Capital One Financial Corporation (COF)	38,619

## Glossary

**Bear Market:** A market in which prices of a certain group of securities are falling or are expected to fall. Although figures can vary, a downturn of 15%-20% or more in multiple indexes (Dow or S&P 500) is considered a bear market.

**Board of Directors:** Individuals elected by stockholders to establish corporate management policies. A board of directors makes decisions on major company issues and controls when dividends will be paid to stockholders.

**Book Value:** 1. The value at which an asset is carried on a balance sheet. In other words, the cost of an asset minus accumulated depreciation.  
2. The net asset value of a company. Calculated by total assets minus intangible assets (patents, goodwill) and liabilities.

**Bull Market:** A market in which prices of a certain group of securities are rising or are expected to rise.

**Capitalization:** 1. The sum of a corporation's stock, long-term debt, and retained earnings.  
2. A company's outstanding shares multiplied by its share price, better known as market capitalization.

**Corner:** 1. The act of securing enough controlling interest or ownership within a single security so that manipulation of price can occur.  
2. A rare situation occurring in commodity markets wherein the quantity of underlying securities and commodities available are exceeded by the commitments of delivery quantities on future contracts.

**Corporation:** The most common form of business organization. The total worth of the organization is divided into shares of stock, each representing a unit of ownership. A corporation is ongoing and the owners face only limited liability.

**Derivatives:** A security, such as an option or futures contract, whose value depends on the performance of an underlying security.

**Dividend:** A cash payment, using profits, announced by a company's board of directors and distributed among stockholders. Dividends may be in the form of cash, stock, or property. All dividends must be declared by the board of directors.

**Dow Jones Industrial Average – DJIA:** The Dow Jones Industrial Average is a price-weighted average of 30 significant stocks traded on the New York Stock Exchange and the Nasdaq. The DJIA was invented by Charles Dow back in 1896.



**Market Maker:** On the Nasdaq system, a broker-dealer willing to accept the risk of holding a particular number of shares of a particular security in order to facilitate trading in that security.

Each Market Maker competes for customer order flow by displaying buy and sell quotations for a guaranteed number of shares. Once an order is received, the Market Maker will immediately sell from their own inventory, or seek the other side of the trade until it is executed. This process takes place in mere seconds.

**Over The Counter (OTC):** A security which is not traded on an exchange, usually due to an inability to meet listing requirements. For such securities, brokers/dealers negotiate directly with one another over computer networks and by phone. The NASD carefully monitors their activities.

**Over The Counter Bulletin Board (OTCBB):** An electronic trading service offered by the NASD. Traditionally home to many small and micro cap companies, it is considered very high risk.

**Penny Stock:** A stock that sells for less than \$1 a share, although that may rise to as much as \$10/share as a result of heavy promotion. All of these stocks are traded OTC or on the pink sheets.

**Price-Earnings Ratio – P/E:** A valuation ratio of a company's current share price compared to its per-share earnings.

Calculated as:

$$P/E \text{ Ratio} = \text{Market Value per Share} / \text{Earnings per Share (EPS)}$$

EPS is usually from the last four quarters (trailing P/E), but sometimes can be taken from the estimates of earnings expected in the next four quarters (projected or forward P/E). A third variation is the sum of the last two actual quarters and the estimates of the next two quarters.

**Small-cap Stock:** Refers to stocks with a relatively small market capitalization. The definition of small-cap can vary among brokerages, but generally a company between \$300 million to \$2 billion in market cap is considered a small cap.

**Sole proprietorship:** A business organization that is unincorporated and has only one owner. The other two types of organizational structures are partnerships and incorporated companies.

**Stock broker:**

1. An individual or firm that charges a fee or commission for executing buy and sell orders submitted by an investor.
2. The role of a firm when it acts as an agent for a customer and charges the customer a commission for its services.
3. A licensed real estate professional who typically represents the seller of a property. A broker's duties may include: determining market values, advertising properties for sale, showing properties to prospective buyers, and advising clients with regard to offers and related matters.

## Reference

- Barfot, Kalle. *Jinn of Quality and Risk*. 2003.  
<<http://radio.weblogs.com/0103811/2003/05/06.html>>
- Bukow, Bass Tiffany. *Investing Games for Kids*. 2003.  
<[http://www.ms.money.com/2001/12/14/investing\\_games\\_for\\_kids.htm](http://www.ms.money.com/2001/12/14/investing_games_for_kids.htm)>
- CBS Market Watch. 1997-2003 <<http://cbs.marketwatch.com>>
- Contrarian Investing Association. 2002-2004 <<http://www.contrarian-investing.com>>
- Education World, Inc. Website*. "Play a New Stock Market Game-for Teachers Only!"  
June 15, 2000. <[http://www.education-world.com/a\\_curr/curr240.shtml](http://www.education-world.com/a_curr/curr240.shtml)>
- Education World, Inc. Website*. "MainXed Teacher Stock Market Tournament." 2003.  
<[www.education-world.com](http://www.education-world.com)>
- Encyclopedia Website*. 2003. <<http://www.encyclopedia.com>>
- eWeek Enterprise and Review Website*. "Survival of the Fittest." June 25, 2001.  
<<http://www.eweek.com/article2/0,3959,1254438,00.asp?kc=EWLK10209KTX1K0100440>>
- Fama, F. Eugene. *Rethinking Stock Returns*. 1997.  
<<http://gsbwww.uchicago.edu/news/capideas/fall97/fama.htm>>
- FleetKids Website*. "FleetKids BuyLo SellHi Game." 2003. <[www.fleetkids.com](http://www.fleetkids.com)>
- Frank Russell Company. "What You Need to Know about Riding Out Stock Market Declines" 2003.  
[http://ei.russelllink.com/education/tipRidingStockMktDeclines04\\_01.htm](http://ei.russelllink.com/education/tipRidingStockMktDeclines04_01.htm)
- Infoplease Website*. 2000-2003. <<http://infoplease.com>>
- Investopedia Website*. 1999-2003. <<http://www.investopedia.com/university/stocks/>>
- Jason Van Bergen. *What Do You Need to Know About Stocks*. 2003.  
<[www.stocks.about.com](http://www.stocks.about.com)>
- Liberty Funds Distributor, Inc. Website*. "Money Games." 2003.  
<[www.younginvestor.com](http://www.younginvestor.com)>
- Lynch, Peter. *Beating the Street*. 2003 Simon & Schuster.

Makelainn, Esa. (1998) *Introduction to Economic Value Added, EVA*  
<<http://www.evanomics.com/intro/>>

*Marketocracy Website*. 2002. < <http://www.marketocracy.com/>>

O'Neil, J. William and O'Neil, William. *The Successful Investor: what 80million people need to know to invest profitably and avoid big losses*. McGraw-Hill Trader.

Russell Fund Distributors, Inc. *Understanding and Coping with Stock Market Behavior*.  
October 17, 2001  
<[http://ei.russelllink.com/education/tipUnderstandingAndCoping10\\_01.htm](http://ei.russelllink.com/education/tipUnderstandingAndCoping10_01.htm)>

*Stock Trak Portfolio Simulation website*, 2000.  
< <http://www.stocktrak.com> >

*Stock Charts Website*. 1999-2004. < <http://stockcharts.com/education>>

*The Stock Market Game Program Website*. "The Stock Market Game." 2003.  
<<http://www.smgww.org/>>

*Virtual Stock Exchange, Inc. Website*. 2003. <[www.virtualstockexchange.com](http://www.virtualstockexchange.com)>

*Yahoo Finance. Website*. "Yahoo Finance Investment Challenge." 2002.  
<<http://contest.finance.yahoo.com>>

*Yahoo! Inc. Homepage*. 2003. <<http://financ.yahoo.com>>