August 2006

Stock Market Trading

Meng-Yu Ni
Worcester Polytechnic Institute

Follow this and additional works at: https://digitalcommons.wpi.edu/iqp-all

Repository Citation

This Unrestricted is brought to you for free and open access by the Interactive Qualifying Projects at Digital WPI. It has been accepted for inclusion in Interactive Qualifying Projects (All Years) by an authorized administrator of Digital WPI. For more information, please contact digitalwpi@wpi.edu.
Stock Market Trading

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

___________________________________________
Meng-Yu Ni

Date:
August 2006

Approved by:

__________________________
Professor Dalin Tang
Project Advisor
Abstract

Using the information from the internet and published books, a general understanding about stock market and trading strategies was obtained. The knowledge and trading strategies were applied in the market in a stock market simulation to get real-time trading experience. Experiences learned from using trading methods in this simulation will help me to become a better investor in the future.
Acknowledgement

First, I want to thank my parents who gave me the opportunity to study at Worcester Polytechnic Institute in USA. Second, I would like to thank my advisor, Dalin Tang, who gave me advices, and help me during this whole project time. Thirdly, I want to thank Worcester Polytechnic Institute for giving me opportunity to do this project, which made me to learn more things from outside of classes by myself. Finally, I would like to thank all the people who gave me some help when I needed it.
# Table of contents

Abstract.................................................................................................................................................. 2  
Acknowledgement.................................................................................................................................. 3  

Chapter I  Introduction .......................................................................................................................... 8  
1.1 The objective of this project ........................................................................................................... 8  
1.2 Basics of the stock market ............................................................................................................. 9  
1.3 Three main exchanges in USA ....................................................................................................... 10  

Chapter II  Trading Methods in the Stock Market ............................................................................ 11  
2.1 Stock market trading method ........................................................................................................ 11  
2.2 Short-term trading method ............................................................................................................ 12  
2.3 Intermediate-term trading method ............................................................................................... 13  
2.4 Long-term trading method ............................................................................................................ 14  
2.5 Doubling the Dow ......................................................................................................................... 14  
2.6 Recognizing the Risks .................................................................................................................. 18  

Chapter III  Selecting Companies ....................................................................................................... 19  
3.1 Way to invest .................................................................................................................................. 19  
3.2 Investing ......................................................................................................................................... 20  
    3.2.1 Growth Investing ..................................................................................................................... 20  
    3.2.2 Value Investing ....................................................................................................................... 21  
    3.2.3 Combining growth investing and value investing ................................................................. 22  
3.3 Finding companies ........................................................................................................................... 23  
    3.3.1 Fundamental analysis ............................................................................................................. 23  
    3.3.2 Technical analysis ................................................................................................................... 24  
3.4 Selected companies ........................................................................................................................ 24  
    3.4.1 EI DuPont de Nemours & Co. (DD) ....................................................................................... 25  
    3.4.2 General Motors Corporation (GM) ....................................................................................... 26  
    3.4.3 Pfizer Inc. (PFE) .................................................................................................................... 27  
    3.4.4 Verizon Communications Inc. (VZ) ....................................................................................... 28
Figures:

Figure 1: 1 year chart of E.I. DuPont de Nemours & Co. ........................................ 25
Figure 2: 1 year chart of General Motors Corporation ........................................ 26
Figure 3: 1 year chart of Pfizer Inc. ........................................................................ 27
Figure 4: 1 year chart of Verizon Communications Inc. ........................................ 28
Tables:

Table 1: 30 Dow Companies and symbols ................................................................. 15
Table 2: Trading of the first week ............................................................................. 31
Table 3: Trading of the second week ....................................................................... 32
Table 4: Trading of the third week ........................................................................... 33
Table 5: Trading of the fourth week ......................................................................... 34
Table 6: Earning/losing of this simulation ............................................................... 35
1.1 The objective of this project

My objectives for this project are: a) get information from the research to learn more about the stock market; b) investigate the effects of the trading stratagem through the process of the trading simulation; c) understand the process and get more experiences of simulating investment in stock market.

First, I have to find out what the stock market is and how the stock market works by doing some research. After that, I will select some companies that I wish to invest. I will use stock market methods to practice simulated market investment. The total price of the simulation for this project is around $100,000 USD. I only have two months for doing this project, and one month for the simulation within those two months, so the short term investment will be in charge for this project. During the simulation time, I will be trading around 10 stocks that I have chosen from different companies. After the simulation, the analysis will be made from this experiment. No matter the investment is success or failure, the experiment is gaining from this simulated investment. Last, I will summarize everything from this project in order to write the conclusion. Happy ending, gaining money from investment, is what I wish to have.
1.2 Basics of the stock market

Why people want to trade in the stock market, because everyone can make money through the stock market by using phone call or using internet from computer. Why stocks are good investments, because they can let you to own successful companies, and they have been the best investment over time. You can have equity in your home by owning its stock, so stocks are also called equities. Investing in stocks can help both investor and company. The stocks you have owned make you an owner of a company. Owning stocks is a good idea, because when a company prospers, so do the owner of the company: you. Company wants you to buy its stocks because it wants to use your money to develop better products, get new equipments, and expand its operations [1].

When the stock is bought and sold, this is called trading. Now, trading can be down in a second by making a phone call, or using the internet by clicking the mouse. People were trading stocks by using papers before, but now, the world is becoming more electrical world, trading becomes more electrical.

You can make money by owing stocks is through the capital appreciation and dividends. The dividend is pay by company every quarter year. There are only two months for this project, so it is impossible to get the dividends for the simulation investment of this project. The method of making money through capital appreciation is
to buy at low price and sell it at high. In this case, the total return is the money I make from the stocks’ capital appreciation.

1.3 Three main exchanges in USA

There are three main exchanges in the United States of America, which are the New York Stock Exchange (NYSE), the American Stock Exchange (AMEX or ASE), and the National Association of Securities Dealers Automated Quotation system (NASDAQ or OTC). Each of them provides a place for investors trading their stocks [1].

The NYSE is the biggest and oldest exchange of the three. To be listed on the NYSE, companies need to have at least 1.1 million shares of stock outstanding, 2.5 million or more of annual pre-tax profit, and 18 million of total worth. The AMEX or ASE is the exchange that is a little bit less demanding than the NYSE. To be listed on the AMEX or ASE, companies need to have at least 0.5 million shares of stock outstanding, 0.75 million or more of annual pre-tax profit, and 4 million of total worth. The NASDAQ or OCT is the most action exchange. It has become more prominent by trading high-tech companies. The OCT is stand for over-the-counter. To be listed on the NASDAQ or OCT, companies need to have at least 400 shareholders, 1 million or more of annual pre-tax profit, and 8 million of total stock outstanding worth.
Chapter II  Trading Methods in the Stock Market

Before investing on the companies, you have to define your goal is long term or short term. The answer of this question is very important because the stocks can be great or bad choices for you, depends on the time you are looking at. In this chapter, I will discuss about the short term, intermediate term, and long term investment very briefly. I will also introduce Doubling the Dow because it is also a great way for investment. We have to understand the stock market trading method before the simulation. Also, we need to understand what kind of the risks that stock market can make before staring investment. As I have mention on the previous chapter, in this project, I am going for short term investment.

2.1 Stock market trading method

First, you have to find out how to make a trade by investing stocks. In a simple way to describe this is you can break down the investment into three steps. On the first step, you have to look for the stocks you are interest in, and decide the stocks you want to buy. On the second, you would like to keep you eye on the stocks you have invested. On the final, you have to find out the best time to sell you stocks.

You have to find out how long you would like to hold the stocks. Which kind of
terms your goal is. While you are holding the stocks, you would like to know any kind of news that are about the companies you have just invested. This news may change your decision of buying the stocks or selling them.

When the price is getting down, there are three options to do, buying, selling, or keep whatever you have. For buying more stocks when the price gets down, you can lower down the price of the stocks on your hand, so if the stocks climb back higher than the price you have, you may earn more. For selling the stocks you are holding when the price gets down, you can reduce the money you have just lost. You can also decide to keep your stocks longer, and sell it when the price is higher. These three options does not have right or wrong answers, it is all depended on your decisions [3].

2.2 Short-term trading method

Short-term is the period that is less than one or two yeas. If you do not have spare cash, or you are hurry to get some money for some payment, stay away from the stock market, and do not even think that stock market can solve the debt you have in short term. Because sometimes the stocks can be unexpected in the short term, it is not a good idea for short term consideration. A short term traders buy and sell the stocks very quickly, so the profit and loss they made from the stocks is not a lot. Day trading is to hold the stocks
within a day, Swing trading holds stocks within a few days, and position trading holds stocks within a few months [2,3].

2.3 Intermediate-term trading method

Intermediate-term is the period that is reached within five years. You have to watch out for intermediate-term investment, because not all the stocks are good investment for intermediate-term [3]. There are many types and kind of stocks. The stocks are from larger or established companies may be fairly stable and holds their values well. The stocks of untested companies may not do as well as like the stocks of larger or established companies.

If your goal is intermediate-term investment, you would like to choose larger, established companies or much needed industries of dividend-paying companies, which are like drink, food or electric companies. Dividend is a good income in intermediate-term. The company that pays the owner dividends has more stable stock prices as well.
2.4 Long-term trading method

Long-term is the period that is longer than five years. The long-term investments can beat out financial investments, which are like bonds or bank investments, in ten year period. But, even the stocks are shine in long term; you still have to do your homework to choose the right stocks. You can still lose money when the companies you have invested go out of business after a few years [3].

2.5 Doubling the Dow

The Dow dividend strategies is a way to beat the Dow. ProFunds had introduced a leveraged mutual fund, called UltraDow 30, in 2002. UltraDow 30 is not trying to beat the Dow by choosing the most undervalues companies, but leverages the whole Dow to double its performance. UltraDow 30 is not like the dividend strategies, which does not require trading annually. It is for making lower tax bill.

The Dow Jones Industrial Average (DJIA) was created by Charles H. Dow in 1884. The Dow is a benchmark in the whole stock market in United State. It is not a perfect one, but it is very popular cause of its simplicity. The Dow has the highest percentage returning in the stock market. Each of the 30 Dow companies is powerful enough to stand for its competitors which are not list on the Dow. The Dow is like a mini senate
representing the different parts of the United State’s economy.

<table>
<thead>
<tr>
<th>Company</th>
<th>Symbol</th>
<th>Company</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcoa</td>
<td>AA</td>
<td>Home Depot</td>
<td>HD</td>
</tr>
<tr>
<td>Altria Group</td>
<td>MO</td>
<td>Honeywell</td>
<td>HON</td>
</tr>
<tr>
<td>American Express</td>
<td>AXP</td>
<td>Intel</td>
<td>INTC</td>
</tr>
<tr>
<td>AT&amp;T</td>
<td>T</td>
<td>International Business Machines</td>
<td>IBM</td>
</tr>
<tr>
<td>Boeing</td>
<td>BA</td>
<td>International Paper</td>
<td>IP</td>
</tr>
<tr>
<td>Caterpillar</td>
<td>CAT</td>
<td>Johnson &amp; Johnson</td>
<td>JNJ</td>
</tr>
<tr>
<td>Citigroup</td>
<td>C</td>
<td>J.P. Morgan Chase</td>
<td>JPM</td>
</tr>
<tr>
<td>Coca-Cola</td>
<td>KO</td>
<td>McDonald's</td>
<td>MCD</td>
</tr>
<tr>
<td>Disney</td>
<td>DIS</td>
<td>Merck</td>
<td>MRK</td>
</tr>
<tr>
<td>DuPont</td>
<td>DD</td>
<td>Microsoft</td>
<td>MSFT</td>
</tr>
<tr>
<td>Eastman Kodak</td>
<td>EK</td>
<td>3M</td>
<td>MMM</td>
</tr>
<tr>
<td>ExxonMobil</td>
<td>XOM</td>
<td>Procter &amp; Gamble</td>
<td>PG</td>
</tr>
<tr>
<td>General Electric</td>
<td>GE</td>
<td>SBC Communications</td>
<td>SBC</td>
</tr>
<tr>
<td>General Motors</td>
<td>GM</td>
<td>United Technologies</td>
<td>UTX</td>
</tr>
<tr>
<td>Hewlett-Packard</td>
<td>HPQ</td>
<td>Wal-Mart Stores</td>
<td>WMT</td>
</tr>
</tbody>
</table>

Table 1: 30 Dow Companies and symbols

Each of company of the Dow uses billions of dollars for annual sales. The Dow represents the best of the big guns from the history. The companies of the Dow are pervading in all parts of our lives, and they do not disappear very easily. Dow companies are very strong and stable, so buying them at cheap price is a safe way to get good price. If the company is small or weak, buying at cheap price is not a good idea, and it can be dangerous, because the small company will fail or run out of the business when its price is very low. But, this is hardly happen in the Dow companies.
Dividend yield is a good way to look for the Dow companies that is undervalued. You should look at the dividend yield to determine cheap Dow stocks. The most effective strategies is buying the high dividend yield from large, good established companies. Determine the stock’s dividend yield by dividing its annual cash dividend (4 quarterly dividends) by its current price. Stock price drops makes a higher dividend yield. When the stock of Dow Company drops too low, the company will try to find the way out to make the price climbs back up to its former glory price to balance the average price.

High dividend yields are a good way to find the bargain stock prices. There are three steps of investing in high-yield Dow stocks. First, spend some time to find out who are the ten highest-yield Dow stocks. Second, invest all of these ten stocks or less. Then, you repeat the first two steps after a year, and sell the stocks that are no longer on your selecting list. This is an indeed investment strategy of researching once a year. There are five popular Dow dividend strategies, Dow 10, Dow high 5, Dow Low 5, Dow 4, and Dow 1. Let us say you have total $10,000 you want invest in Dow. Dow 10 is to invest an equal amount ($1,000) of these ten highest-yield Dow stocks. Dow High 5 is to invest ($2,000, which is twice larger than Dow 10) of the five highest-yielding of these ten stocks. Dow Low 5 is to invest ($2,000, same amount with Dow High 5) five lowest-priced of these ten stocks. Dow 4 is to invest 40 percent of your money ($4,000)
to second-lowest-priced stocks, and 20 percent of your money ($2,000) to each of third, fourth, and fifth-lowest-priced stocks. Dow 1 is to put all of you money ($10,000) on second-lowest-priced stocks. The reason of choosing second-lowest-priced stocks, but not the lowest-priced stocks, is because the lowest-priced stocks often face to big trouble. There is more risk in the lowest-priced stocks rather than the second-lowest-priced stocks.

**Formula 1:** \( \text{Dividend yield} = \frac{\text{annual cash dividend}}{\text{current price}} \)

There is another way to do doubling the Dow, which is looking for the company that has high dropping percentage of its price from one year ago. You may get different result with the one using high dividend yields. Invest the company that has the low percentage on the list. You can also use the Dow 10, Dow high 5, Dow Low 5, Dow 4, and Dow 1 on this method. Just remember the lowest percentage is the best you want.

**Formula 2:** \( \text{Percentage} = \frac{\text{current price} - \text{one year ago’s price}}{\text{current price}} \)
2.6 Recognizing the Risks

The risk in the stock market is very changeful. It happens suddenly and quickly. If you want your money to grow up faster, more risk you will have. Risk is all over our lives. You can not get rid of it, but you have to accept it. Understand the risk and get to know more about it, but not to be afraid of it. Before your investment, make your decision carefully, so your risk might get lower. There are lots of risks in the stock market. But, what you can do is to be careful about each movement of your investment, and lower down the risk you will get. Never think about that you are the luckiest person, and none of risks will happen on you.
Chapter III  Selecting Companies

Start to invest companies; there are few steps you need to follow. First, find the best way (broker) that fits your need of your investment. Second, find out the way of investing for your investment. Third, finding the method of evaluate stocks for you to pick stocks. Finally, get more information of the company that has been picked.

3.1 Way to invest

Before we start to invest companies, we have to find the easiest way for our investment. In nowadays technology, there are few ways to making a trade, which are internet, phone, and in person. You can go up to the internet, and go to the website you want to use. It will ask you to create an account for your online trading. You can also find the company who can be the broker (stockbroker) for you. Make a call to the person of this company, and tell him (her) what you would like to buy or sell. Then they will do the trading for you. You may find the person that is been a broker by his (her) own. He (She) has an office that you can talk to him (her) in person. Of cause, different kinds of broker has different price. Find the way that fits your need, and start the game.
Internet information:

www.etrade.com
www.ameritrade.com
www.fidelity.com

Here are three example websites for the internet trading. You can find more on the internet. If you do not know where to start, search on YAHOO (www.yahoo.com) or GOOGLE (www.google.com). This would be a good start to help you.

3.2 Investing

The most basic division of investing is growth investing and value investing. Most investors combine those two styles for their investment approach. Before the investment, thinking about what you need from growth investing and value investing. Use the investing that fits in your need.

3.2.1 Growth Investing

Investor who is a growth investor looks for the company that is sale and earnings. Growth investor is willing to pay for the company that has a lot of potential. In the growth investing, dividends are not that important because many of growth companies only pay small dividends or none. The growing company post bigger earning for each
year, so the earning amount should become bigger. Most new growth stocks are being traded on the NASDAQ.

Growth investor wants to search for hot hands, but not the bargains because they are willing to pay more for good companies. Many of growth investors do not care about the price of the stock because they know lots of growth stocks are very expensive. Growth investor only looks at the potential of the stocks and invests what they found. You are not able to find many bargains of growth stocks. Even growth stocks are expensive, but if they can keep growing that are worth it. The growth stock is depending on its earnings and the acceleration of the earnings to have high expectation of analysts and investors.

3.2.2 Value Investing

Another kind of investor is Value investor. Value investor looks for the cheap stocks. Value investor compares the prices of stocks by using different measurements of companies’ business, which are earnings, cash floe, assets, and sales volume. In the value investing, paying attention to dividends is important. The idea of value investing is paying less for what you get to lower down the chance of loosing money.

Value stock has a low price. Value companies have been on hard time or slump by some reasons. But hopefully, they will get back to the track again. Value investor is
buying the shares that climb up from the bottom. Value investor invests the company that is getting ready to start or recovering from the fall. So, value investor is a bargain hunter, who is opposite with growth investor. Value investor pays special attention to dividends. Value companies pay dividends to their investors. Even the price does not rise up, investor can still getting a small profit from the company. The dividend is also a great indicator for telling how the company is doing.

3.2.3 Combining growth investing and value investing

You do not have to use growth investing or value investing independently. You can combine the things you want or need from both growth investing and value investing. These two styles are the tools for you to use. If you know the way to use these tools together, it can become a better tool than either one of them. Remember, even you have use two styles together; it does no mean you will make more profits. Use them as a tool to helping you for success [1].
3.3 Finding companies

There are two ways for evaluating the stocks. One is fundamental analysis, and another one is technical analysis. Fundamental analysis is to get more information about the company’s health and potential to succeed. Fundamental analysis can make you learn more about the company. Technical analysis is to get the past behavior of the stock price, and tries to predict the stock’s future price by its current market condition, projected market condition, and trading volume [4,5]. Technical analysis can make you learn more about the company’s stock.

3.3.1 Fundamental analysis

When you use fundamental analysis to buy stocks, you own a piece of a corporation, not just a piece of paper. You are studying the corporation for you to decide which stock is a worthwhile investment. You should be able to pick the stocks that can give you the best chance for profits by using fundamental analysis. You would like to invest the stock that has a reasonable price when you compare to its earnings. Fundamental analysis is one of the most popular methods to determine the good bargain stocks. Fundamental analysis is just a tool that helps you to find and evaluate the stock that has offer good value. But this does not mean you can make a lot of money by using fundamental
analysis. This is giving you a chance to find out whether fundamental analysis is right for you.

3.3.2 **Technical analysis**

Technical analysis relies on charts and graphs of the stocks for helping you determine which stock to buy and sell. Technical analysis can also use to forecast the future. You can make assumption of what might happen in the future by looking at how the stock behaves in the past. Technical analysis is the study of the stock price. Technical analysis can be use by short-term investors to help them make decision for selling and buying. Keep in mind that no matter what method you use, there is no guarantee that you will make profit. It depends on how much work you put into these stock picking methods.

3.4 **Selected companies**

After you follow the steps to here, now, is time to getting known more about the companies that you have chosen from the result. You will want to get more information about the companies, and know what the companies are doing now. Here are few examples of what you would like to know about the companies.
3.4.1 **El DuPont de Nemours & Co. (DD)**

El DuPont de Nemours and Company is a science and technology company. This company has operated in six segments, which are safety and protection, pharmaceuticals, performance materials, and communication technologies. It has lots of different fields, which like electronics, synthetic fibers, biotechnology, safety and security, and materials science. This company is operating in the United States, Canada, Asia Pacific, Europe, and Latin America [5].

The chart shows below is the stock chart for this company, Figure 1. In this one year chart, you can see that the price is going down and up. The range of this chart is around 45 to 38. So if the price is at around 40, it might be a good chance to invest. Then, you can wait till the selling price hits 43.

![Figure 1: 1 year chart of El DuPont de Nemours & Co.](image)
3.4.2 General Motors Corporation (GM)

General Motors Corporation is a design and making automotive products. This company is a worldwide business company. It has operates in 2 segments, which are automotive, and financing and insurance operations. It sells it product in the United State, Mexico, Canada, and overseas.

The chart shows below is the stock chart for this company, Figure 2. In this one year chart, you can see that the price shape was going down, and now is starting to climb back up. It might have a good chance to get back to its previous price, which is around 35.

![Figure 2: 1 year chart of General Motors Corporation](chart.png)
3.4.3 Pfizer Inc. (PFE)

Pfizer Inc. has operated in three segments, which are consumer healthcare, human health, and animal health. It is a medical company for human and animals. It also does worldwide business. It produces many different kinds of medicines. Many of hospitals and pharmacy have business with it. This company is hard to be out of the business because human and animals need medicine when they are sick.

In the chart, you can see that it has been going down for a while. It might start to climb back when it hits around 21.

Figure 3: 1 year chart of Pfizer Inc.
3.4.4 Verizon Communications Inc. (VZ)

Verizon Communications Inc. is doing the communication services worldwide. The four segments that it has are domestic wireless, domestic telecom, international, and information services. It is a very big communication company in United States. Most of people have less one mobile phone on the hand in this world. As you can see, the communication is getting bigger and important for the human. It provides local communication and wireless communication in all the states of United States.

In its 1 year chart, you can see that it has started to climb up from 31. If you invest now, you might still have chance to wait it hits 35, which is not bad.
Chapter IV  Simulations

4.1 Simulation Methods

I wanted to invest the Dow companies for this simulation. Because of that I decided to combine two methods, which has introduced to you on 2.5 Doubling the Dow, together for choosing stocks. The formulas I had used on this simulation are Formula 1 and Formula 2.

**Formula 1:** Dividend yield = \( \frac{\text{annual cash dividend}}{\text{current price}} \)

**Formula 2:** Percentage = \( \frac{\text{current price} - \text{one year ago’s price}}{\text{current price}} \)

I used both formulas to rank the 30 Dow companies. And mark the top 10 companies from both results. Because my simulation is pretty short, I decided to apply doubling the Dow methods to the short term instead long term. I divide this simulation into four weeks, which is close to one month. On each beginning of the week, I did my calculation, and invest the company that I had picked. By the end of the week, if the price is higher 0.9 dollar than the price of my investment, I sold the stocks, but if not, I decided to hold them till next week.

I am not the person who always keeps eyes on the prices every second everyday. And I it is worth to waste a lot of time everyday to stay on the price for just hopping to earn a little bit more money. So the way that I used in this simulation, which is doing the
trading at the beginning and the ending of the term, is for the person who does not want to stay with the price everyday, or can not. This means, my trading was going on each beginning and ending of the week.

4.2 Trading Record

I am going to show my trading of this simulation in this section. I am doing this simulation on www.zacks.com. As I had mentioned, I divided one month term into four weeks. I will show you how I decided to invest these companies, and why I sold them or hold them, and the earning on each week.

4.2.1 Simulation week #1

I started my simulation investment on June 13, 2006. I made the calculation of the Dow companies by using these two methods. Because this was the first simulation week, I wanted to be safe of my money, and this was also my testing week to see the methods I applied to this works or not. I got both top 10 from each method, and looked for the company that speared twice on both list. I picked the companies that are on the both lists for the first week, which were El DuPont de Nemours & Co. (DD), General Motors Corporation (GM), Pfizer Inc. (PFE), and Verizon Communications Inc. (VZ). There were four companies I want to invest, and I did not want to invest all of my money on the
testing week, so I divided $100,000 into five parts, which is $20,000 each part. I divided 20,000 by the current price to get number of shares I want. But because I wanted to make my calculation easier, I choose the closest round number of the number I got. That was the way I decided how many shares I want.

The ending of this week is on June 21, 2006. On this day, DD and VZ were more than one dollar above the buying price, so I sold them out, and held GM and PEF. On the next day GM rose up around one dollar more, then I sold it and kept holding PEF. The earning of the first week was $2,982.00.

<table>
<thead>
<tr>
<th>Date</th>
<th>Symbol</th>
<th>Buy/Sell</th>
<th>Price</th>
<th>Share</th>
<th>Net Cost/Proceeds</th>
<th>Profit/Loss</th>
<th>Total Cash</th>
<th>Total Asset</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/13/2006</td>
<td>DD</td>
<td>buy</td>
<td>$40.08</td>
<td>400</td>
<td>$16,032.00</td>
<td>$0</td>
<td>$83,961.00</td>
<td>$99,993.00</td>
</tr>
<tr>
<td>06/13/2006</td>
<td>GM</td>
<td>buy</td>
<td>$25.24</td>
<td>700</td>
<td>$17,668.00</td>
<td>$0</td>
<td>$66,286.00</td>
<td>$99,986.00</td>
</tr>
<tr>
<td>06/13/2006</td>
<td>PEF</td>
<td>buy</td>
<td>$23.01</td>
<td>700</td>
<td>$16,107.00</td>
<td>$0</td>
<td>$50,172.00</td>
<td>$99,979.00</td>
</tr>
<tr>
<td>06/13/2006</td>
<td>VZ</td>
<td>buy</td>
<td>$31.36</td>
<td>500</td>
<td>$15,680.00</td>
<td>$0</td>
<td>$34,485.00</td>
<td>$99,972.00</td>
</tr>
<tr>
<td>06/21/2006</td>
<td>DD</td>
<td>sell</td>
<td>$42.14</td>
<td>400</td>
<td>$16,856.00</td>
<td>$824.00</td>
<td>$51,334.00</td>
<td>$100,789.00</td>
</tr>
<tr>
<td>06/21/2006</td>
<td>VZ</td>
<td>sell</td>
<td>$33.17</td>
<td>500</td>
<td>$16,585.00</td>
<td>$905.00</td>
<td>$67,912.00</td>
<td>$101,687.00</td>
</tr>
<tr>
<td>06/22/2006</td>
<td>GM</td>
<td>sell</td>
<td>$27.03</td>
<td>700</td>
<td>$18,921.00</td>
<td>$1,253.00</td>
<td>$86,826.00</td>
<td>$102,933.00</td>
</tr>
</tbody>
</table>

Table 2: Trading of the first week
4.2.2 Simulation week #2

I redid the calculation again on June 23, 2006. I invested the companies that were top 5 from each list, and the companies appeared twice of both list. I had invested AXP, CAT, GM, INTC, T, and VZ. There were six companies, so I divided 100,000 into six parts, around 16,666.

June 30, 2006 is the ending day of this week. Because all the stocks have the prices that is more than one dollar above the invest prices, I sold all of them out. The earning of this week is $3,887.50.

<table>
<thead>
<tr>
<th>Date</th>
<th>Symbol</th>
<th>Buy/Sell</th>
<th>Price</th>
<th>Share</th>
<th>Net Cost / Proceeds</th>
<th>Profit/Loss</th>
<th>Total Cash</th>
<th>Total Asset</th>
</tr>
</thead>
<tbody>
<tr>
<td>06/23/2006</td>
<td>AXP</td>
<td>buy</td>
<td>$52.59</td>
<td>250</td>
<td>$13,147.50</td>
<td>$0</td>
<td>$73,671.50</td>
<td>$102,926.00</td>
</tr>
<tr>
<td>06/23/2006</td>
<td>CAT</td>
<td>buy</td>
<td>$72.14</td>
<td>200</td>
<td>$14,428.00</td>
<td>$0</td>
<td>$59,236.50</td>
<td>$102,919.00</td>
</tr>
<tr>
<td>06/23/2006</td>
<td>GM</td>
<td>buy</td>
<td>$26.97</td>
<td>500</td>
<td>$13,485.00</td>
<td>$0</td>
<td>$45,744.50</td>
<td>$102,912.00</td>
</tr>
<tr>
<td>06/23/2006</td>
<td>INTC</td>
<td>buy</td>
<td>$18.00</td>
<td>800</td>
<td>$14,400.00</td>
<td>$0</td>
<td>$31,337.50</td>
<td>$102,905.00</td>
</tr>
<tr>
<td>06/23/2006</td>
<td>T</td>
<td>buy</td>
<td>$27.37</td>
<td>500</td>
<td>$13,685.00</td>
<td>$0</td>
<td>$17,645.50</td>
<td>$102,898.00</td>
</tr>
<tr>
<td>06/23/2006</td>
<td>VZ</td>
<td>buy</td>
<td>$32.83</td>
<td>400</td>
<td>$13,132.00</td>
<td>$0</td>
<td>$4,506.50</td>
<td>$102,891.00</td>
</tr>
<tr>
<td>06/30/2006</td>
<td>AXP</td>
<td>sell</td>
<td>$53.50</td>
<td>250</td>
<td>$13,375.00</td>
<td>$227.50</td>
<td>$17,874.50</td>
<td>$103,111.50</td>
</tr>
<tr>
<td>06/30/2006</td>
<td>CAT</td>
<td>sell</td>
<td>$74.45</td>
<td>200</td>
<td>$14,890.00</td>
<td>$462.00</td>
<td>$32,757.50</td>
<td>$103,566.50</td>
</tr>
<tr>
<td>06/30/2006</td>
<td>GM</td>
<td>sell</td>
<td>$29.68</td>
<td>500</td>
<td>$14,840.00</td>
<td>$1,355.00</td>
<td>$47,590.50</td>
<td>$104,914.50</td>
</tr>
<tr>
<td>06/30/2006</td>
<td>INTC</td>
<td>sell</td>
<td>$19.04</td>
<td>800</td>
<td>$15,232.00</td>
<td>$832.00</td>
<td>$62,815.50</td>
<td>$105,739.50</td>
</tr>
<tr>
<td>06/30/2006</td>
<td>PFE</td>
<td>sell</td>
<td>$23.68</td>
<td>700</td>
<td>$16,576.00</td>
<td>$469.00</td>
<td>$79,384.50</td>
<td>$106,201.50</td>
</tr>
<tr>
<td>06/30/2006</td>
<td>T</td>
<td>sell</td>
<td>$27.91</td>
<td>500</td>
<td>$13,955.00</td>
<td>$270.00</td>
<td>$93,332.50</td>
<td>$106,464.50</td>
</tr>
<tr>
<td>06/30/2006</td>
<td>VZ</td>
<td>sell</td>
<td>$33.51</td>
<td>400</td>
<td>$13,404.00</td>
<td>$272.00</td>
<td>$106,729.50</td>
<td>$106,729.50</td>
</tr>
</tbody>
</table>

Table 3: Trading of the second week
4.2.3 Simulation week #3

I redid the calculation over again on July 03, 2006. I had invested AXP, CAT, GM, INTC, T, and VZ. Some of them I had invested on last week, but because they appeared on the list again, I invested them again.

On July 07, 2006, only MO had the prices that is more than one dollar above the invest prices; I sold the stocks of MO out. The earning of this week is $651.00.

<table>
<thead>
<tr>
<th>Date</th>
<th>Symbol</th>
<th>Buy/Sell</th>
<th>Price</th>
<th>Share</th>
<th>Net Cost/Proceeds</th>
<th>Profit/Loss</th>
<th>Total Cash</th>
<th>Total Asset</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/03/2006</td>
<td>AXP</td>
<td>buy</td>
<td>$53.34</td>
<td>200</td>
<td>$10,668.00</td>
<td>0</td>
<td>$96,054.50</td>
<td>$106,722.50</td>
</tr>
<tr>
<td>07/03/2006</td>
<td>CAT</td>
<td>buy</td>
<td>$74.63</td>
<td>150</td>
<td>$11,194.50</td>
<td>0</td>
<td>$84,853.00</td>
<td>$106,715.50</td>
</tr>
<tr>
<td>07/03/2006</td>
<td>GM</td>
<td>buy</td>
<td>$29.47</td>
<td>400</td>
<td>$11,788.00</td>
<td>0</td>
<td>$73,058.00</td>
<td>$106,708.50</td>
</tr>
<tr>
<td>07/03/2006</td>
<td>HD</td>
<td>buy</td>
<td>$35.78</td>
<td>300</td>
<td>$10,734.00</td>
<td>0</td>
<td>$62,317.00</td>
<td>$106,701.50</td>
</tr>
<tr>
<td>07/03/2006</td>
<td>INTC</td>
<td>buy</td>
<td>$19.22</td>
<td>650</td>
<td>$12,493.00</td>
<td>0</td>
<td>$49,817.00</td>
<td>$106,694.50</td>
</tr>
<tr>
<td>07/03/2006</td>
<td>MO</td>
<td>buy</td>
<td>$73.53</td>
<td>150</td>
<td>$11,029.50</td>
<td>0</td>
<td>$38,780.50</td>
<td>$106,687.50</td>
</tr>
<tr>
<td>07/03/2006</td>
<td>PFE</td>
<td>buy</td>
<td>$23.48</td>
<td>500</td>
<td>$11,740.00</td>
<td>0</td>
<td>$27,033.50</td>
<td>$106,680.50</td>
</tr>
<tr>
<td>07/03/2006</td>
<td>VZ</td>
<td>buy</td>
<td>$33.56</td>
<td>350</td>
<td>$11,746.00</td>
<td>0</td>
<td>$15,280.50</td>
<td>$106,673.50</td>
</tr>
<tr>
<td>07/07/2006</td>
<td>MO</td>
<td>sell</td>
<td>$77.87</td>
<td>150</td>
<td>$11,680.50</td>
<td>$651.00</td>
<td>$26,954.00</td>
<td>$107,317.50</td>
</tr>
</tbody>
</table>

Table 4: Trading of the third week
4.2.4 Simulation week #4

I decided to sell the stocks that I had held on hand as soon as I can, because the oil (gas) price was rose in Taiwan on July 07, 2006, and also because this is the last week of the trading, I had to sold everything out by this week. I guessed that the oil price of the world might go to rise. The price of oil rises up means the cost is going up, and it also means the earning of the company is going down. I sold all the stocks when the price started to fall on July 11, 2006.

The Lost from companies are 170 from AXP, 177 form CAT, 24 from GM, 300 from HD, 507 from INTC, 160 from PFE, and 203 from VZ. I had lost total $1,173.00 on this week’s trading.

<table>
<thead>
<tr>
<th>Date</th>
<th>Symbol</th>
<th>Buy/Sell</th>
<th>Price</th>
<th>Share</th>
<th>Net Cost/Proceeds</th>
<th>Profit/Loss</th>
<th>Total Cash</th>
<th>Total Asset</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/11/2006</td>
<td>AXP</td>
<td>sell</td>
<td>$52.49</td>
<td>200</td>
<td>$10,498.00</td>
<td>-$170.00</td>
<td>$37,445.00</td>
<td>$107,140.50</td>
</tr>
<tr>
<td>07/11/2006</td>
<td>CAT</td>
<td>sell</td>
<td>$73.45</td>
<td>150</td>
<td>$11,017.50</td>
<td>-$177.00</td>
<td>$48,455.50</td>
<td>$106,956.50</td>
</tr>
<tr>
<td>07/11/2006</td>
<td>GM</td>
<td>sell</td>
<td>$29.53</td>
<td>400</td>
<td>$11,812.00</td>
<td>-$24.00</td>
<td>$60,260.50</td>
<td>$106,973.50</td>
</tr>
<tr>
<td>07/11/2006</td>
<td>HD</td>
<td>sell</td>
<td>$34.78</td>
<td>300</td>
<td>$10,434.00</td>
<td>-$300.00</td>
<td>$70,687.50</td>
<td>$106,666.50</td>
</tr>
<tr>
<td>07/11/2006</td>
<td>INTC</td>
<td>sell</td>
<td>$18.44</td>
<td>650</td>
<td>$11,986.00</td>
<td>-$507.00</td>
<td>$82,666.50</td>
<td>$106,152.50</td>
</tr>
<tr>
<td>07/11/2006</td>
<td>PFE</td>
<td>sell</td>
<td>$23.80</td>
<td>500</td>
<td>$11,900.00</td>
<td>-$160.00</td>
<td>$94,559.50</td>
<td>$106,305.50</td>
</tr>
<tr>
<td>07/11/2006</td>
<td>VZ</td>
<td>sell</td>
<td>$32.98</td>
<td>350</td>
<td>$11,543.00</td>
<td>-$203.00</td>
<td>$106,095.50</td>
<td>$106,095.50</td>
</tr>
</tbody>
</table>

Table 5: Trading of the fourth week
4.3 Simulation Result

This four weeks simulation is pretty fun. I have learned a lot from this simulation. I have earned some profit, but also lost some money, which means no matter what method you are using you are not always earning money without losing. I also became better on looking at the price chart and more feeling by looking at the shape of the prices of this practice. In this simulation, week one to week three are the earning weeks, but the last week is the losing week. After this simulation, I can be more familiar of trading stocks and looking at the price in the stock market.

<table>
<thead>
<tr>
<th># of the Week</th>
<th>Earning/Losing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>$ 2,982.00</td>
</tr>
<tr>
<td>Week 2</td>
<td>$ 3,887.50</td>
</tr>
<tr>
<td>Week 3</td>
<td>$ 651.00</td>
</tr>
<tr>
<td>Week 4</td>
<td>-$ 1,173.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 6,347.50</strong></td>
</tr>
</tbody>
</table>

Table 6: Earning/losing of this simulation

The surprise of this simulation is the price of oil rose up. Because human cannot know the future beforehand, sometimes is hard to always buy and sell stocks at the right
The result of this simulation comes out good because the earning of the weeks is $6,347.50, which means the methods that I used in this simulation can be apply for short term as well. Earning around six thousands per month is not really bad. This result proves that my method works well for the short term. If I can stay eyes on the news very closely, it may prove its self even more. Even I had earned $6,347.50 from the stocks, but there is a trading fee, 7 dollars per trade, so the final earning of this simulation is $6,095.50.
Chapter V  Analysis

You need to pay attention to anything that can affect your stocks when you invest in the stock market. Keep your eyes open when you are investing, so you can minimize your losing. Some of the events come out from nowhere, which are like a war, terrorist attack, or a recession, cause the damage of the stock market. You have to be aware of outside events as a trader or an investor. You can make your investment become a more profitable investment if you can anticipate how an event affects the stock market, or economy. Some people believe that understanding the environment of the investment is more important than picking on the right stock.

The money that corporation makes is the most apparent reason that affects a stock goes up or down. People start to buy the stocks from the company that is making money or going to make money in the future. This is called supply and demand. Supply is like sellers, and demand is like buyers. When buyers are more than sellers of the stock market, the stock price will rise up. On the other hand, if sellers are more than buyers, the stock price will fall down.
5.1 Why investor lose money

People do not listen to you when you are trying to stop them from losing money until it is too late. People admit their mistakes until they lost most of their money. Making mistakes is very natural. There is no right or wrong about making mistakes. The biggest mistake people can make is that they do not recognize their mistakes when they already made one. Losing money is the most obvious way to see that something is going wrong with your investments. If your losing is greater than ten percent on an investment, this is the signal tells you that you have a problem of your investment. Remember that you are not investing stocks in the stock market for losing money.

Sometimes, when you are losing money, you do not feel you want to losing money, so you think that the price will go up later. After you keep holding your losing stocks, the price is still going down, and then you lose even more than before. Do not think that the price will come back or go above your invest price in a short time. Face to mistake you have made and fix it before it is getting too big. People do not want to sell the losing stocks and earning stocks easily, because they think the price may get back to none losing price or the price may get higher for earning more money. This kind of thinking leads people to make big mistake because the price may keep going down to make you lose more or the price may get lower than your invest price to make you from earning to
losing.

5.2 Analysis of earning

For the simulation of this project, I have done my calculation work very hardly everyday. Even I was getting very close result everyday; I was still doing my calculation work everyday. I have earned some profit from my investment because I have applied the right methods into my investment. The method I was using combined two kinds of methods together. The best result from those methods are the companies that showed on both top 10 list of each method, and the companies that are on the top 5 list of each method. So I was investing the best result from top 10 of both method, and also the top 5 list from both.

5.3 Analysis of losing

But even I have a good investment method that applied to this simulation; I still have lost some money on the last week. Because I was not really close to the news, this is a possible reason that I lost some money on the last week. Also, most of the stocks that I had invested on the third week were losing stocks, so I had decided to keep them till next week. The mistake I made is to keep them to next week because maybe I would lose a little bit less if I sold them on the third week. I was thinking the price might go up on the
last week. But somehow I lost more for keeping them longer.

The biggest news of the world had come out, which is the oil (gas) price rose up. When this news came out, most of the stocks were starting to fall down. The cost of producing product became higher, so the earning got lower. Future is hard to predict. That is the fun of the stocks and life because you never know what will happen in the future, good thing or bad thing.
Chapter VI  Conclusions

The project has gone through introduction, trading methods of stock market, selecting companies, simulations of trading, and analysis to this chapter. Now is the time to get all the results from the previous chapters, and see how close to the goals of this project and summary the project.

6.1 how close to the project goals

This IQP had been done in the summer of 2006. I was writing this IQP during my summer vacation in Taiwan. Because the summer vacation was not long enough to let me do long-term trading, short-term trading was providing into this IQP. After lots of researching and reading, I started to have some clues of the basic idea about stock market trading. I also had gotten more experience from the simulation of this project. After the simulation is done, I started to combine things together to get my result.

The purpose of this project is getting information from the research to learn more about the stock market. Investigate the effects of the trading stratagem through the process of the trading simulation. The most important goal of this project is to understand the process and get more experiences of simulating investment in stock market.

There is a lot of experience that I learned from this simulation. When I made
profit from stock trading, I felt existing and fun about trading in stock market. Making profit from the stocks makes me feel that I have been using right way of my investment. But, even losing money makes me feel unhappy; I have learned more experience from failure.

I also learned how to schedule my time from this project. I had broken this big project to parts, done each part per week. I had made myself to keep up my progress follow my schedule. This project made me to be more familiar to plan my day everyday. Even sometimes I was delay a little bit from my schedule, but pushed myself to catch up my original schedule is also a good lesson.

I feel that I really got the goal of this project. What I have learned is not just only the researching I have done of this project, but also the process of this project. This project really makes people grow up and takes things seriously.

6.2 Summary of the project

After this project is very close to complete, I feel that it is normal to make mistakes in the stock market. The experience of this project tells me that making mistakes is not the biggest mistake, but do not think you are making mistake while you are making is the biggest mistake. This project does not jest make me learn how to trade in stock market. It
also makes me know how to face to my mistake, and fix the mistake I have found before it is getting too big. This is also the way that we should face to our lives, no just for invest in stock market. Face to the mistake you made is not an easy thing. You have to give some bravery to yourself for letting you pull yourself back to the right track.
References

1. Neatest Little Guide to Stock Market Investing, Jason Kelly, PLUME

2. UNDERSTANDING STOCKS, Michael Sincere, McGraw Hill

3. Stock Investing For Dummies, Paul Mladjenovic, Wiley Publishing Inc.
