

INVESTMENT STUDY AND STOCK MARKET SIMULATION

An Interactive Qualifying Project Report

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by

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1. investing
2. stock market
3. trading

**Abstract:**

We undertake extensive research regarding investing plans, strategies, and methods that have been used by investing professionals. Then we apply this knowledge by taking part in a stock market simulation to gain experience through the formation and maintenance of multiple portfolios. From our research and the simulation we conclude that portfolio diversification, company earnings, and commitment to a long-term investing strategy are three valuable elements of investment.

**Acknowledgements:**

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**Authorship:**

We feel that we have contributed equally to the completion of this project and that it is not possible to separate one partner's work from the other's.

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## **Chapter 1 – Introduction**

Investing is a critical part of today's society, wherein it promotes the transfer of funds from those with a surplus to those with a deficit. For most people, investments play an important role in financial planning for the future. Because of the recent worries about social security, many people are looking for alternative ways to safeguard their future. This has created a greater need for investing in the general public. This increase in overall investing benefits society as a whole, as it provides an opportunity for businesses to raise capital and investors to profit from the businesses' activity. In recent years there has been an increase in the accessibility to the stock market and investing information through technology which has increased overall investment volume further.

The increased accessibility enables almost anyone to invest in the stock market whether they are prepared to or not. In some cases inexperienced investors enter the market with no prior knowledge. This usually leads to devastating losses, which could have been avoided with some simple research. These losses can occur because an investor may buy and sell on impulse, or be misled by a news story without checking a company's financials. In this way, the novice investor can make multiple poor investment decisions and be very unsuccessful in the market.

This project is designed to provide first-time investors with stock investing strategies and show them application in a simulation. First we gain knowledge through investing plans, strategies, and methods that have been used by successful investors in the past. Then we reinforce this knowledge through application by taking part in the formation and maintenance of sample portfolios. By examining the portfolios constructed for this project, a novice investor is able to see how and why stocks were

picked and how they performed in the market. This provides inexperienced investors with the groundwork for entering and potentially having success in the stock market.

## **Chapter 2 – Background**

Investment, as defined by The American Heritage Dictionary of the English Language, is “property or another possession acquired for future financial return or benefit.” Through investing, one is able to lend funds to a party in need, and procure some kind of advantage for oneself at the same time. This process is used to facilitate the transfer of funds from a party with a surplus to a party with a deficit.<sup>1</sup>

An investor, in general, is looking to reap a benefit from the lease of his or her money. A bank that solicits loans to clients charges interest to gain a profit, or an investor in the stock market exchanges their money for partial ownership of a company in anticipation of a rise in the company’s value. In any number of ways, a lender can gain considerably from participating in an investment agreement.

At the same time, a borrower in the same agreement will realize an advantage through the immediate acquisition of funds. Using the same examples, a borrower may take out a loan from a bank to finance a large purchase, or a company may sell shares to the public to raise funds for a project that will increase its overall value. The need for finances experienced by these entities enables the borrowing and lending process to happen, and through it, an organization or a person can acquire money that would otherwise be unattainable.

It is clear how the exchange of funds provides a benefit for both the lender and borrower and by doing so helps the entire economy move forward. As an example, when a company uses stocks or bonds to raise capital, they are perhaps establishing a financial base to help them get a new product off the ground. If the new product is a success, the

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<sup>1</sup> A party with a surplus is when the party possesses more funds than it has expenses. A party with a deficit is when the party has more expenses than it does funds.

company's market share will increase, creating profits for its investors and hence rewarding them for their initial investment. The investor will therefore have a greater volume of funds for either more investment or purchases. Purchases made will increase a company's value and hence increase its stock price, restarting the cycle of economic benefits through the stock market. Because of this, the process of investing helps the entire economy move forward.

At the same time, the direction in which the economy is headed can affect multiple financial markets. In this way, a downturn in the economy may undermine investor confidence. If there is an overall lack of faith in the economy, or the future of the economy for that matter, investors may shy away from placing their money in markets because of a perceived uncertainty. This lack of investors will weaken the market even further, and it may not recover for quite some time.

In section 2.1 we discuss several of the most prominent forms of investing. We examine the strengths and weaknesses of each type, and also which investments may be practical for different types of investors. Section 2.2 highlights the investment plan, which encompasses all aspects of an investor's current situation, including age, income, goals for investing and the investing environment. As part of the investment plan, an investor must determine a strategy for asset allocation, which determines how much of the investor's total assets are invested in different entities.

The stock market is the focus for section 2.3, as well as for the majority of our project. This section discusses why we selected the stock market. It also describes the origins of the stock market, and its impact on technology and society. The topic of section 2.4 is how to analyze the current economy, the conditions of an industry, and an

individual company. Next, section 2.5 looks at many types of investing strategies commonly used and how to best apply them. Section 2.6 briefly explains the simulation website we will be using and why we have chosen it.

## 2.1 Major Types of Investment

There are many different methods and manners with which one can invest. Many families become investors without consciously planning to, through home-ownership, although there are many investors who look to real estate for profit as well. Aside from this extremely common investment, investors who are looking for a greater potential of growth may turn to the stock market. Stocks are a widely used and easily attainable investment that can lead to large returns. Along the same lines as stocks, bonds offer investors a slightly different option than stocks with a very similar chance for a sizeable payout. Bonds are essentially an agreement to repay borrowed money at a future date for a predetermined price, whereas stocks represent ownership of the company that issues them.

Another type of investment, the commodity market, is viewed as a moderately risky investment by many investors, and hence only attracts those who are accepting of the risk associated with it. Despite all these potentially lucrative options, mutual funds have become exceedingly popular in recent history, with 89% of the investing public owning a stock market mutual fund (Morris & Morris, 2004). Mutual funds provide investors with the opportunity to entrust their money to a firm that will invest it for them in highly diversified financial instruments. This is appealing to investors because high diversification lowers the overall risk of a portfolio. One very low risk type of mutual fund is a money market fund, but it offers relatively small long-term returns as almost all

low risk investments do. A final popular aspect of investment is retirement funds. Retirement funds are generally provided by an employer as an option to its employees to grow a percentage of their income to be accessed after the worker retires. Below the prominent characteristics of the major types of investment are discussed.

### Real Estate

A very common and even more important investment that many overlook is real estate. Residential real estate investing, including home-ownership, is moderately low-risk with a steady growth potential. Owning a house is a priority for many families and often “enters a family’s plans long before they are beginning to think about organizing a long-term investment portfolio” (Sease & Prestbo, 1994, chap. 8, p. 281). Because of this, many families become homeowners without thinking about the investment perspective. Instead of putting a down payment on a house and paying monthly mortgage payments, a family may be better off financially if they rented a house. The family then could use the money they had saved for a down payment and invest it in a different, more profitable, manner (Sease & Prestbo 1994). At the same time, a mortgage payment contributes to the ownership of the house, which is a valuable asset, whereas rent payments do not contribute to any financial gain.

A Real Estate Investment Trust (REIT) is a simple way for investors to participate in the real estate market. A REIT acts similarly to a mutual fund, collecting capital from investors and using it to purchase mortgages and properties. The REIT has many advantages to pure ownership of property, as it is much more liquid and is able to provide geographical diversification (Sease & Prestbo 1994).



## Stocks

Stocks are a very popular type of investment, with a high potential for success, but also with substantial risks. An investor can choose from multiple strategies and investing styles to ‘play’ the market as their personality and financial situation dictates. Stocks represent ownership of the company that originally issues them. In many cases, a company will issue shares of stock to raise capital for an expensive project, starting the company or simply to raise capital. In turn, the company will hopefully use its newly acquired funds to make a profit, increase the stock price, and hence reward its stockholders.

To an investor, the stock market represents a moderately customizable investment. A risk-averse investor can create a highly diversified stock portfolio with a good opportunity for growth. At the same time, a more aggressive investor can invest in a start-up company with perceived potential that could yield generous returns or cause a devastating loss. Aside from personal preference, the stock market has been a lucrative investment for most, as it has averaged strong returns for the better part of the past 80 years (Morris & Morris, 2004).

## Bonds

Bonds represent another investment option, where an organization borrows money from an investor in exchange for a bond promising to repay the money over a certain period of time at a certain interest rate. Being safe for the most part, bonds represent an attractive option to investors who are looking to grow their money with minimal risk. At the same time, bonds can be traded very similarly to stocks by investors looking for significant returns (Sease & Prestbo, 1994, chap. 4).

Bonds can be issued by a corporation, local governments, and the United States Treasury Department. Treasury bonds are viewed by many investors as low-risk because they are backed by the federal government, but because of this they have lower interest rates than more risky corporate bonds of the same duration (Lott & Kamlet, 1998). The reason for this is the government can adjust tax rates and operate at a deficit to raise the funds needed to repay the bonds. Municipal bonds are not as safe as Treasury bonds because they are backed only by the state and local government. They are attractive, however, due to their exemption from federal taxes. Corporate bonds, particularly long-term corporate bonds, are also moderately risky due to the possibility of the company going bankrupt and defaulting on its payments.

### Commodities

An investor can also look to investing in commodities, such as oil, wheat and gold, to reap a profit. Commodity trading is similar to the stock market, as they provide investors with an opportunity to exchange money for ownership of a product or company, respectively. The commodity market is commonly perceived as being highly volatile, but this is not always the case. Powers (2001) explains that commodities can be extremely risky when traded with high leverage, but at the same time can be a very low-risk investment if the investor selects commodities with low leverage and a high probability of payoff.

Leverage is used in the commodities market by agreeing to purchase so much of a good at a certain price at a future date, and paying only 10% of the value of the good to 'back-up' the agreement. If the price of the good increases, the investor can sell the agreement and keep the difference between the price he or she paid for it and the price at

which the investor sold it. This amount, when compared to the initial investment can be a substantial gain, such as doubling the initial 10% paid. This is why the commodities market is so risky, because a moderate sum of money can generate massive profits or substantial losses.

Investors participate in the commodities, or futures, market for a variety of reasons. As is often the case, merchants will sell futures “as substitutes for merchandising transactions they will make at a later time” (Powers, 2001, chap. 1, p. 7). Other participants are known as speculators, who look to profit from forecasting changes in price of a commodity. “Scalpers” are speculators who make many, very short-term trades and look to make a minor profit off each. The other group of speculators are called “position traders”, who buy a commodity for at least a day and stand by it in anticipation of an increase in price (Powers, 2001).

### Mutual Funds

Mutual funds provide investors with a low-maintenance investment opportunity that is easily obtainable and customizable. An investor entrusts a sum of money to a firm, which collectively invests in many different financial markets. A mutual fund is “a pool of money from many investors that is used to pursue a specific objective” (Lott, 1998). This also provides investors with a very high level of diversity that would be difficult to accomplish as an individual. A firm acts as the intermediary between the investors and the actual investment, merging all of its clients’ funds to invest in a variety of other investment options. These funds may be used to purchase “stocks, long-term bonds, or short-term debt instruments issued by businesses or government units” (Brigham & Houston, 2004).

There is an incredible variety of types of mutual funds in several categories including, sector funds, international funds, income funds, municipal bond funds and short-term fixed income funds (Sease & Prestbo, 1994). This substantial selection allows investors to put their money into a mutual fund that is most to their liking and that will best suit their needs.

One specific type of a short-term fixed income mutual fund is a money market fund. Money market funds “invest in short-term securities that pay a modest rate of interest and are very safe” (Lott, 2005). These funds represent an opportunity for the investor who is looking for an especially low-risk investment to participate in the market. Additionally, money market funds let investors write checks against their accounts (Brigham & Houston, 2004).

While money market funds are commonly a risk-free place to store extra funds for future investment, growth and safety are not guaranteed. Sease & Prestbo (1994) argue that the short-term securities money market funds invest in are not always profitable. Additionally, as overall rates decline, money market funds may take more risks to improve yields. Because of these reasons and the relatively small returns an investor stands to gain from a money market fund, it is not wise to invest large sums of money in one long-term.

### Retirement Funds

Retirement Investments options are very attractive and include individual retirement accounts (IRA), 401Ks, and pensions. The major advantages of these options are the tax shelters, deferments, and the added employer contributions they offer. The IRA has two options; traditional and Roth. The traditional IRA contributions will qualify

for a tax deduction if certain limits are met. The returns of the investment are deferred until the funds are withdrawn. All funds withdrawn are taxable as current income. The Roth IRA is not tax deductible, but the returns will grow on a tax-deferred basis and can be withdrawn tax-free if invested for at least five years and withdrawn after the age of 59.5 years. This option is subject to limitations based on the investor's income. In most cases the Roth IRA's tax free withdrawal will prevail over the tax deduction benefit from the regular IRA. An exception to this rule is if the investor's tax rate is substantially less than when they initially invested (Reilly & Brown, 2003).

Employers might offer employees 401K plans. These plans allow employees to reduce taxable income and make tax deferred investments. When investing in a 401K a lot of times employee contributions will be matched up to a certain percentage by the employer. This allows the employee to freely increase their investment. The typical investor should invest as much as possible in these tax deferred methods. The drawbacks are that early withdrawals before 59.5 are taxable and subject to a ten percent early withdrawal tax (Reilly & Brown, 2003).

Pension plans are made up of a promise to pay employees an income stream after retirement. The size of the payment is made of factors such as the worker's salary or time of employment. Pension funds receive finances from employees, the firm, or both (Reilly & Brown, 2003).

## 2.2 Constructing an Investing Plan

An investor can be anyone from an individual to an institution. Individuals invest to earn a return for saving their own funds. They can invest for themselves or let institutions act on their behalf. Institutions manage large amounts of others' funds as a

business. Institutions include mutual and pension funds. Investors are looking for returns. These returns should compensate them for time, inflation, and uncertainty. The uncertainty of events happening pertains to risk. For larger amounts of risk the investor should gain more returns, otherwise it would be an unwise investment to make.

Regardless of the complexity of the investor, a plan should be developed and used when investing (Reilly & Brown, 2003). Investment plans are different depending on the type of investors and their position in life. Plans should be created in accordance to age, financial position, risk tolerance, goals, and the investing environment. If an investor is a risk lover, his or her asset allocation strategy will look much different than a person who shies away from risk. But regardless of this, spreading money across different assets still protects against losses. One assets loss will be covered by another's gain. Asset allocation is a method used to diversify and guard a portfolio of investments (Fontanills, 2001). Asset allocation across different asset classes reduces risk and is a way to take advantage of market cycles. "Spreading your money across many different types of investments lessens the negative impact of any investment that declines" (Putnam Investing, 2005). For example, an investor could put sixty percent of funds in stocks, twenty percent in bonds, and twenty percent in money markets. When an investor anticipates an economy boom, he or she will want to shift some of their safe assets to ones with more risk to take advantage of it. Most assets tend to rise and fall in some degrees at the same times. "If it's a bear market, your mix will be substantially different than if the market's red hot" (Fontanills, 2001, ch. 4, 88).<sup>2</sup>

Everyone has the capability of winning in investing. "The secret to winning the Winner's Game in investing is simple: Plan your play and play your plan to win your

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<sup>2</sup> A bear market is a time when the market is down. A bull market is a time when the market is up.

game” (Ellis, 2005). Investors that continually try to beat the market will lose in time. This is because trying to beat the market leads the investor to taking on more and more risks. More risk has the potential for greater gains, but also greater losses. Investors typically lose big when they try to take on too much risk because of this. Investors should try to avoid taking large losses. Large losses are hard to overcome from. A forty percent loss requires a forty percent gain just to break even. Investors should try to use defense to shield their portfolios. Using methods such as asset allocation will help investors reduce risks. “If, as investors, we could learn to concentrate on wisely defining our own long-term objectives and learn to focus on not losing the most important part of each specific decision, we could all be winners over the long term” (Ellis, 2005).

### 2.2.1 Factors of the Investing Plan

The sections below discuss some important factors that influence the investment plan and should be considered by all investors. Investors not only have to work within their own limitations, but also within ones set by the economy.

#### (A) Necessities of Life

Serious investing should not be done until a safety net for the individual is established (Reilly & Brown, 2003). Insurance should be included in any financial plan. The first step in a financial plan should be to purchase sufficient life insurance coverage. Emergencies and unpredicted events happen. It is important to have a cash reserve to meet these needs. Cash reserves protect investors against being forced to sell investments at bad times to cover expenses. A standard cash reserve is six months living expense (Reilly & Brown, 2003). Even though it is called a cash reserve, this cash should be in money markets or banks.

## (B) Goals: Age, Income, and Risk

An investment goal of “making money” is not proper and very vague. An investor must understand his or her goals before they can communicate them to an advisor or invest for him or herself. All investors should create a policy statement as a part of the investing plan. This statement specifies investment goals, constraints, and risks. “Risk is the uncertainty of future outcomes” (Reilly & Brown, 2003, chap. 7, 211). An investor’s acceptable risk tolerance should be measured. Risk tolerance is not only made up of the behavioral factors of the investor, but also the insurance and cash reserves he or she has (Reilly & Brown, 2003). Individuals with greater incomes have greater ability to undertake higher risks and recover from losses with other investments. Age also plays a huge role in this. Older investors have shorter timeframes to make up for losses. Plans should be made according to the investor’s lifecycle phase which is defined later.

Individuals have a variety of goals and priority of these goals over a life cycle. Goals can range from short to long term. Important, short term goals have a limited time horizon and importance. High risk investments are not usually optimal for these goals. Lower priority, long-term goals have a longer time horizon and less importance and, thus, can use higher risk items because of this nature (Reilly & Brown, 2003).

An individual can invest with the goals of capital preservation, income, income/growth, growth, or aggressive growth. Capital preservation means minimizing loss by preserving purchasing power over inflation. Income goals concentrate on producing income that supplements income rather than obtaining capital gains. Growth/Income focuses on increasing value by both capital gains and current income.



Growth goals exclusively focus on capital gains. Aggressive growth goals focus on the riskiest of investments that have huge up and downside possibilities.

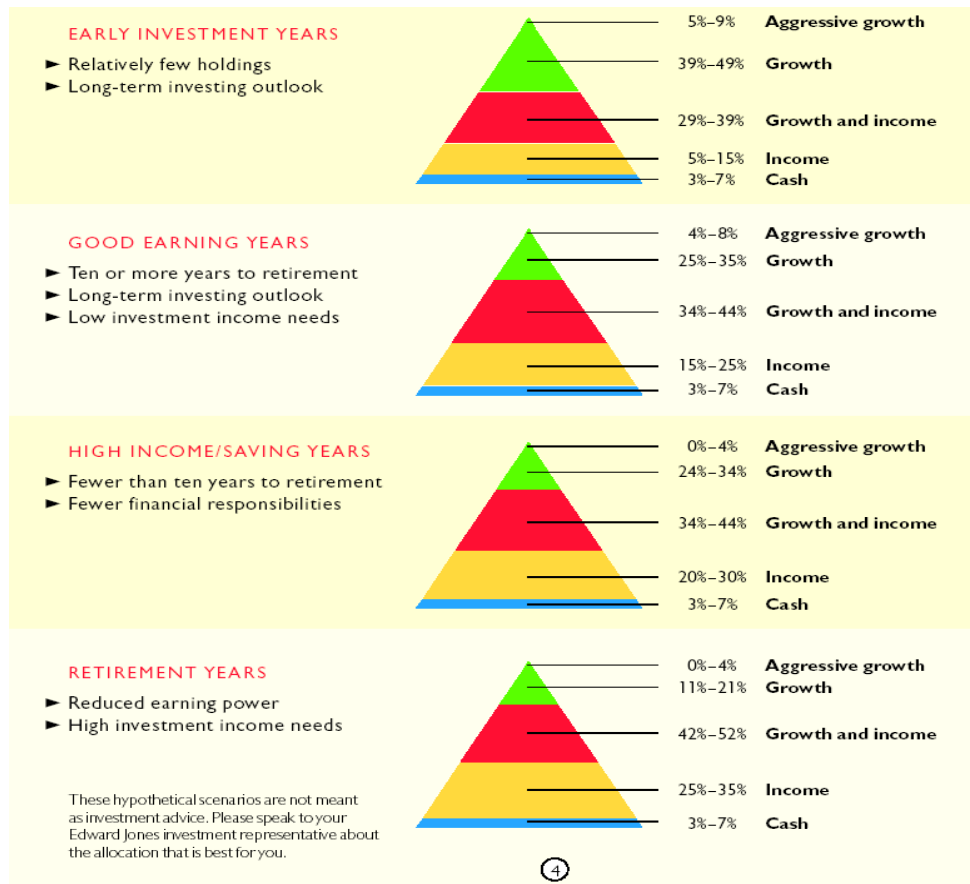
Model Name	Risk Potential Less ← → More	Return Potential Less ← → More	Asset Allocation
Capital Preservation			Stocks 25% Bonds 50% Cash 25%
Income			Stocks 40% Bonds 45% Cash 15%
Income/Growth			Stocks 50% Bonds 40% Cash 10%
Growth			Stocks 65% Bonds 25% Cash 10%
Aggressive Growth			Stocks 80% Bonds 10% Cash 10%

**Figure 2.1: Asset Allocation Example**  
Source: <http://www.ml.com>

Figure 2.1 displays a break down of different investing goals. It shows each goal's risk level, return potential, and gives a sample asset allocation appropriate to the goal. The goal of aggressive growth has the highest level of risk, the highest return potential, and is highly concentrated in stocks.

Investment strategies will change over a lifetime, influenced by adjustments in risk tolerance or increased age and wealth. The investment life cycle is made up of four phases (Reilly & Brown, 2003). The accumulation phase is made up of individuals in their early to middle years of their careers. Assets are being accumulated to satisfy immediate and long term needs. These individuals typically purchase a home and start planning for their children's future. Typically, net worth is small and debt is high. The long investment horizon allows the use of higher risk investments. The consolidation phase consists of individuals past the middle of their careers. At this step, individuals have paid off most of their debts. Earnings start to be greater than expenses. The investment horizon is still big, so moderately risky investments should be taken. The

spending phase begins when people retire. Living expenses are covered. Greater capital protection should be taken because earning years are over. The overall portfolio should be less risky, but capital preservation is still a goal. The gifting phase is made up of individuals who believe they have sufficient assets to cover expenses and have reserves for assistance and uncertainties.



**Figure 2.2: Age/Risk Example**  
 Source: <https://www.putnam.com>

Figure 2.2 separates the life cycle into different groupings. It displays a pyramid to the right of each stage and breaks down how funds should be invested according to the phase. As one moves up the pyramid the investments get more risky. The figure shows in the early years more aggressive and growth investments are appropriate. As retirement years approach, the figure recommends safer and more income investments.

### (C) Investment Environment

Investors not only have to abide by their own restrictions, age and income, but also work within a set of limitations that the economy defines. These limitations complicate the investor's choices. An investor must consider liquidity factors, taxes levied, and legal constraints when defining the investing plan (Reilly & Brown, 2003).

A liquid asset can be quickly converted to cash without losing value. Assets are more liquid if many investors are interested in purchasing them. The economy is made up of thick and thin markets. Thick markets contain many potential buyers and thus are very liquid. An example of a thick market is the New York Stock Exchange. Thin markets contain fewer buyers and thus are less liquid. An example is the real estate market. Short term investments require greater liquidity because of time constraints to recover losses. Long term investments can tolerate less liquidity because investments do not have to be withdrawn quickly.

Taxes complicate investment planning. The decision for an investor to sell or buy an asset is affected by its resulting taxes. Taxable income from dividends, interest, or rent is taxed at the individual's marginal tax rate (Reilly & Brown, 2003). Marginal tax rate is the rate paid in taxes on the next taxable dollar. Capital gains are taxed differently than income. Income is taxed when it is received. Capital gains or losses are taxed only when the asset is sold at a price higher than its cost (Reilly & Brown, 2003). This is when the gain or loss becomes realized. The highest rate an investor can pay on capital gains is fifteen percent. This applies if these gains are held in long term. Investors are offered several breaks on taxes within certain investment choices. A tax exemption on a particular investment makes it attractive. Interest on federal securities is exempt from

state taxes (Reilly & Brown, 2003). Interest on municipal bonds is exempt from federal taxes and state taxes if the bond is issued by the state in which the investor lives.

The investing and financial markets are highly regulated. The Securities and Exchange Commission is the regulatory body of the stock market. Investment decisions must be made in accordance with their rules. Insider trading is not allowed by any investors. Insider trading deals with using non-public information to aid in the purchase or sale of a security.

### 2.2.2 Dealing with Risk on a Portfolio

The sections below discuss the interaction of risk on a portfolio. The amount of risk an investor takes directly affects the amount of returns he or she will be able to gain. Asset allocation is a way to diversify a portfolio and mitigate risks. The time value of money rewards investors who start investing early.

#### (A) Risk and Diversification

Policy statement objectives should be stated in terms of both risk and reward (Reilly & Brown, 2003). If returns are the only item stated, it can lead to the portfolio consisting of more risk than the investor is willing to tolerate. The policy statement will help an investor understand his or her needs better and assist an advisor in decision-making. It will reduce the risks of making inappropriate decisions and give a better chance of achieving investment goals. “A policy statement should prevent delays in monitoring and rebalancing your portfolio and will help create a seamless transition from one money manager to another” (Reilly & Brown, 2003, chap. 2, 42). All investment decisions are made according to this policy statement. This guarantees a good fit is

achieved for the investor. If a portfolio that is professionally managed starts to deviate from the policy statement objectives, a manager's dismissal should be considered.

Investing looks into the future and uses strategies to best meet goals defined in the policy statement. The portfolio manager or individual investor should look at current financial and economic situations to help forecast events. The investor's needs and forecast of the future economic conditions will establish an investing strategy. With the policy statement and the economic forecast, an asset allocation scheme will be set up across different asset classes and countries (Reilly & Brown, 2003).

Investors must become familiar with the risks of investing. There are two types of risk, diversifiable risk and non-diversifiable risk. Diversifiable risk is company related risk, which can be eliminated by holding many securities in different industries. Non-diversifiable risk is economy related risk which cannot be eliminated. A successful portfolio will eliminate diversifiable risk and always keep a close watch on the economy's changing events that might adversely affect a portfolio. Most investors are risk averse (Reilly & Brown, 2003). This means when given the choice between two securities with equal return, the one with the lower risk will be chosen. An investor wants to maximize returns for any level of risk. This does not mean that all investors are risk averse or always make risk averse decisions. Some people want to pay for the excitement of risk involved and the safe route is not always taken or beneficial. However, there is a very positive relationship between risk and reward in the investing scheme and should be (Reilly & Brown, 2003). Greater rewards are achieved from taking on more risk. Maintaining a disciplined and steady approach to investing will increase the investor's likelihood of success.

Investors can have different feelings toward risk within a portfolio. Investors might be willing to take on more risk with some of their money and less with others. Investors might take on higher risk in the high growth section of their portfolio while keeping the downside protection layer safer. “In behavioral portfolio theory, investors construct their portfolios as layered pyramids in which the bottom layers are designed for downside protection and the top layers are designed for upside potential” (Statman, 2004).

A portfolio includes all assets and liabilities of an individual investor. To build portfolios, investors have to define their acceptable level of risk. Variance, or standard deviation, of returns is a good way to measure a given portfolio’s risk (Reilly & Brown, 2003). It is a value for the possible disperses around an expected return. A large variance is not desirable. Variance shows the importance of diversifying investments to reduce total risk. It is important to consider the full view of investment and interaction. When creating a portfolio it is not enough to combine many securities with wanted return characteristics, the relationship among the individual securities must be considered (Reilly & Brown, 2003). Risks can be lowered if one security’s losses are recovered with another security’s gains.

Covariance measures the degree of which two items move together over time. A positive covariance means that rates of return between two investments will tend to move in the same direction during some time. Negative covariance means rates of return between two items tend to move in opposite directions over time. The values of correlation will be in the range of +1 to -1 with each end being the perfect relationship. The more negatively correlated the portfolio items are, the greater the chance of achieving the mean expected return and totally eliminating risk (Reilly & Brown, 2003).

A given portfolio is superior if no other portfolio offers higher expected returns for its given risk. The expected return for a portfolio of investments is the weighted average of returns for individual items in a portfolio. Weights are proportional to the total value of the investment. Once the expected return is calculated, the effects of adding or dropping an investment can be measured. Certain steps must be taken before an asset is considered as an addition to the portfolio. Its return, standard deviation, and correlation to other portfolio items must be considered. Adding items that are not perfectly correlated do not affect return, but do lower risk (Reilly & Brown, 2003). Portfolios of items that are not perfectly correlated become less risky than holding one single item. “The ability to reduce risk is the essence of diversification” (Reilly & Brown, 2003, chap. 7, 226). Negative correlation allows a conservative investor to invest in riskier items and experience higher returns and lower risks.

#### (B) Asset Allocation

The practice of investing funds should center on managing risks. This is because risk drives returns. Asset allocation is the method of distributing funds among different asset classes and countries to diversify and minimize risks (Reilly & Brown, 2003). An asset class is made up of similar attributes; stocks, bonds, cash, or real estate. Asset allocation is not a secluded decision; it depends on an investor’s goals, risk constraints, and the external environment. “Asset allocation is a risk management strategy that helps reduce the effects of market fluctuations” (Merrill Lynch, 2005). It is one of the first steps in developing a well balanced portfolio. Stocks, bonds, and cash typically do not lose value at the same times. Having all of these items in a portfolio can reduce risks over time (Merrill Lynch, 2005). The gains from one asset category will offset the loss

from another category of ones. It's not enough for an investor just to diversify across assets. Further diversification can be achieved by diversifying within an asset class. This will make sure no one single asset largely affects an investor's portfolio. "Equity diversification includes holding stocks from different sectors or industries, or with different market capitalizations (such as large- and small-cap stocks) and different styles (such as growth and value)" (Merrill Lynch, 2005). Asset allocation should be made in accordance with the investment plan, which guides investing decisions.

A policy statement does not tell what securities to purchase or when they should be sold, but provides proportions or ranges to invest in each asset class (Reilly & Brown, 2003). Ranges give the manager room to adjust allocations to take advantages of bull or bearish markets. Investing success can be realized through investing over time with a smart asset allocation strategy, not the specific selection of stocks and bonds (Reilly & Brown, 2003). The asset allocation and the level of risks in these assets will explain the returns of the fund. Investors must stick to their investment plan and be patient through the tough times. Transaction and commission fees can drive up costs and take away from returns. If at all possible, investors should try to buy shares of stocks in round lots to save on fees.<sup>3</sup> When stocks are purchased in odd lots, fees are greater.<sup>4</sup> Investors should sell a bad asset. They cannot let personal pride cause losses to be greater than needed. "A number of studies have shown that individual investors frequently trade stocks too often-driving up commissions-and sell stocks with gains too early, while they hold onto losers too long" (Reilly & Brown, 2003, chap. 2, 54). When a portfolio is professional

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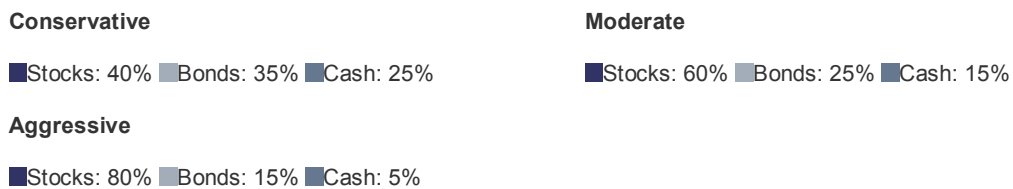
<sup>3</sup> A round lot consists of shares of stocks in 100 unit packages.

<sup>4</sup> An odd lot consists of stock in less than 100 unit packages.



managed, individuals should be cautious of the professional churning their account. Churning is when the professional buys and sells frequently driving up commissions.

Investors will have the option to choose from many different portfolios. The difference between these portfolios is the levels of risk they take. An efficient frontier contains sets of portfolios that maximize return for a given level of risk. Investors will target a point on the frontier that coincides with their attitude toward risk and gives them the highest rate of utility (Reilly & Brown, 2003). No portfolio dominates any of the others; the only difference is in the tolerable amount of risk being used.



**Figure 2.3: Risk Allocation Example**  
Source: <http://www.wellsfargoadvantagefunds.com>

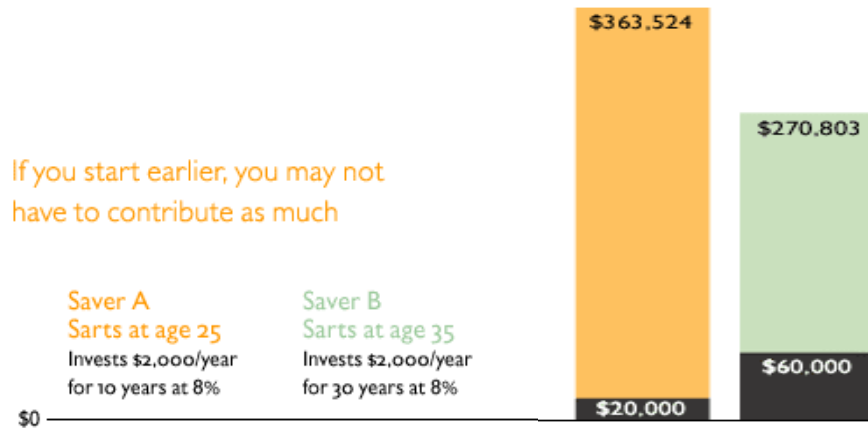
Figure 2.3 shows examples of different asset allocations depending on different levels of risks. It shows more conservative portfolios contain higher levels of cash and riskier portfolios contain more stocks.

Managing and reviewing an investing portfolio never stops. The economy is constantly changing because of political and social attitudes. The portfolio must be consistently updated to adjust to the investor's needs, the dynamic economy, and changes in the policy statement. The policy statement provides a standard to use in judging performance.

### (C) Time Value of Money

The sooner an investor starts planning and investing for the future the better. Compounding has a wonderful affect on growing money. "The longer money remains

invested, the harder it can work for you” (Putnam Investing, 2005). Investing over a large time horizon is also less risky because market fluctuations balance out.



**Figure 2.4: Compounding Example**  
Source: <https://www.putnam.com>

Figure 2.4 shows an example of the time value of money. The more years money is invested for, the greater affect compounding will have. Growth rates are being compounding on larger and larger amounts of money.

### 2.3 The Stock Market

For this project, we have chosen to focus our investments in the stock market. While a plethora of investment options is available to any person, the stock market provides significant advantages for our research. Most significantly, the stock market has become incredibly convenient for the average investor. Through online trading, investment software and brokerage firms, the stock market is a very accessible opportunity. Additionally, stocks are a common investing practice for many Americans, with approximately 49% of the 84.3 million investing adults participating directly in the stock market in 2003 (Morris & Morris, 2004).

An attractive aspect of the stock market is its ability to be as complicated or as simple as an investor may like. There are many advanced strategies and analyses that are

often used, but at the same time an investor can simply buy a few shares from a company they feel has potential for growth. While this may not give the investor a large chance for success, it still enables them to participate in the stock market. In a similar manner, the stock market enables investors to grow smaller amounts of money that would not be worth putting into other forms of investment.

The most appealing aspect of the stock market is its average percentage of returns. “Between 1926 and 2003 blue chip equities delivered average returns of 10.3 percent a year,” as compared to long-term corporate bonds that only yielded 5.9 percent returns (Lim, ch.5, p.80, 2005). This demonstrates that, for the most part, the stock market is a profitable investment and an investor is presented with the chance to make a significant amount of money. Even though the average returns are respectable, the potential for very large returns is another point of interest for many investors.

For this research, the stock market is alluring because of the aforementioned facts and because of the timeframe in which we will be investing. It would be illogical to invest in a money market account over a seven-week period, because the yields would be nominal and there would be very little research conducted or knowledge gained. The stock market can provide significant returns over the relatively short period of a month and a half. Moreover, there is a vast array of strategies and scenarios available to be explored regarding the stock market.

#### Origins of Wall Street and the stock market

Before investing in the stock market, one should have a basic understanding of how it was developed and what its original purpose was. The main hub of the stock market is Wall Street, and it has evolved from a small gathering of brokers to a bustling

center of investment activity. Named for a wall that once stood to protect Dutch settlers from Native American attacks, Wall Street did not become financially oriented until 1789, when the United States government decided it needed to issue bonds to finance the costs of the Revolutionary War. Stocks were issued soon after, forming the Bank of the United States. As the supply of these financial instruments grew, the necessity for an organized market became apparent (Wyss, 2000).

On May 17, 1792, the first formal organization of the market occurred with the signing of the Buttonwood Agreement. This document created a formal structure and increased regulations. The War of 1812 caused the brokers involved in the Buttonwood Agreement to reorganize in 1817, creating the New York Stock and Exchange Board (NYS & EB). While the market was more organized, it was still not very widely used. There remains a significant lack of information regarding trades during this period, largely because of “the relatively small number of securities that were actually traded on a regular basis” (Geisst, ch.1, p.21, 1997).

The NYS & EB saw reasonably steady growth through the 1800s, due in part to the construction of the Erie Canal and the advent of the telegraph, stock ticker and telephone. In 1863, its name was changed to the New York Stock Exchange (NYSE). The NYSE moved to its current location, at 18 Broad St, on April 22, 1903. The year 1929 brought about the first great crash of the stock market. The market was then impacted by Franklin Roosevelt’s “Securities Act” of 1933, which called for disclosure of all relevant information by companies to investors. The Securities and Exchange Commission was created shortly thereafter to enforce these new policies. The market has

grown considerably since then, recording the highest volume of trades in a single day on June 24, 2005 with 3,115,805,723 shares.<sup>5</sup>

### The Impact of Technology

Throughout the history of the stock market, technology has been ever improving the ease with which investors can trade. The invention of the telegraph and telephone allowed information to be communicated over large distances, allowing investors to know of how their investment is faring. In addition, the invention of the stock ticker enabled newspapers to print current stock prices on a frequent basis, providing investors with information for new opportunities or risks. Advancements in technology continued to enable the public to have better access to stock prices.

Along with a greater awareness of stock prices came a greater awareness of company information. The same technology used to spread word of how the market was performing, was used to give shareholders a better understanding of the company in which they were to invest. The accessibility of information regarding companies plays a large role in most investors' decisions. Furthermore, with more information available, traders can make better investments that are more likely to be profitable.

NASDAQ, founded in 1971, was the first electronic stock market established and is currently the largest ([www.wikipedia.com](http://www.wikipedia.com)). Electronic exchanges have grown in popularity, and in order to keep pace the NYSE recently acquired the electronic exchange Archipelago.

Today, modern communications technologies, namely the internet, have brought forth an unheard of level of convenience for traders. This increase in technology has

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<sup>5</sup> Source: (<http://www.nyse.com/about/history/1089312755484.html>)

allowed investors to buy shares on websites without even needing a stockbroker. The relative ease with which almost anyone can now invest is a tremendous asset to the stock market.

An advantageous effect of the rise of technology and increase in the volume of shares traded is a decrease in transaction costs. Because of the larger number of shares being traded each day, it is subsequently less expensive for an investor to trade. This lowered transaction costs encourages even more participants, as it is less costly for a potential investor to enter the market. Additionally, with more investors participating, the market approaches perfect competition, under which the market will run most efficiently

#### Influence on Society

The stock market itself provides a benefit to society in its design alone. The concept of the stock market is to provide investors the opportunity to purchase a portion of a company. The company receives funds that it can in turn use to develop new products or services that could be advantageous to the public. The investor, at the same time, by owning part of the company has the opportunity to prosper along with it.

However, with the mutual benefits recognized by both firms and investors comes the possibility of mutual loss. If the company launches an unsuccessful product that it was depending on for survival, or if it cannot stay competitive in its market, its market share will inevitably decline. This will cause investors to lose money, most likely sell their shares, and cause new investors to shy away from this seemingly unprofitable investment. If the company continues to struggle there is a significant chance that it will go bankrupt and become a defunct operation. Whatever shareholders remained in the

company will invariably lose their entire investment, if they do not have the foresight to sell their shares.

While the economy and current events often impact stock prices, the converse can also occur. The stock market crash of 1929 is a blatant example of the negative impact the stock market can have on society. Because many people had lost so much money during the crash, an overall loss of faith in the American financial system occurred. The Great Depression followed in the ensuing years.

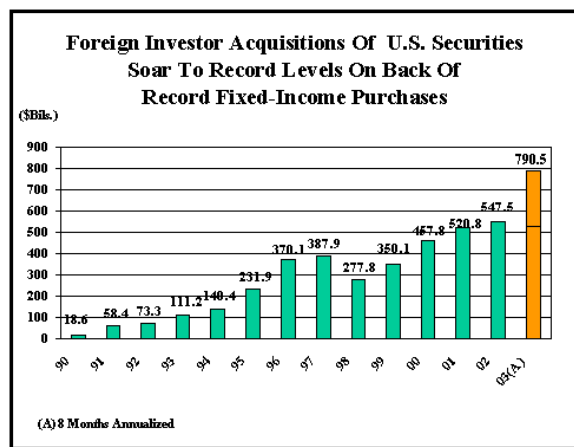
The crash is an extreme example of the negative effect the stock market can have on society, but it can also have a positive effect. From 1954 to 1969, the United States enjoyed a period of economic prosperity and a high standard of living, in part due to the success of the stock market. After World War II, many Americans had regained faith in the investment process, and “having a stock broker became as necessary as having a minister or a psychiatrist in the new American middle-class society” (Geisst, ch.9, p.274, 1997). This abundance of investors provided firms the capital needed to expand their operations, creating better products for society and creating more jobs. The success of companies encouraged more investment, and in this way, the market would continue to feed itself. Because of widespread investing and an industrial boom, the stock market helped create a better life for many Americans in the 1950s.

A similar situation occurred in the mid-1990s during a time of massive mergers and booming start-ups. After suffering a tremendous crash in 1987, the market floundered for the early 1990s. However, in late 1994 and into 1995 large conglomerates began to merge to save costs instead of laying-off workers, and the success of these mergers was reflected in the stock market (Geisst, 1997). Mutual funds became very

popular during this period, and the large increase in overall investor activity bolstered the market even more. The market’s extreme success encouraged even more investors to participate, and through this cycle, the market continued to grow in strength and popularity.

Global Markets and Globalization

While the United States “stock and bond markets represents roughly 50% of the total value of all the world’s stocks and bonds,” many American investors look overseas for investment prosperity (Sease & Prestbo, ch. 7, p.243, 1999). However, like any investment, the opportunity for success is coupled with risk, due to lack of information and currency risk. Another aspect of globalization that affects investors is that many large corporations have developed into multinational businesses, creating more of a global economy and a greater interest in overseas activities for American investors. These global businesses can provide an opportunity for investors as well, as it is possible to “get exposure to international markets while avoiding currency risks by buying shares of U.S. multinational companies with extensive operations abroad” (Sease & Prestbo, ch. 7, p.243, 1999).



**Figure 2.5: Foreign Investment in U.S. Securities**  
 Source: www.sia.com



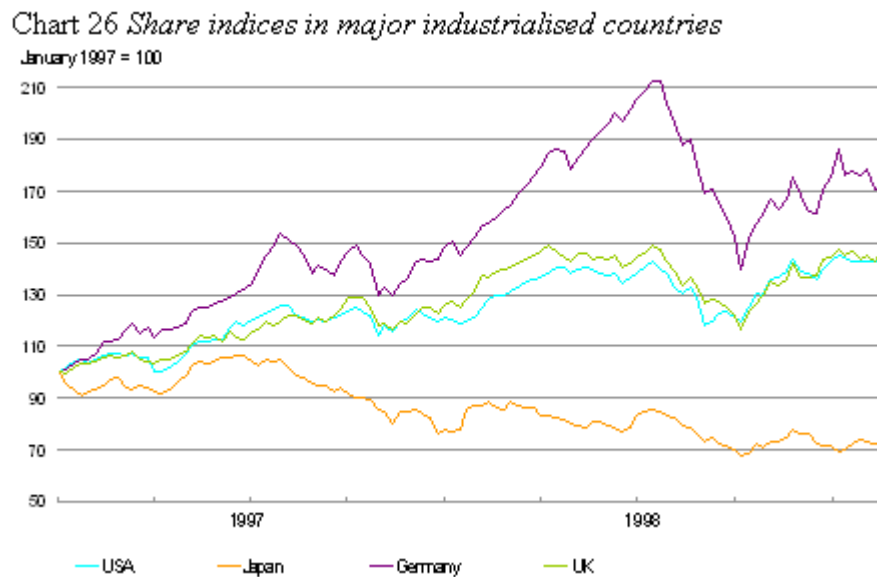
At the same time, foreign investors have become much more active in the American market. Figure 2.5 shows the tremendous growth foreign acquisitions of U.S. securities from 2002 to 2003. While there was a moderately steady growth in foreign purchases of American securities through the late 1990s, since 2000 the numbers have been climbing to record levels. The advancement of global markets played a tremendous role in the increase. This demonstrates how globalization is benefiting investors domestically and abroad, as it has enabled a much wider degree of participation in all markets.

There are many attractive aspects to global markets. The fact that international economies move in cycles that are not necessarily in sync with the United States economy, provides investors an opportunity to participate in a potentially booming market while the domestic economy is floundering. This is a form of diversification, protecting investors in the case “that an economic downturn at home could be offset by stronger performances abroad” (Morris & Morris, p. 80, 2004). This can work against global investors as well when foreign markets begin to struggle causing losses for these investors.

A second risk and return tradeoff presented by global investing is currency risk. Currency risk is the risk associated with the fluctuations in the value of currency. If an investor invests \$20,000 American dollars in a European market with an exchange rate of \$1 equal to 0.90 euros, the investor will have purchased 18,000 euros worth of stock. If the stock price increases by 20% to 21,600 euros, the investor may sell anticipating financial gains. However, if in the time it took the stock to grow the dollar has weakened to \$1 equal to 1.10 euros, the investor receives \$19,636.36, and is faced with a loss

despite a strong gain in the initial investment. While this can work to the investor's advantage as well, currency risk is a significant variable that can undermine a fantastic investment and bolster a weak investment.

There are multiple opportunities to invest overseas, with at least one market open at any given time during a day. Some major markets outside of the United States include London, Singapore, Tokyo, and Wellington (Morris & Morris, 2004). While these markets do provide the opportunity for investors to diversify, the movements of some markets play a role in what happens to other markets. Some causes of this global market reaction are multinational firms that trade on many markets and increased overseas activity by investors. This increase in international trading is due largely in part to advancements in technology and communication, providing traders around the world access to information regarding other markets.



**Figure 2.6: Share Indices in Major Industrialized Countries**  
Source: [www.nationalbanken.dk](http://www.nationalbanken.dk)

Figure 2.6 shows the indices for the markets of some of the most developed and economically successful nations in the world. From this graph, one can see that foreign

exchanges often do move together in cycles, but not always with the same volatility. For example, the growth of the German index dwarfs those of the other nations, but its decline is equally drastic.

## 2.4 Analysis of Stocks

Before entering the stock market, investors should carefully examine the conditions in which they will be investing. The economy can impact stock prices. An investor should be aware of large events that could weaken confidence and subsequently damage the market. Additionally, investors should know which industries have been recently successful, and which sectors can be used together to reduce overall risk. Once an investor has selected sectors in which to invest, strong companies within the industries should be chosen.

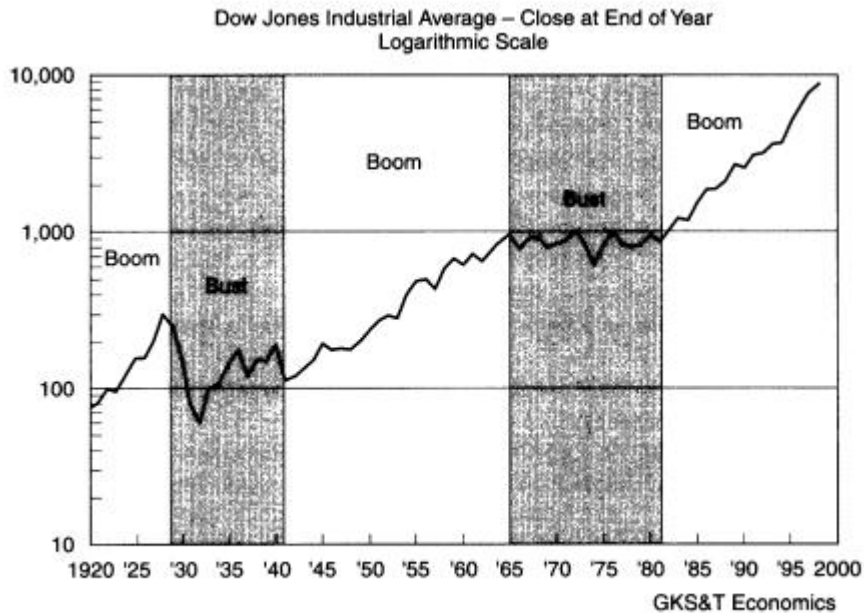
### Economic Analysis

When investing in the stock market, an investor should have an idea of what direction the economy is headed. While there are varying theories regarding how much of an impact the economy has in the stock market, and vice versa, it is important to have a general understanding of the economy beforehand. Historically, economists have observed an economic cycle of upturns and downturns. During an economic downturn, the demand of goods outweighs the supply, which consequently increases the price. At the higher price there is less demand, causing a reduction in price and an increase in demand, which restarts the cycle (Morris & Morris 2004).

Economists have attempted, with modest success, to predict when upturns and downturns will occur and how they will affect the country's overall economy. Investors potentially stand to gain a lot from an accurate prediction of the direction the economy is

headed, as the stock market moves “in anticipation of what is happening in the economy today” (Sease & Prestbo, ch. 3, p. 86, 1999). However, predicting the economy is a very fickle science, and many economists change their forecasts frequently. Because of this, it is difficult for any investor to rely heavily upon an analysis of the economy to provide insight for stock market related decisions. In fact, studies have shown that investors are better off flipping a coin or going against the recommendations of an economist (Sease & Prestbo, 1999). Despite the fact that it is not wise to invest solely based upon economic predictions, an investor should still have a strong sense of economic conditions. Sease & Prestbo (1999) recommend knowing what direction the Federal Reserve is headed with regards to monetary policy. For example, if the Federal Reserve increases the money supply, investors will expect an increase in the inflation rate, and also in the interest rate (Brigham & Houston, 2004). Investors need to be aware of the direction of the interest rate, as it plays a large role in all investing activities.

While many successful investors believe the economy cannot be used to predict the stock market, the converse is slightly more accurate. “The stock market allows millions of investors to express their opinions (using their own money) on the outlook for the future on a daily basis” (Wesbury, p. 8, 2000). Using this logic, one can begin to see the similarities between the boom/bust cycle in the economy and the similar cycle in the stock market, as shown in Figure 2.7. The economy is affected in this way because a bull market is a reflection of investors’ willingness to place money in the market and to spend money on products and services.



**Figure 2.7: DJIA versus U.S. Economy**  
Source: Wesbury, 2000

The grey section in Figure 2.7 shows when the economy is in a downturn, while the white sections represent an upturn. The line represents the logarithmic average of the Dow Jones Industrial Average, a common indicator for the direction of the stock market. When interposed over each other, it is clear to see that the stock market and the economy often work in the same direction, as the Dow Jones average is moving upward in the white sections and is stagnant in the grey.

### Industry Analysis

The next, more-focused, point of interest for an investor should be the industry or industries in which he or she intends to invest. Industries, or sectors, consist of a group of companies that offer similar products or services to the consumer. In many cases, a few of the leading companies in the industry can serve as a moderately accurate indicator of how the entire sector is performing. For example, Microsoft is a leader in software development, and for the most part all software developing firms will demonstrate similar

gains and losses. This is not always the case, however, as a leading company may issue a product far superior to its competitors, enhancing its market value but not the rest of the sector.

Stocks in the same sector not only perform similarly, but also tend to split around the same time. An example occurred when the pharmaceutical company Walter Lambert's stock split, and within six months Bristol-Meyers Squibb, Merck and Pfizer among others had done the same (Sutton, 2001). Certain industries can receive a boost from different seasons, benefiting all companies in the sector. When the winter brings cold weather, oil heating companies all benefit and their stocks reflect it. It is important for investors to consider all aspects that could be affecting industries in which they plan on investing.

Because sectors generally fluctuate together, it is sensible for an investor to place funds in multiple industries. If done correctly, an investor can create a portfolio where a loss in one industry is offset by a subsequent gain in another industry. Through this form of diversification, an investor can substantially reduce risk. When choosing an industry, an investor should look to recent trends to determine the overall strength of a sector. Additionally, historical data can show which sectors rise when others fall, which can help an investor create a balanced portfolio.

### Company Analysis

A company is an organization of people working together to produce a product or service for profits. The ability of a company to perform depends on its strengths and weaknesses related to its internal and external environments. "The internal aspects have to be interpreted with one eye on what is going on outside, and the external have to be

related to what is happening inside” (Jenster & Hussey, 2001, ch. 1, 11). A company that neglects either of these two environments will have difficulties. If a company is producing something internally that the external sales base does not want, no sales will be made. If the external sales base desires a product that cannot be produced internally also no sales will be made.

Investors are looking to choose the best companies. “In many areas it is not enough to be good, as the future profitability may depend on being among the best” (Jenster & Hussey, 2001, ch. 1, 20). They should choose the companies that are the best industry performers. Competition is a constant threat to a company. A company that is able to deflect competition will have more success. Investors need to investigate the competitive arrangement and profit potential of an industry. They need to consider current rivalries, threat of new entrants, potential substitutes, bargaining power of suppliers, and bargaining power of buyers (Reilly & Brown, 2003). A company can use either an offensive or defensive competitive strategy. An offensive strategy is one where a firm uses its strengths to affect the industry’s competitive forces. Wal-Mart uses its buying power to gain cost advantages from its suppliers. This cost compromise allowed Wal-Mart to grow to an industry leading company. A defensive strategy is when a firm uses its capabilities to prevent competitive forces. An example is the way Coke-Cola uses its brand name through advertisements.

A firm can either take a low cost or differentiation competitive strategy with their products (Reilly & Brown, 2003). A company that uses a low cost strategy is aiming to become the low cost producer and cost leader. Some cost advantages include economies of scale, low operation costs, and technology. Wal-Mart is a low cost source. A

company that uses a differentiation strategy has some sort of product uniqueness. Some differentiation methods include the product itself and the way the product is sold. Dell uses a differentiation strategy in the way it sells its custom ordered computers.

Differentiation companies try to obtain a premium price. Investors should re-evaluate a firm's competitive strategy overtime because often it changes because of outside factors.

Investors should examine a company's strengths, weaknesses, opportunities, and threats (Reilly & Brown, 2003). Strength gives the firm an advantage. It can include brand image, customer service, superior products and management, and market leadership. Strengths have to be continually developed because the economic environment is constantly changing. Weakness results when the competition has an edge. Firms should identify weaknesses and build solutions to solve them. Opportunities are options that a firm can pursue for gains. For an example, an opportunity could be expanding operations internationally. Successful companies will look to seize opportunities. Threats are factors that negatively affect a firm. A threat could be a new government regulation. Companies that can anticipate threats and adapt will have more success.

Investors need to evaluate a company's financial performance. Financial performance gives inclinations of a company's overall success and failure (Jenster & Hussey, 2001). Investors can discover a lot of operation insights by looking at financial documents. They can see how a company is financing debt, if inventory is being turned over effectively, and the return on assets. Investors should look at liquidity ratios, asset ratios, debt ratios, sales ratios, and equity ratios to determine the company's strengths. Importantly, financial ratios have very little meaning unless they are compared to



something. Internally, investors should compare ratios to previous years and projected targets. Externally, investors should compare ratios to competitors. “Without the comparison any ratio loses much of its power, as it is harder to judge whether it is good or bad” (Jenster & Hussey, 2001, ch. 2, 31). Investors should target companies with the strongest financials.

Investors are looking for companies that present value and provide benefits to customers. The value might be in the company’s superior customer service or product. They are looking for firms that grab opportunities and alleviate threats. Investors are looking for companies with growth and profitability potential. They want companies with large market shares that produce customer satisfaction. A company that stays ahead of risks is valuable to the investor. Investors do not want companies that are over depending on a particular customer or supplier. A company that is flexible and can anticipate changes will have more success. Investors are looking for companies with knowledgeable and skilled management and employees that can effectively use their resources. They are looking for companies that are not only strong now but will continue to be in the future. The value of a company is not only driven by past performance but future expectations (Jenster & Hussey, 2001). Future expectations are what drive stock prices. Knowledge will increase investor’s odds in finding great companies. The more information the investor knows about companies the better chance he or she will have in finding great ones.

## 2.5 Stock Investing Strategies

“Investing in stocks is an art,” that is very difficult to master (Lynch & Rothchild, 1989, ch. 1, 49). An investor invests in stocks for profits. Preparation sets apart the

winning stock picker from the one who loses. Knowledge and information give the investor a competitive edge. Good and bad stock advice is everywhere. Investors should take time to research the fundamentals of the company and qualify its accuracy. “One of the biggest troubles with stock market advice is that good or bad it sticks in your brain” (Lynch & Rothchild, 1989, ch. 17, 248). It is very difficult to predict market conditions. The market has a history of sporadic fluctuations. “Small investors tend to be pessimistic and optimistic at precisely the wrong times, so it is self-defeating to try to invest in good markets and get out of bad ones” (Lynch & Rothchild, 1989, chap. 1, 48).

Having a story about the company aids the investor in purchasing stocks. If the story is positive, the investor should buy the stock. If the story stays unchanged the investor should hold onto the stock. If it becomes unfavorable the investor should sell the stock. “Buying great companies that are leaders in their industries leads to a higher percentage of success” (O’Neil, 2002, ch. 5, 38). The best companies are the ones with the best earnings and profit margins not the ones with the most well known names. Investors can never relax because the market is always changing. No companies are immune forever from problems including changes in the market (O’Neil, 2002). An investor should never let himself or herself get discouraged and give up the stock market. Everyone should prepare himself or herself to recognize the numerous winners that will come (O’Neil, 2002).

An investment style is the approach used to select stocks to reach a set of investment goals. Using an investment style makes one have better odds as an investor. No style is better than any of the others. What differentiates the styles apart are the potential rewards they offer, risk degrees, time commitments, and the different skills they

require. Within each strategy different personality traits are more desirable and provide a higher chance for success. Investors should choose a style that represents their personality. “Any investor can be a winner, because there is no best style; there is only the best style for you” (Brown & Bentley, 2002, ch. 3, 39).

### 2.5.1 Evaluating a Company

The sections below discuss strategies to use when evaluating a company and its stock. Once an investor recognizes what type of company he or she is dealing with they will have an idea of how to evaluate it. If a stock appears strong it should be bought and held until its story changes.

#### (A) Overcoming Risk in Stocks

Stocks are risky and guarantee the investor nothing in return. Fortune can change instantly; a once profitable company can very easily become unprofitable. Investors can overcome risk with the discipline to stick to a system. They should take time to investigate companies and their stocks. “An investment is simply a gamble in which you’ve managed to tilt the odds in your favor” (Lynch & Rothchild, 1989, chap. 3, 74). By asking questions about companies the investor can learn which ones are likely to prosper and which are likely to fail. Investors should keep a watchful eye because there is a lot of information in the open and changes in this information that can give them an edge. For example, a jump in earnings can be a sign to take a closer look at a company.

“Consistent winners raise their bet as their position strengthens, and they exit the game when the odds are against them, while consistent losers hang on to the bitter end of every expensive pot, hoping for miracles and enjoying the thrill of defeat” (Lynch & Rothchild, 1989, chap. 3, 75). There is no point for investors to buy or hang onto stocks

that are strugglers. An investor must go on to the next hand when defeat was the fortune of the last, with confidence that their strategy will thrive over time (Lynch & Rothchild, 1989). They must accept that unexpected events and losses will happen. The amount of winnings one receives is directly related to risk. Big winners come from high risk categories. Investors will have to make buy or sell choices without complete information. As long as the game is played correctly, the stock market is a chance worth taking. Investors do not have to win with every stock they pick. As long as big losses are avoided, one stock's loss can be recovered by another's gain. "Six out of ten is what it takes to produce a successful record on Wall Street" (Lynch & Rothchild, 1989, ch. 3, 75).

Stocks are likely to produce profits if they are held for a long time. But, timing is still important when investing. An investor is looking to buy the right stock at the right price, at the right time to maximize gains. Three emotions cause humans to be horrible market timers: concern, complacency, and capitulation (Lynch & Rothchild, 1989). The investor is concerned after the market falls, which prevents him or her from buying excellent companies at good prices. They are complacent when the stock is purchased at higher prices and it rises. Instead the investor should be worried at this point. The investor capitulates and sells in awful times when the stock price drops. A long term investor should not panic in unstable periods and sell for huge losses.

Investors that do not deviate from their investing plan will have a greater probability of success. If a good stock price goes down an investor should not panic. They should stand behind their stocks as long as the fundamental story looks good (Lynch & Rothchild, 1989). Investors should not fret about the last event that happened,

but prepare themselves for upcoming ones. Someday there will be another recession and someday the recession will be over. Forecasting markets is not essential to make profits in stocks. Buying great companies and picking the right stock is how profits are made (Lynch & Rothchild, 1989).

### (B) Finding Stock Opportunities

An investor should take advantage of what is already known. Everyone is presented frequently with opportunities to gain a competitive edge in picking stocks. A good place for the investor to start finding good stocks is at home. An investor can be presented with an edge at work or at the shopping mall. The first tips of Dunkin' Donuts successes were to its customers. If a doctor is presented with a new product that makes it easier to perform surgery he or she should look into who makes the product. A person with an edge is in position to outperform those without it. A doctor should invest in drug companies not in grain companies. "Invest in things you know about" (Lynch & Rothchild, 1989, ch. 6, 104). Investors should look for opportunities that have yet to be discovered.

Just because a particular store is always crowded does not make it a good investment. An investor is searching for opportunities where the assets per share exceed the price per share. Earnings make stock prices rise. If a new product is immensely successful but only a small portion of the sales contribution to a company, it will only contribute a small portion of earnings. Thus, the overall benefit will not be substantial to stock prices.

### (C) Stock Categories

The size of the company is a key indicator of what the investor will get out of it. Big companies will not have large stock moves (Lynch & Rothchild, 1989). The biggest moves will be experienced from smaller companies. There is nothing wrong with owning big companies; McDonald's has been an excellent performer. An investor just needs to be aware that large companies like McDonald's will likely not produce huge gains. Big companies present more safety. For a huge company like Microsoft to quadruple in size is unlikely. It's hard to budge a stock price with billions of shares outstanding because of such a large supply (O'Neil, 2002). Smaller amounts of stock can move up in price more easily. But, they are more risky because they can go down just as fast as they go up.

Once the size of the company is established, an investor should determine what class the company fits into. Some possible categories are slow growers, stalwarts, fast growers, turnarounds, cyclicals, and asset plays (Lynch & Rothchild, 1989). Slow growers are made up of very large, older companies. They are expected to grow slightly faster than the gross national product. A slow grower usually pays a regular dividend. Stalwarts are huge companies that grow slightly faster than slow growers. Earnings typically grow ten to twelve percent a year (Lynch & Rothchild, 1989). These companies offer good protection during recessions and bad times. They are not going to go bankrupt anytime soon.

Fast growers are made up of smaller companies. They grow twenty to twenty-five percent a year (Lynch & Rothchild, 1989). One of these stocks can present an investor with a very large gain. Fast growers present plenty of risk though. They tend to be underfinanced and have the possibility of quick reduction. Turnarounds are beat-up

companies with no growth on the verge of collapsing. But, when they rebound lost ground can be made up. “Three out of four big market winners in the past were growth stocks and one in four was a turnaround situation” (O’Neil, 2002, ch. 2, 18).

A cyclical company profits rise and fall in normal ways. It expands then contracts over and over again in cycles. These stocks rise and fall in much greater percentages than the whole. Timing is everything for the investor. The automobile industry is an example of a cyclical because people tend to buy cars in cycles. When the economy is doing well more people are likely to buy new cars. An asset play is a company that is sitting on something valuable that the mass overlooked. The company could own a very valuable piece of real estate.

Over the years a company will switch between these classifications. Companies go through lifecycles, a startup moves to rapid expansion, then toward maturity. A fast grower will eventually slow down. The rapid growth phase presents the most gain opportunities. Putting stocks in categories helps in developing the story; at least the investor knows what the stock is supposed to be (Lynch & Rothchild, 1989).

#### (D) The Company Story

Getting the story of a company is much easier if you understand the basic business (Lynch & Rothchild, 1989). Look for companies that have a niche or edge. A company is valuable if no one else can compete with it. It becomes more valuable if people must keep buying its products over time. If insiders of a company are buying stock it is a very good sign of success. When management owns stock in their company they will pay more attention to stock prices and its benefits. A company buying back shares rewards its investors (Lynch & Rothchild, 1989). This means that the company

has confidence in its future. A company buying back stock increases earnings per share and can greatly help stock prices.

Value can be defined as a company's ability to create earnings. When an investor buys a stock he or she is betting on the company's likelihood of earning money in the future. Earnings and assets make a company have worth. It might take time for a company's stock price to match a company's true value, but over time it will. Earnings and the assets of a company determine how much the investor should pay for its stock. Earnings decide the fate of a stock (Lynch & Rothchild, 1989).

All debates about earnings involve the price to earnings ratio (P/E). This ratio is the link between the stocks price and the earnings of the company. The P/E ratio should be used to evaluate if a company is fairly priced relating to its earning potential. A P/E ratio that is reasonably priced will equal its growth rate (Lynch & Rothchild, 1989). If the P/E ratio is less than the growth rate it is a good price. In general, a P/E ratio that is half the company's growth rate is encouraging and one that is twice the company's growth rate is a bad sign (Lynch & Rothchild, 1989). P/E ratios are generally highest for high growing companies. An investor should justify if the P/E ratio is low or high for the industry and company's normal levels over time. Past data shows that if investors are not ready to pay twenty-five to fifty times earnings they have eliminated some of the best and most profitable investments (O'Neil, 2002).

Investors should look for what the company is doing to bring added richness. Something has to happen to keep the earnings growing. It takes something new to bring a large stride in stock price (O'Neil, 2002). It could be a product selling rapidly or new management sharpening up operations. The investor needs to look at what the company



needs to succeed and the negatives that stand in its way. They need to look at competition, the niche, burden of debt, and the market. The investor needs to know what they are expecting. If the stock is a slow grower, the investor should be thinking about the dividend. If it's a cyclical, they should think about current conditions. It's an investor's duty not to get caught up in a company and ask all the important questions. They should ignore all the rumors and get the facts. An investor should check a company's earnings over the years to see how they compare to now. If possible, knowledge could be gained for the investor by visiting a company and getting its feel. The unexpected has the potential to be very profitable for the investor. An investor should spend time checking how his or her stocks are doing. The more the investor knows about the company the better.

Investors should check how many shares are owned by intuitions. Large amounts of demand push prices up. "A winning stock doesn't need a huge number of institutional owners, but it should have at least several" (O'Neil, 2002, ch. 6, 42). A smart investor needs to know the number of institutional buyers and who they are. Looking for stocks with some of the better portfolio managers will present the investor with some confirmation about its quality. When large funds establish new positions, they will likely not sell in the near future. Institutional buyers make up a vast portion of stock action. "Institutional buying and selling account for more than 70 percent of activity in most leading companies" (O'Neil, 2002, ch. 6, 44). Substantial institutional ownership is not good for the investor and can lead to large selling if things turn bad.

## (E) Financials

The investor must check out a company's financials. They should look into the company's current position. Investors should check current assets and current liabilities. They should justify if current liabilities can be covered. More cash is a signal of success for a company. Investors should check long term debt. Debt reduction is a sign of improvement for a company. "When cash increases relative to the debt, it's an improving balance sheet" (Lynch & Rothchild, 1989, ch. 12, 194). Investors should watch out for companies that depend heavily on capital spending. "All companies take in cash, but some have to spend more than others to get it" (Lynch & Rothchild, 1989, ch. 13, 212). Large amounts of cash per share are like a hidden reimbursement. If there is ten dollars in cash per share and the stock sells for twenty, it's like the investor is only paying ten per share. As cash is piling up in a company, an investor should watch what will become of it. Investors should check the company to see if inventories are building up. Inventories piling up are usually a bad sign.

The growth rate that is important for the investor is earnings (Lynch & Rothchild, 1989). Companies will likely go nowhere with poor earnings. Earnings per share (EPS) are the total after tax profits divided by the number of common shares outstanding. This is a very important number for the investor to consider. An investor owns shares in a company, not the entire company. Net income might go up, but it does the investor no good if additional shares have been issued. Stocks the investor selects should show major percent increases in current quarterly earnings per share compared to last years (O'Neil, 2002). It's not enough just to look at the last few quarters. Seasonal factors

might misrepresent these numbers. Investors should not buy stocks if earnings have not increased eighteen to twenty percent from last years (O'Neil, 2002).

Any company can report good earnings from time to time. "A standout stock needs a sound growth record during recent years, but also a strong current earnings record in the last few quarters" (O'Neil, 2002, ch. 2, 19). Having gains in quarterly earnings and yearly earnings creates a greater chance for a winner. "Look for annual earnings per share that have increased every year for the last three years" (O'Neil, 2002, ch. 2, 16). A couple of bumps in earnings are not necessarily bad. The best of companies have slow downs. It's not enough for an investor just to consider past data. They should look ahead to see what future forecasting earnings are. Expectations of the future determine stock price. Investors are looking for moderately fast growers, twenty to twenty-five percent (Lynch & Rothchild, 1989). A twenty percent grower over time is substantially better than a twelve percent grower, all things else equal.

Improved earnings should be supported by sales growth (O'Neil, 2002). This shows that earnings are not just short term by selling a one time item. Investors should investigate costs. When profit margins are increasing considerable earnings can be gained. The company with the highest profit margin and the lowest cost operation has a better chance of survival (Lynch & Rothchild, 1989). Investors should look for the strongest industries. A strong industry will likely have a few advancing companies. Investors should look for industries that have a few companies with growing earnings (O'Neil, 2002). Investors should consider choosing one of these companies.

Investors should look at debt to equity. This allows the investor to uncover the financial power of a company. "A normal corporate balance sheet has 75 percent equity

and 25 percent debt” (Lynch & Rothchild, 1989, ch. 13, 202). Debt is very important in determining if a company will survive during a crisis. Investors should investigate a company’s debt structure and which type of debt it is using. Bank debt is unfavorable to the investor because it can be due on demand. Funded debt can never be called in. Investors should consider companies that are reducing debt to equity over two to three year periods (O’Neil, 2002). Commonly, well managed companies will have high returns on equity. Research illustrates the greatest winning stocks show returns on equity of seventeen percent (O’Neil, 2002).

Giving dividends prevents companies from using money on other unprofitable ventures and is attractive to some investors. Dividend stocks are also sought after by other investors in times of crisis. But, investors ought to make sure dividend stocks will deliver during a crisis. Companies that do not pay dividends will grow faster because they are placing those profits back into the company for expansion.

Investors should not pay too much attention to the book value of a company because it very often does not properly represent the value of a company. Investors should watch out for overvalued assets. Debt represents a genuine number and cannot be covered by overstated assets. Hidden assets, like brand names and patents, might be hidden from book value and present tremendous value in asset plays. Added bonuses that are hidden from the books can be gained when purchasing a company. A company could own valuable real estate or shares in another company that is not representative on the books.

### (F) Portfolio

Investors should not rely on a fixed number of shares to keep in the portfolio, but instead investigate how good they are (Lynch & Rothchild, 1989). The investor should own as many stocks that percent him or her with an edge. They should not make unwise diversifications. Small portfolios should own between three and ten stocks (Lynch & Rothchild, 1989). Odds are improved by owning numerous commanding stocks. “It seldom pays to invest in laggards” (O’Neil, 2002, ch. 5, 41). Investors should rotate and get rid of stocks depending on their stories. They should get out of bad situations and into better ones.

### (G) Stocks to be Cautious of

Stocks that should probably be avoided by investors are the hottest ones in the industry (Lynch & Rothchild, 1989). Hot stocks usually go up fast with no value attached to them and thus come down just as fast. If a company has no way to guard itself from competition, success is only going to be a short breathe. Investors should avoid companies that make unwise acquisitions which are often in companies beyond their understanding. Companies with the most success acquire related businesses. Investors should avoid long shot companies with no results to back them up. Investors should refrain from purchasing these companies until they have established a record (Lynch & Rothchild, 1989).

### (H) Buying and Selling

An investor has the choice of investing in thousands of strong opportunities. Investors should limit themselves to stocks that are exceptional (O’Neil, 2002). Stocks should be bought by investors when strong companies are found and the stock is at a

good price. The end of the year is a good time to find stocks with lower prices because of the delight of the tax loss (Lynch & Rothchild, 1989). Opportunities can be found for the investor that can stomach to buy solid companies during market collapses.

Investors should take profits when they can, a certain gain is better than a loss, but when the right stock is found and working they should hold on to it (Lynch & Rothchild, 1989). It's much harder for an investor to stick with a winner than a loser. Economy fiascos are happening all the time. Investors should try to ignore much of these and only consider conditions that affect the stock's businesses in a negative way. The investor should use what he or she knows from buying the stock and its category to get an idea of when to let it go (Lynch & Rothchild, 1989). If a cyclical's industry starts to turn unfavorable an investor should consider selling it. If the investor is not confident enough to buy more shares in a company it should be sold.

Investors must remember there is no high or low level that a stock can go to. Once a stock goes down there's no saying if it will come back up. It does not matter if the investor buys a stock for twenty dollars or five dollars, they still risk losing everything. Neither is a safer investment for the investor. Companies are dynamic; there is simply no stock that the investor can afford to ignore (Lynch & Rothchild, 1989). An investor should not stress over big gains that he or she let pass. Investors should remember that investment riches are not made over night.

### (I) Ongoing Process

Participating in the stock market is an ongoing process for investors. Current stock prices say nothing about the future. "Every few months it's worthwhile to recheck the company story" (Lynch & Rothchild, 1989, ch. 14, 222). Investors should check and

make sure earnings are holding up to expectations and something will keep them rising. They should evaluate if insiders are buying and if the balance sheets are strong.

“Understand the nature of the companies you own and the specific reasons for holding the stock” (Lynch & Rothchild, 1989, ch. 14, 231). Investors get hints from the stock’s categories to benchmark how they should be performing.

Patience and knowledge are important tools for the investor. Impatience might cause the investor to abandon investments at wrong moments or take on unnecessary risks (Lynch & Rothchild, 1989). Some years the investor will make twenty percent on investments, others only five and some a loss of ten. Sticking to a strategy through the good and bad years can maximize investor’s gains (Lynch & Rothchild, 1989). Investors should be careful of the cost of trading. The more they trade the harder it becomes to keep high percent gains. Investors do not need to beat the market by a great deal. “An ambitious but achievable goal is to do two to five percentage points better than the market” (Miller, 2003, ch. 4, 51). To compensate the investor for his or her time, they should make twelve to fifteen percent over time (Lynch & Rothchild, 1989).

### 2.5.2 Major Investing Strategies

The sections below discuss major investing strategies. No one strategy is better than the others. The only difference is in the risks and different skill sets each requires. An investor should choose a strategy that best fits them. Strategies can also be combined and used together to form hybrids.

#### (A) Income Investing

Income investors invest in stocks that pay dividends. They are looking for a stream of income overtime. Income stocks are relatively safe. Income investors are

concerned with the likelihood of the dividend payments continuing overtime. They should look at the stock's dividend history for verification. High interest rates have negative effects on income investing and often cause income stock prices to go down. Forming an income portfolio does not take much time. An investor is just searching for the stocks with the highest dividend payments. Income investors are low risk takers. They tend to be in for the long term. As of recent, income investing has become a less popular strategy for investors to use (Brown & Bentley, 2002).

### (B) Contrarian Investing

Contrarian investing is a strategy that goes in opposition of market trends. A contrarian investor believes that the mass of investors is wrong about the market. "A contrarian strategy is based on the observation that investors tend to overreact to both good news and bad news" (Brown & Bentley, 2002, ch. 9, 191). This overreaction causes stocks in good times to become overvalued and people not to invest in bad times. A contrarian investor believes when people say the market is going to go up, it is at its peak and will go down. Likewise, they believe when people say the market is going to go down, it has already done so and is now ready to come back up. A contrarian investor needs the strength to act in opposition of what the mass is doing. They are buying when the rest is selling and selling when the rest is buying. "Contrarian investing takes a lot of investing confidence because you're going against the prevailing market sentiment" (Brown & Bentley, 2002, ch. 9, 192). Contrarian investors tend to go for not widely recognized securities and ones with low P/E ratios. They are looking to purchase stocks whose prices have falling and gain when these stocks regain popularity. This method



typically has lower risk because stocks are being purchased at the low end of their valuation.

### (C) Fundamental Investing

A fundamental investor centers on a company's balance sheet and assets. "Fundamental analysis is the study of the company" (Fontanills, 2001, ch. 7, 204). The healthiness of the company is shown by its underlying fundamentals. Fundamental investors look at the standing of current, debt, and equity ratios. "A balance sheet of a good stock has low debt, lots of cash, fairly valued receivables and inventory, and assets that are worth more than what is carried on the books" (Brown & Bentley, 2002, ch. 9, 161). Fundamental investors also look at earnings but not exclusively. They look for companies that are worth more than the stock is selling for. A building could present added value to a fundamental investor because it only lists a worth of two million dollars on the books, but is actually worth much more. Large levels of cash on the books could also present worth to them. "Investors are screening for low price-to-book value or high cash-to-price value" (Brown & Bentley, 2002, ch. 9, 165).

Fundamentalists need a great deal of time to spend on their portfolio's and stock searches. They need to be very good with numbers to find strong balance sheets. Fundamental investors need patience to wait until undervalued assets get discovered. Not much risk is presented in this style because these companies are undervalued.

### (D) Value Investing

Value investors are searching for stocks with appealing prices. They are looking to purchase undervalued stocks and sell them at full value. "What value investors are seeking are stocks priced low in comparison to their historical earnings growth and

earnings growth prospects” (Brown & Bentley, 2002, ch. 5, 79). Value investing presents low risk, especially down side risk. Value companies are already undervalued, so it is not likely for them to go much further down. A stock is considered undervalued if its growth is more than its P/E ratio. Valued stocks must have earnings potential to be considered valued. A stock can become undervalued from pessimism, rumors about competition, or the market itself. It is not likely for a value company to go out of business.

Traits of a value investor are being risk avoiders and bargain shoppers. They are patient and confident about their picks. A value deal takes time to develop and is for the long term investor. A value investor bets against the large. “Finding value means discovering something others failed to see that provides hidden value to the company and turning that discovery into a profit” (Fontanills, 2001, ch. 4, 97). Evaluating value stocks involves working with some numbers and analyzing some charts.

Value investors are not just looking for low prices, but some intrinsic, underlying, value. Thus, stock selection is very important for them. Value buyers are looking for low P/E ratios, high forecasted growths, and selling prices below price tendency (Brown & Bentley, 2002). Value stocks should to be bought when the stock displays a trend change. A crossover of stock price over a moving average is a sign of a trend change. When a valued stock gets discovered and its P/E ratio equals or rises over its growth rate the value investor should sell.

Value investors can protect their portfolio by diversification. “A value investor should maintain 10 to 15 stocks over several industries” (Brown & Bentley, 2002, ch. 5, 79). It takes time to build a value portfolio, but does not require much ongoing

maintenance. The portfolio should be reviewed regularly by the value investor. It is not as important for them to have a cash position as long as value stocks can be found.

### (E) Growth Investing

Growth investors desire to hold the fastest growing companies available. “Growth investors seek a minimum annual growth rate of 15 to 20 percent, generally much higher” (Brown & Bentley, 2002, ch. 4, 49). They are expecting these stocks to produce great gains. But, with this potential for high gains comes risk. Growth stocks are high risk investments. Growth companies reinvest profits into the company for ongoing growth (Fontanills, 2001). These stocks are characterized as selling at high price to earnings ratios (P/E). This makes growth stocks very vulnerable to bad news and large potential drops. Growth investing is very popular. “Throughout the past decade, investing in growth stocks has been one of the most popular styles of investing” (Fontanills, 2001, ch. 4, 95).

To be a growth investor one needs to be highly patient and have a good deal of risk tolerance. Growth investing does not require a great deal of time because it is generally longer termed. Growth investors do not need to be highly skilled in numbers and reading charts. But, they do need discipline and the backbone not to panic through minor fluctuations in stock price.

Growth investors have to place special importance on picking the right stocks. They are looking for high yearly and quarterly earnings growth, expanding margins, insider buying, and reasonable P/Es (Brown & Bentley, 2002). Growth stocks can be found anywhere. But, they are more likely to be found in a growth industry. The size of a growth company is not of terrible importance. Growth companies just need to present

earning possibilities. Better technology, superior brands, and finer management present potential for growth stocks.

Growth stocks are no longer considered high growers when earnings stop or slow down. A slow down in growth is not necessarily bad for a growth stock, but the growth investor should justify if the slow down is just temporary or will continue. Declines in margins are also a bad sign for growth stocks. Growth investors have to be cautious of inappropriate P/E ratios. A company might slow down in growth while its P/E ratio continues to expand. “You simply cannot pay more for growth than the underlying earnings can sustain” (Brown & Bentley, 2002, ch. 4, 57). Growth investors should use the same indicator to purchase a growth stock as they would to exit. A possible buying or selling indicator would be a moving average. If the stock drops below a hundred day moving average an investor should consider selling.

Growth investors can protect their growth portfolio by diversifying their holdings. “Building a portfolio of 12 to 15 stocks over time, spread over three to five industries would shelter you from a sudden decline in one of the stocks” (Brown & Bentley, 2002, ch. 4, 68). The portfolio should be watched on a regular basis by growth investors. If the market turns negative, they should consider increasing cash positions for protection.

#### (F) Momentum Investing

Momentum stocks are constantly in motion and tend to have a burst of momentum in short periods of time. Momentum investors try to be in on stocks as they move. “Stocks exhibit about 80 percent of their movement over 20 percent of the time” (Brown & Bentley, 2002, ch. 6, 105). Momentum investors are looking to get in and out at the ideal times. There is high risk in momentum investing because of fast moving

drops in prices. Momentum investors are looking for big rewards quickly. Momentum investing presents this quickness.

A momentum investor needs to be disciplined. In the nature of this trading, investor buy and sell decisions happen in a small time frame. Quickness needs to be used by momentum investors on entry and exit signs. Momentum investors that take quick losses can save themselves. Momentum investing takes a big time commitment. Stocks need to be investigated as much before the purchase as after by momentum investors. Stocks and charts need to be constantly compared and watched by them. Charts and number skills are important for the momentum investor. “As a momentum investor, you must act quickly and decisively, but once you’ve learned to spot a momentum stock and learned your rules for entry and exit, your system will make those decisions for you” (Brown & Bentley, 2002, ch. 6, 108).

Momentum stocks have rapid price movement. High momentum usually runs from earnings reports. Risk can be lessened by finding a momentum stock in a high performing industry. Risky momentum involves stocks rising on rumors. Momentum investors have to justify why a stock is moving. Moves based on rumors can bring horrible downfalls. Momentum stocks can be difficult to find. Momentum investors can be short or long termed. They should look for stocks that are breaking out of a base, have high price percent changes, short term earning growth, and money flow (Brown & Bentley, 2002).<sup>6</sup>

When momentum starts and stops is a difficult question to answer. Sometimes momentum changes can be short, while others more rapid. Both enter and exit strategies

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<sup>6</sup> A base period is when the stock trades in a small range over a long period. Money flow compares volumes on up and down days.

are very important in momentum investing. “The trick to momentum investing is being able to anticipate when the primary trend is going to reverse, so that the investor is able to get out of the position profitably” (Fontanills, 2001, ch. 4, 99). Momentum investors look at trends and volume as indicators. A stock falling with its index staying strong is a good sign for the momentum investor to exit. Momentum investors should use the cause of momentum to judge if the stock still remains strong.

Momentum portfolios use diversification but in smaller degrees. “Momentum investors typically hold 5 to 10 stocks at any given time” (Brown & Bentley, 2002, ch. 6, 108). This is because of the short nature of momentum investing and high time commitments. Momentum investing requires the investor to keep a constant eye on his or her portfolio. Cash is likely only to be used by the momentum investor when proper stocks cannot be found.

#### (G) Technical Investing

Technical investors believe the market is efficient, thus all the latest news, earnings, and company financials are already accounted for. “Pure technicians believe that everything about a company is likely to be factored into the stock price” (Brown & Bentley, 2002, ch. 7, 131). Technicians, chart readers, are concerned only with patterns on stocks. They use indicators to decide when an upward trend begins and ends.

“Technical analysis is built on the theory that the market prices display repetitive patterns that can be tracked and used to forecast future price movements” (Fontanills, 2001, ch. 9, 248).

Patterns have to be recognized by the technical investor. “The art of reading charts is the art of pattern recognition” (Brown & Bentley, 2002, ch. 7, 132). Technicians

are looking for an up or down trend. A pattern is a signal to watch the stock more closely for a buy or sell signal. A possible pattern that a technician would look for is stock price breaking out when volume increases. Volume is usually ahead of stock price increases. “As supply decreases and demand increases, the price per share goes up” (Brown & Bentley, 2002, ch. 7, 136). Signs technicians should be cautious about is when the stock keeps increasing when volume decreases. Technician’s tasks are more complicated because volume is indistinguishable from increasing in buying or increases in selling (Brown & Bentley, 2002). A chart that does not regularly show patterns should be avoided by technicians.

A technician most important skill is chart reading. They also need to be disciplined and able to act in a quick manner. Technicians have to wait for patterns to develop. Once a technician has the skill, reading charts does not take up a considerable amount of time, but charts do need to be watched on a regular basis. The time frame a technician waits for rewards is usually short. A technician does not have to be skilled with numbers because they do not read financials. Technical investing presents moderate risks.

Technical investors will need to put a good amount of time in portfolio management. A typical portfolio will not hold too many stocks. “Five to eight stocks seems to be the norm” (Brown & Bentley, 2002, ch. 7, 144).

### 2.5.3 Advanced Trading

The section below discusses some advanced techniques used to either protect or speculate a position. These techniques are very risky and should only be used by advanced investors.

### (A) Shorting, Options, and Warrants

Shorting a stock allows the investor to profit from a stock that goes down. A short seller borrows stock from a broker. They hope to sell the borrowed item at a very high price and replace, buy back, that item at a very low price. The difference in the sell and buy transaction amounts is the short seller's profit or loss. The transaction is handled by a broker. During the time when the stock is borrowed, the short seller is required to pay all lost dividends the stock receives to the rightful owner. A sufficient balance is required to be maintained in the brokerage account. The proceeds from shorting a stock cannot be spent until the shares are paid back.

Derivatives are financial instruments whose prices are derived from something else. An option is a type of derivative. An option is a legally binding contract. The contract gives the purchaser the right to buy something at a specified price over a specified period of time. The person who issues the option is called a writer. The writer is likely to be a large institutional investor. They receive an immediate profit from a fee to the buyer for writing the option. The greater the distance from the exercise price of the option the lower the cost. Also, more volatile investments will cost more. Options are used either to speculate or hedge an investment. Speculators are looking for a gain opportunity. Hedging is a strategy to reduce risk exposure and potential loss on an asset.

A put is an option to sell a certain amount of shares at a particular price, strike price, over a period. The expectation is market price will fall. These options would be used to hedge an investment if an investor is afraid that his or her stock's price might go down in value but is not sure. The protection is the investor will be at least able to sell at



this exercise price. A speculator would buy the stock when it goes below the strike price and sell it at the strike price. The writer loses if the stock price goes down.

A call is the option to buy a certain amount of shares at a price over a period of time. An investor hedging their position would use this to cover or protect their short position to make sure they never have to pay more than the strike price. A speculator would have no position and hope the stock will rise above the strike price and be able to make a profit. The writer loses if the stock price goes up.

A straddle is a trading strategy if the investor is not sure if the stock price will go up or down. In this situation a put and call option would be purchased at the same time on the same investment. The put and call will have the same exercise price. The investor hopes the stock will rise or fall in a big enough degree to cover the costs of purchasing the options.

A warrant is an option to buy like a call. The holder is allowed to purchase a stated number of shares of stock at a particular price. It is different from a call because it lasts for a long time. A warrant is issued by the company itself. It is used as an added sweetener. A bond is made more attractive by allowing the buyer of a bond to buy one or two shares of common stock for a time period. In turn for this added benefit the issuer is able to use lower interest rates.

Short selling and using options are very risky and should only be used by experienced investors. Shorting is risky because there is no saying how much can be lost. It is not like a normal transaction where the stock can fall no lower than zero. An investor must make sure he or she has the resources to hold onto the stock if it does not go down right away or worse upwards. An option is only good for a short period of time,

a few months. Options rarely get executed and expire worthless. After the option expires, an investor has to purchase another. Odds of winning are very low for the amateur investor (Lynch & Rothchild, 1989).

## 2.6 Stock Simulation Website

For the stock simulation, we have chosen to use STOCK-TRAK. We chose STOCK-TRAK because it will satisfy all of our investing needs and more at a reasonable price. It is also widely used by thousands of students and others each year. STOCK-TRAK will give us the capability to practice stock strategies and trading and further our learning experience. It is a very wide-ranging financial simulation. STOCK-TRAK allows the trading of various securities including; stocks, bonds, options, futures, and mutual funds. Upon registering we will receive two brokerage accounts with an imaginary cash balance of \$100,000 in each. A maximum of \$50,000 can be placed in a single security. STOCK-TRAK gives us the ability of normal buying and selling of securities and some advanced features. It allows buying on margin, short selling, and hedging on some stocks. The site also provides stock charts, quotes, and research capabilities. It has 24-hour usage hours with customer support.

We can buy and sell stocks traded nationally and internationally. STOCK-TRACK trades stocks selling at prices greater than five dollars on the NYSE, NASDAQ, and AMEX. It covers various international markets such as London, Paris, and Tokyo. Currency exchange rates will be accounted for on international stocks. Stock, future, and options trades will be delayed at least fifteen minutes. All other items will be processed at end of day prices. Interest earned on all unused cash will be at a rate of three percent.

All trades stop at 4pm. Any trades placed after this will be processed the next business day.

We looked into the Virtual Stock Exchange and Stocks Quest along with STOCK-TRAK. We decided not to use Virtual Stock Exchange because it does not offer the ability to purchase foreign stocks and does not account for dividends. Foreign stocks have become an important portfolio element for investors these days and are a beneficial option for us to use. STOCK-TRAK accounts for dividends received. We decided not to choose Stocks Quest because it does not account for any dividends as well. STOCK-TRAK was chosen because it is far superior to these two other options. It offers many more options with bonds, mutual funds, and option trading. Another big selling factor was it allows us to purchase a second buy-and-hold account to test a different type of trading. With STOCK-TRAK we will have two accounts, one for more aggressive trading and one for buy-and-hold. Each week STOCK-TRAK will send us a weekly account summary.

## **Chapter 3 – Methodology**

Throughout the course of this project, we study the stock market from an investor's perspective. The most accurate way to do this is by simulating actual stock market trading. Through the use of the STOCK-TRAK program, we model actual involvement in the stock market, and monitor our progress. We are each provided with two \$100,000 accounts, with transaction fees of \$25. We select stocks for our portfolios by using various financial ratios and other information about the companies. We follow different strategies for each of our two accounts. One account is a more active account, and the second follows a 'buy-and-hold' strategy. We record data and news regarding our portfolios to use as a basis for our decision making process. Along with the data from our personal accounts, we also record the closing numbers from the DJIA and NASDAQ indices to benchmark our portfolio performance against. From this, we reflect on our decisions and transactions and use data and other information to justify our actions.

Section 3.1 discusses the overall functionality of the STOCK-TRAK simulation software we use. Next, we discuss the method we use to select stocks and what we compare them against to measure performance in section 3.2. The subsequent portion, section 3.3, examines the strategies we use and how we apply them to each of our portfolios. Section 3.4 takes a look at alternate methods of learning we use, including team based learning and conducting an interview. Finally, section 3.5 is a basic explanation of the data recording process we use.

### 3.1 Simulation Software

For this project we are using the STOCK-TRAK simulation website. The program offers many options to us beyond just the stock market, but we are focusing

mainly on stocks. STOCK-TRAK can be used to trade stocks, bonds, mutual funds, and options from the markets of many different countries. We use STOCK-TRAK to trade mostly stocks, but also some bonds, mutual funds, and international stocks.

How it works

When first visiting the STOCK-TRAK website, www.stocktrak.com, we access our portfolios by following the “Login” link at the top of the page and entering our information. After this occurs, we navigate the website using the links shown in Figure 8.

Trade A Stock	Trade An Option	Trade Other Securities	Current Day Trades
Limit/Stop Orders History	Account Detail	My Acct Summary	My Ranking

**Figure 3.1: STOCK-TRAK Investment Options**  
Source: www.stocktrak.com

Figure 3.1 shows the different investment and data options provided by the STOCK-TRAK program. By clicking on “Trade A Stock”, “Trade An Option”, or “Trade Other Securities”, we then enter the transaction type and amount of whatever entity in which we are investing. The remaining links bring us to a page that shows various data pertaining to our portfolios. The links displayed in Figure 8 show all the main functions of the STOCK-TRAK simulation website.

For the most part, we are using the stock market portion of this program. When we click on the “Trade A Stock” link, we are taken to a screen that presents us with a variety of options, shown in Figure 3.2.

<p>What type of trade will this be?</p> <p>Buy to open or increase a long position</p> <p>Sell to close or reduce a long position</p> <p>Sell short</p> <p>Cover a short position</p>	<p>Number of shares (example: 500)</p> <input type="text"/>	<p>Ticker Symbol (all capital letters):</p> <input type="text"/>
<input type="button" value="Send your Trade Request"/>		<input type="button" value="Reset and clear form"/>

**Figure 3.2: Stock Trading Screen**  
Source: www.stocktrak.com

As Figure 3.2 shows, we are presented with four options: buy to open or increase a long position, sell to close or reduce a long position, sell short, or cover a short position. A long position is the purchase of a stock in anticipation of an increase in stock price. Once the stock has reached a level we feel is satisfactory, we sell to close the position and no longer own any shares of that company. Selling short is selling a stock which you do not own, and then buying back the shares at what is hopefully a lower price, which is known as covering a short position. After a trade is requested and confirmed, we see the complete transaction details by clicking the “Current Day Trades” link. When the site updates our portfolios at the end of the day, the transaction information can then be seen by following the “Account Detail” link, as shown in Figure 3.3.

Date	Transaction	Shares	Ticker	Price	Commission	Amount
----	----	----	----	----	Beginning Cash	100,000.00
10/31/05	BO	450.00	JBLU	18.42	25.00	-8,314.00
10/31/05	BO	300.00	TXN	28.36	25.00	-8,533.00
11/03/05	BO	300.00	EBAY	41.21	25.00	-12,388.00
11/03/05	SC	-450.00	JBLU	18.44	25.00	8,273.00
11/08/05	BO	250.00	XOM-DIV	0.29	0.00	72.50
11/10/05	BO	250.00	DD-DIV	0.37	0.00	92.50
<b>----- Market Value of Open Positions -----</b>						
250.00	<a href="#">DD</a>	42.35		0		10,587.50
300.00	<a href="#">EBAY</a>	43.05		0		12,915.00
150.00	<a href="#">JCP</a>	52.21		0		7,831.50
450.00	<a href="#">MSFT</a>	27.50		0		12,375.00
100.00	<a href="#">TXN</a>	31.47		0		3,147.00
400.00	<a href="#">VZ</a>	30.82		0		12,328.00
100.00	<a href="#">WFMI</a>	144.52		0		14,452.00
250.00	<a href="#">XOM</a>	56.43		0		14,107.50
<b>Plus Market Value of Long Positions</b>						<b>87,743.50</b>
<b>Accrued Interest Receivable on Bonds</b>						<b>0.00</b>
<b>Less Market Value of Short Positions</b>						<b>0.00</b>
<b>Equals Portfolio Value</b>						<b>USD 102,413.22</b>
<b>(Margin Requirement)</b>						<b>USD 0.00</b>
<b>(Available Buying Power)</b>						<b>USD 117,082.94</b>

**Figure 3.3: Account Detail Page**  
Source: www.stocktrak.com

As displayed in Figure 3.3, the “Account Detail” page shows all the transactions that have taken place for the selected portfolio, including purchases, sales, and dividends.

Additionally, this page shows the overall value of the portfolio, by displaying the amount of each share owned, the closing price for the day, and the total value of the open position. The convenient interface allows us to easily keep track of the transactions we have made to date and the overall value of our portfolio.

#### How STOCK-TRAK is beneficial to our project

Because of the features of this program and its ability to comprehensively record data about multiple types of investments, STOCK-TRAK is suited very well for our project's needs. STOCK-TRAK records all activity in each of our accounts, allowing us to clearly see our account activity to date. From this we compare our results with the overall market and gauge our performance as investors. We also plainly see how much of our portfolio we have invested in different stocks, and our net change in cash from each transaction. By being able to see our total investment activity, we reflect upon mistakes we have made and successes we have had.

Another distinct advantage of the STOCK-TRAK program is that we participate in the stock market the same way as any investor, but without the potential rewards or consequences of investing personal funds. This allows us to try different strategies without the fear of monetary loss to otherwise influence our decisions. Without these financial limitations, we learn more about what strategies are more effective, which ratios are better indicators, and other tendencies of the stock market.

Moreover, we are not limited in our types of investments. While our project concerns mostly the stock market, STOCK-TRAK provides us with the ability to invest in a variety of different financial instruments and global markets, similarly to any investments a participant in any kind of investing would make. We do invest in mutual

funds in our buy-and-hold portfolio, to give a slightly more accurate depiction of a more cautious investor's strategy.

### 3.2 Research Criteria for Stock Selection

In the process of selecting stocks, we are using a wide range of selection criteria. We gather our information from a variety of resources. As we move through the process the research becomes more specific. We start and continue the research process with an overall look of the economy. We also perform industry evaluations. We are looking to select stocks from different strong industries. In the evaluation of companies we are looking at news, operations, earnings, and financial ratios. We use this information to pick and continually evaluate companies.

#### Overview of Resources Used

For the stock simulation, we utilize a variety of financial sources to gain insights and information about stocks. We use Yahoo Finance, the Wall Street Journal, CNN Money, and the New York Times. From these resources, we view press releases, charts, company facts, and financial ratios and statements. We use these resources to gain substantial knowledge to guide us in choosing our stocks. Besides these sources, we use our own inclinations and knowledge about businesses and company's strengths gained through our own experience and interaction with companies as customers.

#### Overall Outlook of the Market

Before and as we work through the simulation we continually research and keep an eye on current economic conditions. We want to discover the current market performance and outlook for our future trading period. This information is important and



has a primary effect on our portfolios. Market performance is largely related to consumer confidence and the outlook of the market.

In the current period, the dismal outlook on the economy from increases in oil prices, rising inflation, and the hurricanes is changing slightly. According to the Federal Reserve Chairman Alan Greenspan, “the trio of hurricanes -- Katrina, Rita and Wilma -- is likely to "exert a drag" on employment and production in the short term and may aggravate inflation pressures, but the economic fundamentals remain firm, and the U.S. economy appears to retain important forward momentum” (Associate Press, 2005, NYT). With this inflation concern, the central bank has increased the federal funds rate from 3.75 percent to 4 percent.<sup>7</sup> The Fed indicates that it will keep raising this rate into the future. Greenspan indicates this is of high concern to the Fed, “the Fed is keeping a close eye on high energy prices to make sure they don't spark broader inflation” (Associate Press, 2005, NYT).

The outlook for our trading period appears to be positive. There seems to be growing optimism about the holiday shopping season. The decrease in energy prices is bringing this optimism. With the drop in oil price, consumers will be able to spend money on other things. “Crude is now down nearly 15% since topping \$70 after Hurricane Katrina struck in late August” (Patterson, 2005, WSJ). Gains from profits could be limited in retail stores however. Retailers are using heavier discounts to draw shoppers into their stores and this could produce tighter profit margins. “Same-store sales could increase this year, says Michael Niemira, chief economist of the International Council of Shopping Centers, but any gain will come along with tighter profit margins as

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<sup>7</sup> The federal funds rate is the payment banks pay for overnight borrowing from one another to meet reserve requirements.

retailers slash prices, offer steep discounts and launch pricey ad campaigns to lure shoppers” (Patterson, 2005, WSJ). Many retailers in October reported that their sales have improved. Ken Perkins, president of Retail Metrics LLC, a research firm reports, “73 percent of the 53 retailers he tracks beat expectations; 25 missed expectations; and two retailers had results that matched estimates” (Associate Press, 2005, NYT). He reports, "Consumers are hanging in there, despite facing significant pressure on their discretionary income from higher energy prices” (Associate Press, 2005, NYT).

### Benchmark Indices

When evaluating the stock market we use the DJIA and the NASDAQ Composite indices to obtain a performance view of how the market is doing on a daily and ongoing basis. We use these indices because of their wide acknowledgment. These indices give us a broad look of two different pictures. The DJIA gives a picture of how the NYSE is progressing while the NASDAQ Composite gives a progress picture of the NASDAQ. They are important to us because our portfolios are made up of stocks from both of these markets. We benchmark our portfolios performances against how these indices are performing to see our successes or failures.

The Dow Jones Industrial Average has wide recognition. “The DJIA accounts for approximately 28% of the investable U.S. market, as measured by the DJ U.S. Total Market Index, as of December 31, 2004” (Dow Jones Indexes, 2005). It appears on a daily basis in most newspapers, on television, and web sites. The DJIA is the index most professionals check first to see how the market is doing. It is made up of a blue-chip, large strong company, composition. The DJIA’s 30 components are significant companies and have wide recognition of their services and products. These companies

have strong histories of successful growth. The stocks are made up of a wide range of investors. The DJIA portfolio's stocks are spread among a wide variety of industries and its goal is to give a picture to what is happening in the overall market. It is calculated on a price-weighted instead of a market-cap-weighted basis. The component weightings are therefore only affected by changes in the stock's prices, in contrast with other index's weightings that are affected by both price changes and changes in the number of shares outstanding. The averages are computed by summing the prices of the stocks in the average and then dividing by the divisor. The divisor is adjusted periodically to reflect splits in the stocks making up the average. The historical performance of the DJIA is highly correlated with the overall market.

The NASDAQ composite index is made up of all the stocks that trade on the NASDAQ stock market. This amounts to over 4,000 companies. It is market value-weighted, meaning it accounts for the total market capitalization of its companies and not just their share prices. Each company weight is proportional to its market value. The index is highly technology and internet stocks. It has become one of the leading indices in the world. The NASDAQ market tends to be made up of more risky companies than those on the NYSE. Because of this, the index is more volatile than other indices. If technology stocks suffer it is likely that the index will as well.



**Figure 3.4: Market Indices Chart: Year**

Source: <http://www.bigcharts.com>

Figure 3.4 shows the yearly activity for the DJIA and NASDAQ indices. Over the year, the DJIA has ranged from a low of 9,961.52 to a high of 11,027.15 and the NASDAQ has ranged from a low of 1,889.83 to a high of 2,219.91. The chart displays the percent gains of each index on the year. The bottom section shows the volume activity for the DJIA.



**Figure 3.5: Market Indices Chart: Present**

Source: <http://www.bigcharts.com>

Figure 3.5 shows a chart starting with the beginning of our trading period for the DJIA and the NASDAQ indices. The DJIA average is nearing its 52 week high, which is more than a four year high for the average. The NASDAQ composite has rose above its 52 week yearly high and reached a four year high. Both indices are producing positive gains for the period. The bottom section shows the volume activity for the DJIA.

### Industry Evaluation

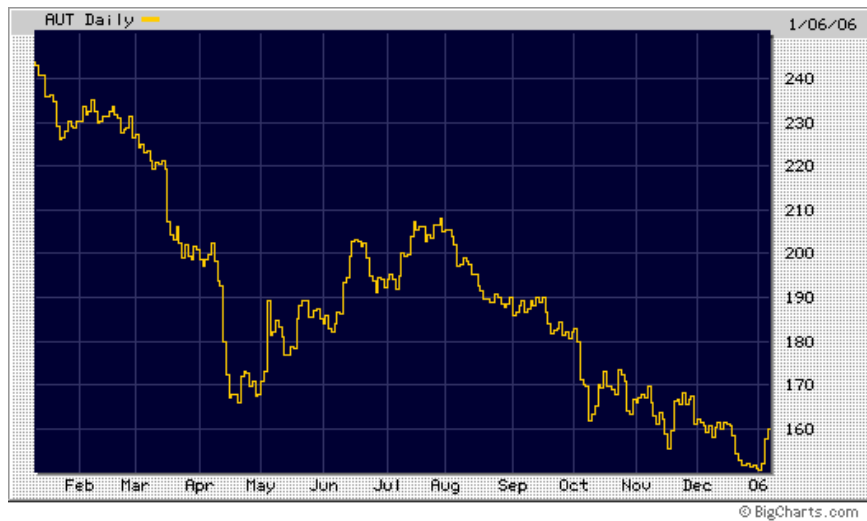
As we pick companies, we look at their current and future industry conditions. A company's performance usually has a positive relationship to the industry it is in. As we construct a portfolio we are looking for diversification. We gain this diversification by picking companies in different industries. Usually, different industries do not rise and fall in the same cycles. Thus, if one industry starts to perform badly, in a portfolio, it will be offset by another industry that is performing well. Because of this before we pick companies, we are looking at the industries in which the companies live. We construct our portfolio by picking companies from different industries. We are looking to pick industries that are performing well now and have a positive outlook for the future.

The strongest performing sector in a one year span (1/05-1/06) was the Dow Jones U.S. Coal Index. It gained 102.04 percent. The worst performing sector in a one year span (1/05-1/06) was the Dow Jones U.S. Automobile Index. It lost -34.43 percent. Information on the ten best and worst yearly industry sector performers is presented in Appendix C.



**Figure 3.6: Dow Jones U.S. Coal Index**  
 Source: <http://www.bigcharts.com>

Figure 3.6 shows a one year performance chart and upward trend for the Dow Jones U.S. Coal Index.



**Figure 3.7: Dow Jones U.S. Automobile Index**  
 Source: <http://www.bigcharts.com>

Figure 3.7 shows a one year performance chart and downward trend for the Dow Jones U.S. Automobile Index.

## Company Story

Within the industries, we are looking to pick leading companies. We find leading companies by discovering the company story. We use news releases, company websites and visits, and reports to uncover the story. We are looking for companies with strong operations, management, products, and earnings. We want companies that have not only performed well in the past, but will continue to into the future. We are looking for companies that uncover the needs of customers and present them with solutions. These companies have to have an advantage, whether it be in their products, distribution, or services. We are searching for companies that are adaptive to change and competition.

Within the stock, we are looking at institutional holdings. Too many institutional holdings are not necessarily good, but some are necessary. This is because institutions account for large amounts of demand and if they start selling it can lead to rapid price decreases. But, it takes demand to move stocks and institutions account for this. We not only look at how many institutional holdings there are, but also who these holders are. If successful institutions hold the stock, it is a signal we are on the right track. We also check insider company holdings. If insiders hold stock, it is a signal that they have confidence in the company and will watch out for its performance. We keep a watchful eye out for company stock buy backs. This has the potential to increase earnings per share and is a signal that the company has faith in its stock.

## Earnings Examination

A company with the best story is worth nothing if it can not deliver with earnings. Earnings per share drive stock prices. Because of this, we look at earnings performance of companies. Within earnings, we are concerned with quarterly, annual, and projected

numbers. For each company, we look at its current quarterly earnings compared to previous years. Previous years are considered because of seasonal factors. We are looking for growth in quarterly earnings. We also are looking for annual earning growth as well. Past performance of a company gives inclinations about future earning capabilities. But, it's not enough to look at previous performance exclusively, because future expectations drive stock prices. Because of this, we consider future earning expectations into the decision of which companies we pick.

### Financial Analysis

An important part of a company is its operations. If a company can generate a lot of sales, but has poor operations, earnings will not be great. Because of this, as investors it is important for us to take a look at operations. We want to make sure as much of sales as possible is getting turned into earnings. We get an inclination about operations from the balance sheet and financial analysis. There are three ways to evaluate financial performance. The first approach evaluates the firm's financial performance over time. The second approach compares actual ratios with that which was expected. The third approach uses ratios to compare the firm's performance with other firms in the same industry. A combination of the three approaches provides a comprehensive picture and is appropriate. Within these methods we are looking for improvements over time and strength.

When considering companies we look at their current ratio, debt ratio, return on assets, return on equity, cash per share, and price per earnings ratios. Formulas for calculating the important ratios are provided in Appendix A. The current ratio indicates a firm's short term position. It gives inclinations if current liabilities can be covered by



current assets. A number of at least one is usually desired. A higher ratio is generally strong, but excess cash is not necessarily favorable. The debt ratio looks at total debt compared to assets. As, stockholders we may want a higher debt ratio for higher returns. Creditors may want a low ratio for safety. A low debt ratio generally shows strength. Return on assets measures how assets are being used to produce profits. A high ratio implies strength and good return on assets. Return on equity measures the common stockholder's investment rate of return. A high ratio implies strength and good return on equity. Cash per share looks at the current cash position of a company. A higher cash position is generally strong, but too much cash is not good. The price per earnings ratio measures the dollar amount investors are willing to pay for one dollar of earnings. Typically, this should equal a company's future growth rate. If this ratio becomes too great a stock can become overvalued. A high price per earnings ratio indicates possible risk if it cannot be substantiated with growth. Within these ratios, we are looking for strong performance and improvements over time. It is very difficult to say if a ratio is necessarily strong or weak standing by itself. This is why it is important to use the comparison methods mentioned earlier.

### 3.3 Strategies for our Portfolios

In an attempt to create and manage successful portfolios, we apply various stock market strategies. Along with the criteria for the selection of stocks discussed in section 3.2, we also use strategies to help us decide in which companies to invest. However, we do not use one exclusive strategy for each of our portfolios, but rather combinations of multiple strategies that we consider as being effective. In addition, even though our portfolios are relatively small, we incorporate diversification as much as possible to

create more balanced and stable portfolios. Lastly, we decide when to buy and sell shares based on the multiple strategies we utilize. Through this, we construct and maintain stock market portfolios that are representative of portfolios different investors might have.

### Investing Strategies Used

For our standard, more active, portfolio, we use strategies that will benefit us in the short-term. We look to create moderate gains in this portfolio in a relatively short period of time, which is often very difficult to do. We apply multiple strategies to this portfolio, using primarily growth investing and fundamental investing. Growth investing focuses on companies that have a strong potential for substantial gains. We use growth investing to find companies that we believe will start or continue to grow at a high rate. We monitor these stocks closely, however, because they are rather risky. With fundamental investing, we focus on the financials of the company, mainly its balance sheet. We use current, debt, and equity ratios to determine if the stock is valuable with this approach. We focus on these strategies in our standard portfolio because we feel they are best suited to produce short-term earnings.

Our buy-and-hold portfolios are slightly more complicated, as we are conducting the simulation over a short period but are using long-term strategies to invest. Because of this, our results may not be indicative of the effectiveness of the strategies applied or our investments. In our buy-and-hold portfolios we again use fundamental investing and growth investing, along with value investing. We use value investing in this portfolio by selecting stocks that we believe are being traded at a lower value than what they are worth. We anticipate an increase in stock price due to the stock being undervalued at the time of purchase. However, value investing is most effective in the long term, so we do

not expect tremendous gains from the stocks chosen in this manner, but rather more of a steady growth.

### Diversification

We incorporate diversification into all of our portfolios for protection. With investing in companies from different industries, one company's loss can be recovered by another's gain. We invest in multiple markets so if one market struggles it will be compensated for by our other investments. However, with portfolios of between six and twelve stocks, it is difficult to diversify effectively. Our limited amount of funds constricts our ability to have a widely diversified investment, so in our buy-and-hold portfolios we invest in mutual funds, which are always highly diversified. While our diversification methods do not make our portfolios bulletproof, they are still a measure taken that effectively reduces the overall risk of our investments.

### Deciding when to sell

We constantly monitor our portfolios to make sure we have the best stocks available and to decide if any stocks should be sold. In our regular portfolio, we sell a stock when we feel it has reached its maximum growth potential, or when we discover another stock that is outperforming it. In using fundamental analysis, if we discover another stock that has better financial figures, we invest in it, or if a company we own shares in reports poor numbers, we sell the stock. With value investing, we sell a stock when we judge that it has reached or exceeded what it is worth, because the stock price will soon decline. In using growth investing, we sell a stock when a company's growth slows. In our buy-and-hold portfolio, we are investing with the long-term in mind, so we do not look to sell any stocks in the portfolio unless we believe it is necessary.

### 3.4 Additional Learning Resources

While we do apply many techniques and strategies we learn from literary research, there are many other ways of learning as well. We conduct an interview with money manager Gary Peloquin to gain a first-hand account of an experienced investors knowledge of the stock market. From this, we see how many of the strategies we read about are applied to standard investing situations. Also, we learn through working together as a team. In all aspects of the simulation investing process, we discuss and learn from each other to increase our overall understanding. For example, one team member may have a better understanding of one type of strategy and the other might be able to offer advice on a different strategy that he has found to be effective. We combine this knowledge with the concrete information we obtain from research to round-out the overall learning experience.

#### Learning through interview

We conduct an interview with certified public accountant and money manager Gary Peloquin to gain information in an interactive and first-hand setting. We ask Mr. Peloquin about his experiences in the stock market, what strategies he follows, and how he applies the wealth of information available to the portfolios he manages. We are able to see what has been more effective for him, and take his strategy into account with our own investing. Moreover, we get another perspective on investing different from what we have already learned through literary research.

Mr. Peloquin offered many ideas and perspectives to us that he has found to be effective. He discussed his strategy being primarily long-term, and he feels that short-term investing is far too risky to partake in. He uses multiple sources for his stock

research, including Briefing.com, Morningstar, and the Wall Street Journal, and combines all the daily information he reads into one long-term perspective on a company in which he is investing or plans to invest. He picks his resources carefully, and he makes sure his sources are independent analysts with no connection to brokerage firms that could influence their advice. He uses five investment models that balance clients' risk level and time horizon to develop the most suitable portfolio for them.

Mr. Peloquin believes in disciplined investing where his faith in the market is not wavered by periodic fluctuations. He imparts this discipline to his clients as well, and advises them not to panic when the market is down, but rather to buy more in anticipation of the market recovering. He will invest in companies that he feels have a solid financial and operational background, and looks for a 15% earnings growth over at least the past five years. When a stock no longer meets his criteria, he sells it, but will rarely sell under any other circumstances. He has experienced strong success with his long-term growth strategy, and provided us with a large amount of information regarding investing in the stock market.

### Team Learning

A major part of the learning we gain through this process is through each other. Each of us has unique attributes that contribute to the team. Throughout the stock simulation, we each learn different and similar techniques and knowledge. In our meetings, we try to fill in each other on the gaps. We try to get the most out of the simulation by constantly sharing things we know and things we learn. When one of us reads something interesting or discovers a new stock tip we share it. With both of us being novice investors, it is very helpful to have someone to turn to for guidance. In the

process of picking stocks, we share our strategies and ask advice from each other on portfolio management. We discuss each others thoughts on if a stock should be purchased or if it is time to be sold. In the trading scene, we learn from each others triumphs and falters.

### 3.5 Data Recording

As we work through the simulation, we record data to keep track of our transactions, portfolio, performances, and the decision process. Earnings are the most important item for stocks and drive their gains or losses. For the stocks we own we record their recent quarterly, annual, and projected earnings. Within earnings we are looking for continual growth and increases. We record asset, debt, and equity ratios to help us in choosing companies. We do not focus on these besides in picking a company because they do not change until financial reports are released. This will not happen in our short trading period. Before we purchase a stock we record its P/E ratio and 52 week high and low. These numbers give us something to judge if changes in our stocks prices are warranted over our trading period. If a stocks P/E ratio starts greatly rising it might be a signal to consider selling the stock.

We are constantly evaluating the stock's company stories. We look for information that shows company strength and the potential for increases in stock prices. Each day we record news releases and information that is relevant to our stocks performances. We are continually creating a story that says why we purchase a particular stock, why we continue to hold it, and why we decide to sell it. We record all information that is relevant to this decision making process.

When we purchase a stock we record its purchase price and the number of shares we bought. We also record the total money percent that the stock makes up in the portfolio. Everyday we record the closing prices for each stock in our portfolios. We are continually keeping an eye on our stock's price increases and decreases. We try to validate this information with news that we read. We record the DJIA and NASDAQ closing prices. These indices give us something to benchmark our portfolios performance against. Each week we produce graphs that show percent changes in our portfolios compared to these indices. We also record total gains and loses for the portfolios and each item in it. As the process moves we are recording insights behind these stock movements.

When we sell some portion of the portfolio we record how many shares were sold and at what price. At the end of the process we produce total performance graphs compared to the indices. We also show total gains and loses.

## **Chapter 4 – Results**

In this chapter we will present our results from the seven week trading simulation. The chapter displays charts and performance graphs documenting these results. It shows the outcomes of both of our portfolios and benchmarks them against the indices. Section 4.1 shows Gilmore's results and section 4.2 shows Podmostka's results. Both sections illustrate summaries of each portfolio and its components, weekly equity gains for each individual stock and totals, and percentage performance graphs of both of the portfolios weekly performances compared to the indices.

### 4.1 Gilmore's Results

My portfolios performed in stark contrast to each other during the seven-week trading period. My active account was the weaker performing portfolio, closing with a value of \$104,585.81 and showing a gain of 4.586%. The best performing stock in my active portfolio was Whole Foods Market, which saw gains of 12.00% during the time that it was part of my portfolio. Conversely, the stock which saw the poorest performance in this portfolio was Verizon, falling 3.80% during the trading period. While this account was outperformed by the NASDAQ Composite Index, it closed with percentage gains very close to those of the DJIA for the trading period. My portfolio that followed a buy-and-hold strategy, however, mirrored more the movements of the DJIA and closed at \$108057.16: a gain of 8.057%. The strongest stock in this portfolio was Apple Computers, which produced a gain of 24.34%. The weakest stock in my buy-and-hold account was the Analytic Short-Term Government Income Fund, which suffered a loss of 0.576%.



## Summaries of Portfolios

The following tables and graphs provide a visual synopsis of my portfolios performance during the simulation. This next table shows the percentage of portfolio, buying price, date bought, number of shares, selling price, date sold, and percent gain for each stock in my active account. The percentage of portfolio is calculated with respect to the buying price of each investment. Additionally, the stocks are listed in the order in which they were purchased.

	Active Portfolio	Industry	Symbol	Percent	Money	Buying Price	Date Bought	Shares	Selling Price	Date Sold	Gain/Loss
1	Exxon Mobile Corp.	Major Integrated Oil and Gas	XOM	10.67%	\$14,062.50	\$56.25	10/31/2005	250	\$58.06	-	3.04%
2	Microsoft Corp.	Application Software	MSFT	8.75%	\$11,529.00	\$25.62	10/31/2005	450	\$26.90	-	4.78%
3	Verizon Communications Inc.	Telecom Services - Domestic	VZ	9.60%	\$12,652.00	\$31.63	10/31/2005	400	\$30.49	-	-3.80%
4	El DuPont de Nemours & Co.	Chemicals - Major Diversified	DD	7.93%	\$10,455.00	\$41.82	10/31/2005	250	\$42.50	-	1.39%
5	JetBlue Airways Corp.	Regional Airlines	JBLU	6.29%	\$8,289.00	\$18.42	10/31/2005	450	\$18.44	11/3/2005	-0.49%
6	Texas Instruments Inc.	Semiconductor - Broad Line	TXN	6.45%	\$8,508.00	\$28.36	10/31/2005	300	\$33.07	-	11.62%
7	eBay Inc.	Internet Software & Services	EBAY	9.38%	\$12,363.00	\$41.21	11/3/2005	300	\$45.94	-	11.28%
8	JC Penney Co. Inc.	Department Stores	JCP	6.04%	\$7,957.50	\$53.05	11/3/2005	150	\$53.34	-	0.23%
9	Prudential Financial Inc.	Life Insurance	PRU	11.34%	\$14,950.00	\$74.75	11/3/2005	200	\$73.90	11/10/2005	-1.47%
10	Merck & Co. Inc.	Drug Manufacturers - Major	MRK	5.71%	\$7,532.50	\$30.13	11/3/2005	250	\$30.04	11/3/2005	-0.96%
11	Whole Foods Market Inc.	Grocery Stores	WFMI	10.38%	\$13,683.00	\$136.83	11/10/2005	100	\$153.50	-	12.00%
12	Intuitive Surgical Inc.	Medical Appliances & Equipment	ISRG	7.46%	\$9,840.00	\$98.40	11/10/2005	100	\$98.50	-	-0.41%

**Table 4.1: Active Portfolio Overall Summary**

As shown in Table 4.1, the top performers in my active portfolio were Whole Foods Market, eBay and Texas Instruments. Also, this portfolio is divided for the most part evenly among each component, so that one stock does not have too much influence on the performance of the portfolio as a whole.

Active Portfolio	XOM	MSFT	VZ	DD	JBLU	TXN	EBAY	JCP	PRU	MRK	WFMI	ISRG	Total Equity Gain
Week One	\$385.25	\$443.00	-\$317.00	\$347.50	-\$41.00	\$752.00	\$86.00	\$16.00	-\$189.00	-\$72.00	-	-	\$1,410.75
Week Two	\$67.50	\$747.00	-\$92.00	-\$170.00	-	\$819.00	\$804.00	\$250.50	-\$220.00	-	\$455.00	-\$40.00	\$2,621.00
Week Three	\$500.00	\$1,102.50	\$28.00	-\$157.50	-	\$895.00	\$1,038.00	\$198.00	-	-	\$776.00	-	\$4,380.00
Week Four	\$965.00	\$963.00	\$140.00	-\$332.50	-	\$923.00	\$1,650.00	\$157.50	-	-	\$1,112.00	-	\$5,578.00
Week Five	\$705.00	\$1,075.50	\$96.00	-\$335.00	-	\$1,118.00	\$1,194.00	\$114.00	-	-	\$1,570.00	-	\$5,537.50
Week Six	\$562.50	\$940.50	-\$220.00	-\$260.00	-	\$1,044.00	\$663.00	\$187.50	-	-	\$1,721.00	-	\$4,638.50
Week Seven	\$452.50	\$576.00	-\$456.00	-\$170.00	-	\$1,014.00	\$1,419.00	\$43.50	-	-	\$1,667.00	-	\$4,546.00

**Table 4.2: Weekly Active Portfolio Equity Report**

Table 4.2 offers a slightly different perspective on the portfolio's performance by providing a weekly breakdown of each stock. This chart clearly displays which stocks peaked during what week, and gives an overall idea of the direction each stock went in throughout the trading period. Each reported value is what the stock was worth in my portfolio at the end of each week, and all values are cumulative. Furthermore, this table pertains to each of the seven weeks of the trading period, from October 31 to December 16, 2005.

	Buy and Hold Portfolio	Industry	Symbol	Percent	Money	Buying Price	Date Bought	Shares	Selling Price	Date Sold	Gain/Loss
1	Google Inc.	Internet Information Providers	GOOG	19.55%	\$18,530.50	\$370.61	10/31/2005	50	\$430.15	-	15.93%
2	Entercom Communications Corp.	Broadcasting - Radio	ETM	6.13%	\$5,806.00	\$29.03	10/31/2005	200	\$29.48	-	1.12%
3	Toyota Motor Corp.	Auto Manufacturers - Major	TM	13.73%	\$13,015.80	\$92.97	10/31/2005	140	\$98.28	-	5.52%
4	Apple Computer Inc.	Personal Computers	AAPL	12.64%	\$11,984.70	\$57.07	10/31/2005	210	\$71.11	-	24.39%
5	Starbucks Corp.	Specialty Eateries	SBUX	11.63%	\$11,021.40	\$28.26	10/31/2005	390	\$31.19	-	10.14%
6	Time Warner Inc.	Entertainment - Diversified	TWX	5.69%	\$5,391.00	\$17.97	10/31/2005	300	\$18.00	-	-0.30%
7	Coca-Cola Bottling Co. Consolidated	Beverages - Soft Drinks	COKE	11.64%	\$11,037.60	\$45.99	10/31/2005	240	\$45.74	-	-0.77%
8	T.Rowe Price Emerging European & Mediterranean Fund	Mutual Fund	TREMX	8.44%	\$7,999.99	\$23.84	11/3/2005	335.57	\$24.73	-	3.42%
9	Analytic Short-Term Government Income Fund	Mutual Fund	ANSTX	10.55%	\$9,999.95	\$10.41	11/3/2005	960.61	\$10.35	-	-0.83%

**Table 4.3: Buy-and-hold Portfolio Overall Summary**

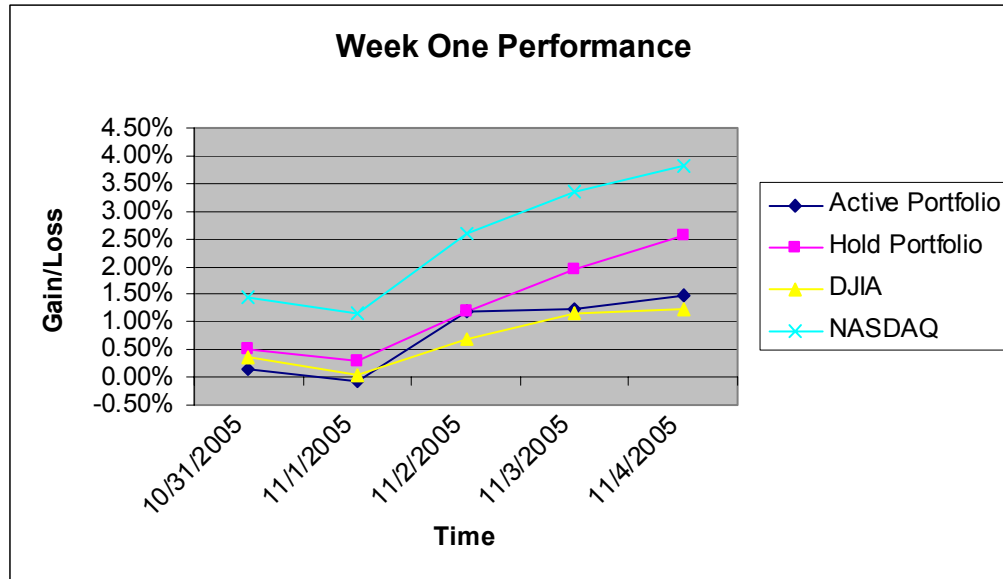
This table has the same structure as Table 4.1, but it instead applies to the buy-and-hold account. From this, it is apparent that the breakup of stocks was not as balanced in this portfolio, and one can easily see that much of the portfolio's success can be attributed to a few very strong stocks, such as Apple and Google.

Buy and Hold Portfolio	GOOG	ETM	TM	AAPL	SBUX	TWX	COKE	TREMX	ANSTX	Total Equity Gain
Week One	\$991.00	\$334.00	-\$100.80	\$856.80	\$819.00	-\$108.00	-\$84.00	-\$23.48	-\$28.77	\$2,655.75
Week Two	\$989.50	\$454.00	-\$273.00	\$938.70	\$737.10	-\$45.00	-\$129.60	-\$40.26	-\$19.17	\$2,612.27
Week Three	\$1,480.00	\$536.00	\$796.60	\$1,572.90	\$1,060.80	\$18.00	-\$612.00	\$83.90	-\$38.38	\$4,897.82
Week Four	\$2,775.50	\$738.00	\$743.40	\$2,576.70	\$1,341.60	\$108.00	\$96.00	\$221.48	-\$19.17	\$8,581.51
Week Five	\$2,354.50	\$650.00	\$679.00	\$3,267.60	\$1,431.30	\$90.00	\$451.20	\$412.76	\$0.05	\$9,336.41
Week Six	\$1,929.50	\$194.00	\$557.20	\$3,624.60	\$1,111.50	-\$93.00	\$84.00	\$275.17	\$0.05	\$7,683.02
Week Seven	\$2,977.00	\$90.00	\$743.40	\$2,948.40	\$1,142.70	\$9.00	-\$60.00	\$298.66	-\$57.59	\$8,091.57

**Table 4.4: Weekly Buy-and-hold Portfolio Equity Report**

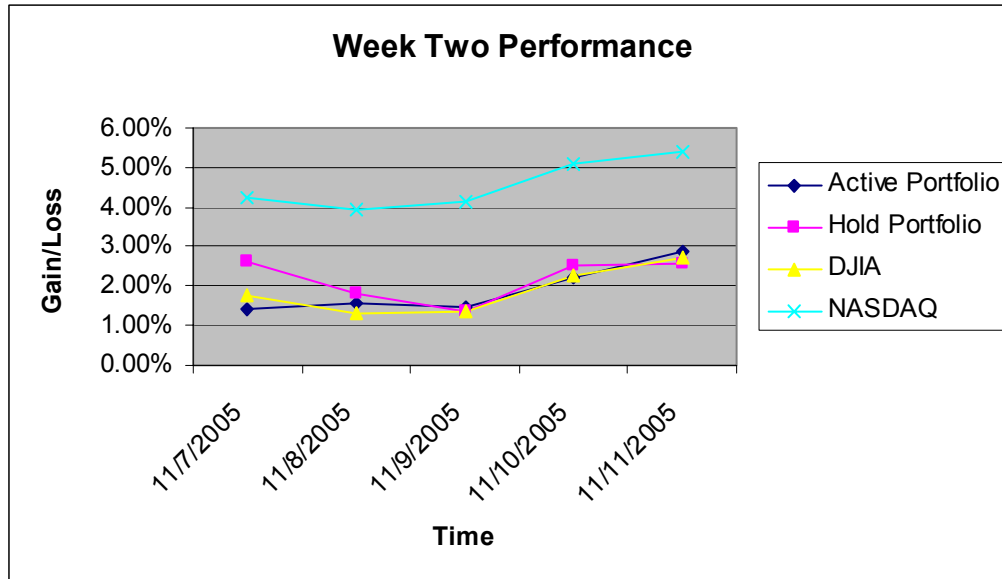
The weekly equity report for the buy-and-hold account, as shown in Table 4.4, reveals that almost every stock in the portfolio performed exceptionally well during at least one point of the simulation despite the final outcome. However, I did not choose to capitalize on the short-term success of any stock or mutual fund due to the long-term nature of the portfolio.

## Weekly Portfolio and Index Performance



**Figure 4.1: Week One Portfolio Performance**

Figure 4.1 gives a daily breakdown of each portfolio I managed compared against two prominent indices, the DJIA and the NASDAQ Composite Index. While both portfolios generally moved in the same direction of the two averages, the buy-and-hold portfolio almost mirrors the gains shown by the NASDAQ Composite Index.



**Figure 4.2: Week Two Portfolio Performance**

The performance of my portfolios in week two was slightly more volatile with regards to the market activity as measured by the indices. Particularly, my buy-and-hold account dipped significantly while the market declined only slightly on Tuesday.

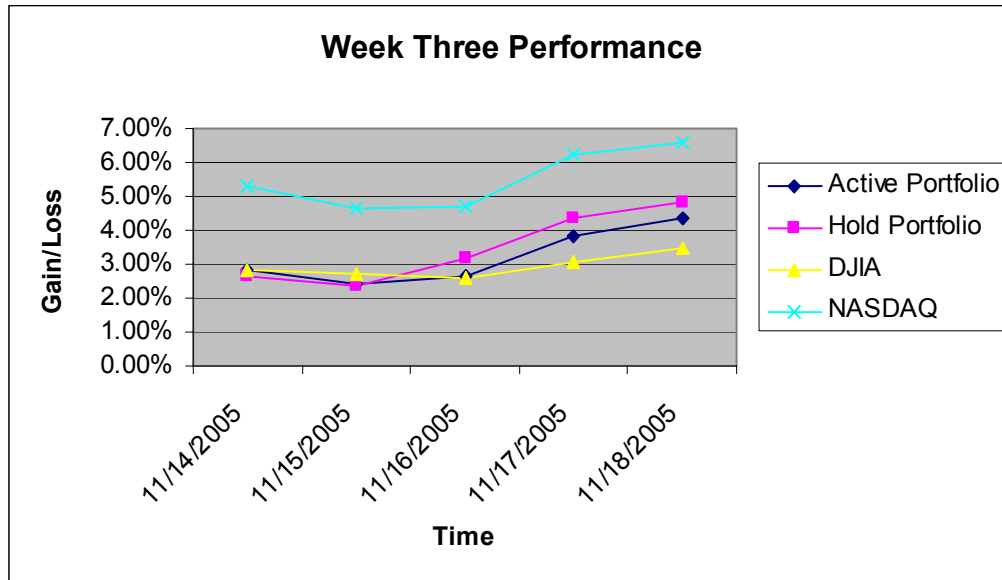
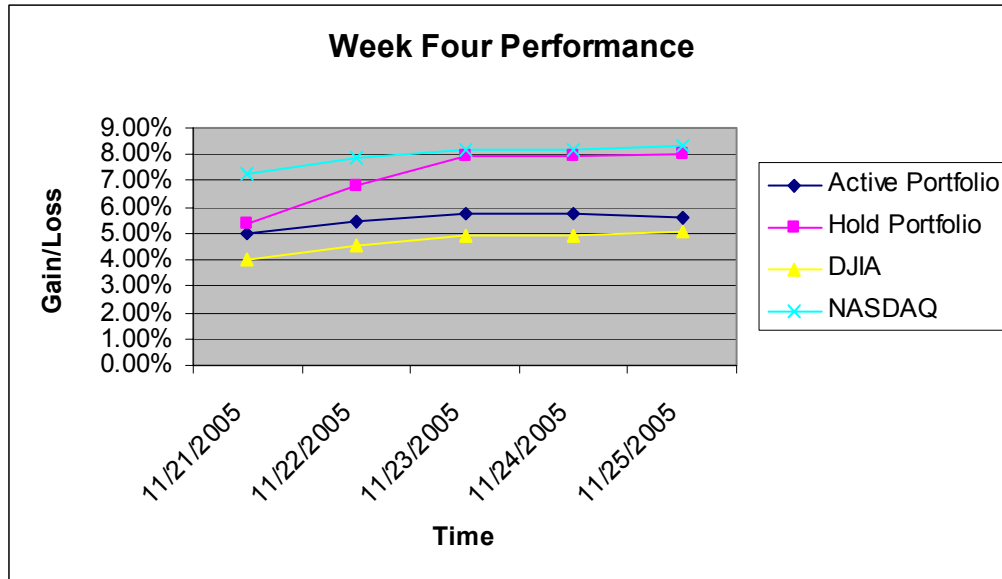


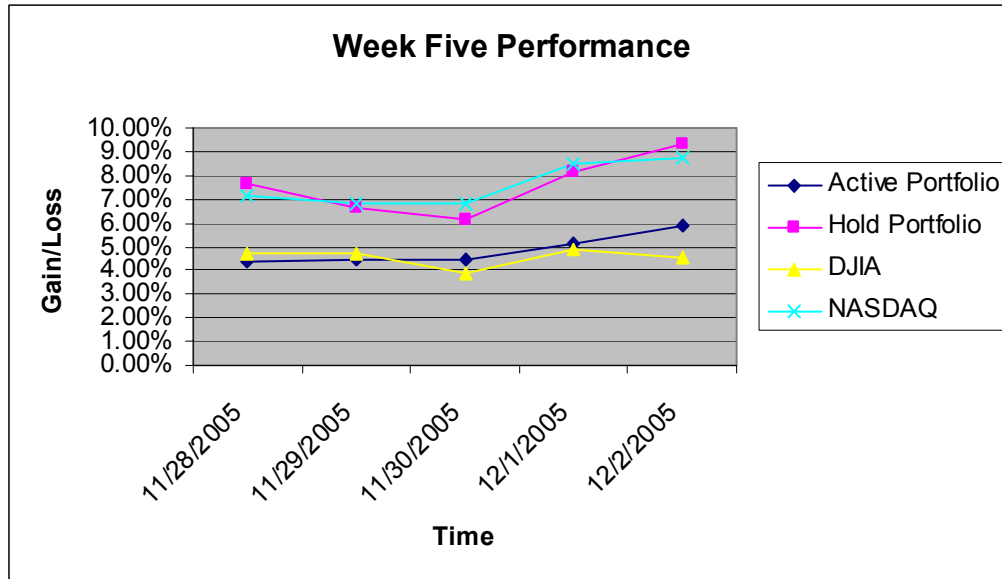
Figure 4.3: Week Three Portfolio Performance

Again, my buy-and-hold portfolio showed moderate volatility when compared to the market activity, as shown in Figure 4.3. However, this time it was in the opposite direction, as both my portfolios recognized significant gains and both outperformed the DJIA.



**Figure 4.4: Week Four Portfolio Performance**

Figure 4.4 demonstrates that during a week where the market was noticeably flat, my buy-and-hold portfolio performed very well. At the same time, my active account increased and decreased very slightly along with the DJIA.



**Figure 4.5: Week Five Portfolio Performance**

During week five both accounts performed well, most notably on Friday, when the DJIA declined and the NASDAQ rose only slightly, both portfolios showed an increase of about 1%. Again, it appears that the buy-and-hold account is moving closely with the NASDAQ and the active account is changing with the DJIA.



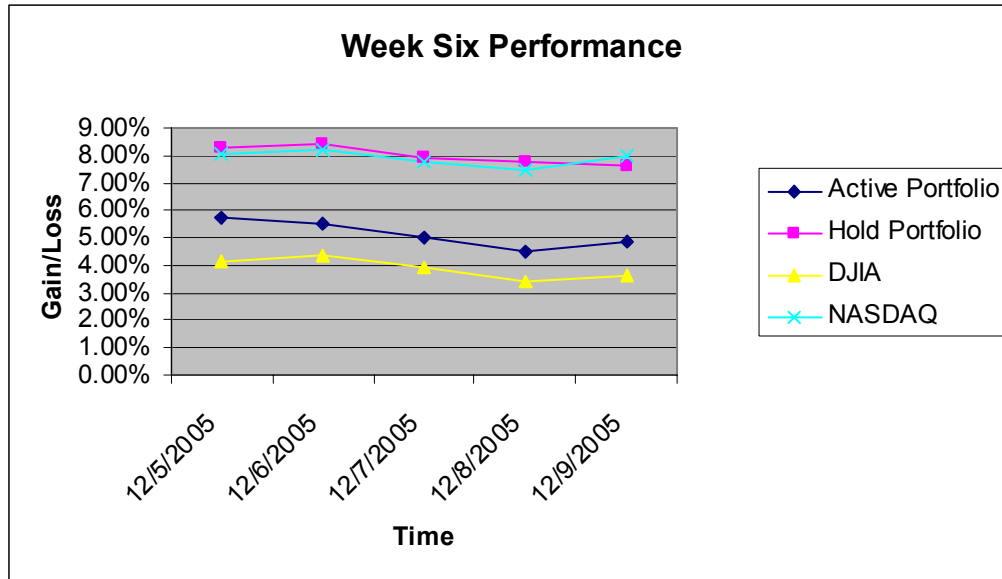


Figure 4.6: Week Six Portfolio Performance

By this time in the simulation, but accounts seem to be acting very stable and change only with the market. While both portfolios did decrease in value during this period, there have not been any drastic increases or declines, which indicate that the portfolios are moderately diversified and are not overly influenced by the performance of a select few stocks.

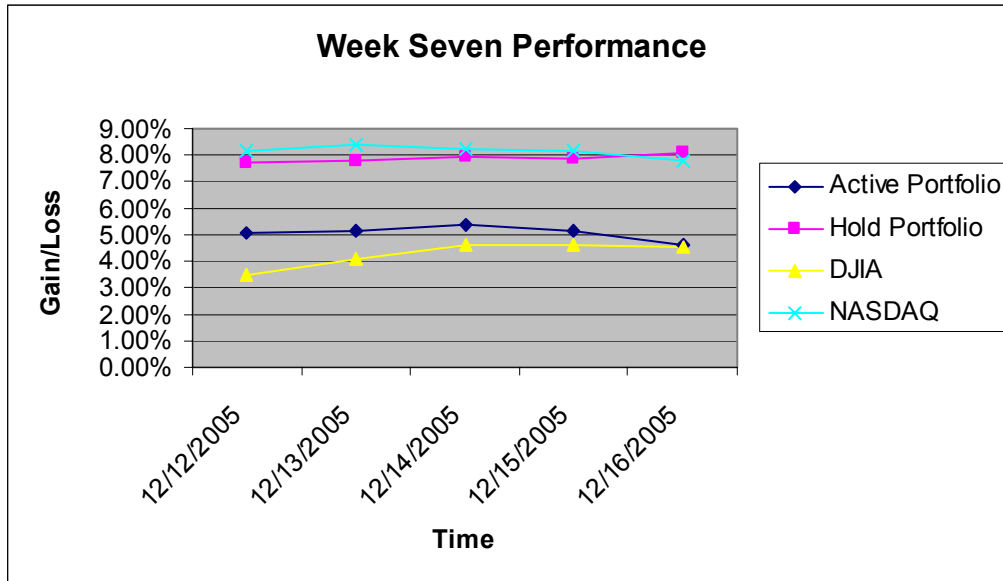


Figure 4.7: Week Seven Portfolio Performance

As Figure 4.7 shows, my active account experiences a disappointing close to the trading period; declining steadily over the last two days. While my buy-and-hold account does make overall gains during the week, it does not come close to previous highs during the trading period and has been right around 8% gains for the past two weeks.

At the end of the trading period, the buy-and-hold account powerfully outperformed the active account. However, I believe that this was due to a few stocks that performed exceptionally well during the trading period and carried the portfolio's value with them. Moreover, I should have been more involved with the active account when total gains began to flatten out around the beginning of week seven. Not trading during the final week of the simulation may have inhibited the active account recognizing more gains than it did.

#### 4.2 Podmostka's Results

Over the seven week trading period my two portfolios finished with very different results. My active portfolio performed very strongly and outperformed both the NASDAQ and DJIA indices. It finished the trading period at \$108,679.30 with an approximate gain of 8.68%. Every stock in the portfolio finished with a positive gain. Children's Place finished as the top performing stock with a percent gain of 19.52%. Best Buy finished as the worst performing stock with a percent gain of only 0.65%. My buy-and-hold portfolio did not perform well over the trading period, but did finish with a positive gain. It underperformed against both the DJIA and the NASDAQ indices. It finished the trading period at \$102,358.10 with an approximate gain of 2.36%. Stocks in the portfolio finished with both positive and negative gains. Apple Computers finished as the best performing stock with a percent gain of 22.96%. American Eagle Outfitters finished as the worst performing stock with a percent loss of -10.68%.

The following charts and graphs show summaries of each portfolio and its components, weekly equity gains for each individual stock and totals, and percentage

performance graphs of both of the portfolios weekly performances compared to the indices.

### Summaries of Portfolios

	Active Portfolio	Industry	Symbol	Percent	Money	Buying Price	Date Bought	Shares	Selling Price	Date Sold	Gain/Loss
1	Best Buy Co. Inc.	DJ Specialty Retailers	BBY	17.87%	\$17,868.00	\$44.67	10/31/2005	400	\$44.96	-	0.65%
2	Cheesecake Factory Inc.	DJ Restaurants and Bars	CAKE	17.34%	\$17,335.00	\$34.67	10/31/2005	500	\$38.30	-	10.47%
3	Children's Place Retail Store	DJ Apparel Retailers	PLCE	12.91%	\$12,909.00	\$43.03	10/31/2005	300	\$51.43	-	19.52%
4	CVS Corp.	DJ Drug Retailers	CVS	10.69%	\$10,692.00	\$26.73	11/21/2005	400	\$28.26	-	5.72%
5	Expedia Inc.	DJ Consumer Services	EXPE	4.56%	\$4,560.00	\$22.80	11/21/2005	200	\$26.10	-	14.47%
6	Google Inc.	DJ Internet	GOOG	14.95%	\$14,948.80	\$373.72	10/31/2005	40	\$397.25	11/14/2005	6.30%
7	Great Wolf Resorts Inc.	DJ Lodging	WOLF	2.63%	\$2,631.00	\$8.77	10/31/2005	300	\$10.19	-	16.19%
8	Microsoft Corp.	DJ Software	MSFT	10.29%	\$10,292.00	\$25.73	10/31/2005	400	\$26.90	-	4.55%
9	Wachovia Corporation	DJ Banks	WB	10.14%	\$10,142.00	\$50.71	10/31/2005	200	\$53.90	-	6.29%
10	XM Satellite Radio Holdings	DJ Broadcasting and Entertainment	XMSR	8.67%	\$8,667.00	\$28.89	10/31/2005	300	\$29.64	-	2.60%
11	Fidelity Pacific Basin	Mutual Fund	FPBFX	4.50%	\$4,500.00	\$22.66	11/1/2005	198.58	\$24.69	-	8.96%

**Table 4.5: Active Portfolio Overall Summary**

Table 4.5 displays a summary of the active portfolio. It shows which stocks the portfolio contained, their industry and symbol, the total percent and dollar amount of the portfolio they made up, their buying price and date which bought, number of shares owned, their selling price and date sold, and each stocks total percent gain or loss. A dash in a cell indicates that the item was held through the total trading period. The percentage of portfolio and money amount is calculated with respect to the buying price of each investment.

Active Portfolio	BBY	CAKE	CVS	EXPE	GOOG	MSFT	PLCE	WB	WOLF	XMSR	FPBFX	Total Equity Gain
Week One	\$1,564.00	\$665.00	-	-	\$668.40	\$372.00	\$1,326.00	\$0.00	\$165.00	\$303.00	\$45.67	\$5,109.07
Week Two	\$948.00	\$280.00	-	-	\$667.20	\$620.00	\$1,950.00	\$490.00	\$138.00	-\$120.00	\$111.20	\$5,084.40
Week Three	\$496.00	\$55.00	-	-	\$941.20	\$936.00	\$1,776.00	\$426.00	\$36.00	\$558.00	\$188.65	\$5,412.85
Week Four	\$2,384.00	\$410.00	\$492.00	\$68.00	-	\$812.00	\$1,791.00	\$874.00	\$321.00	\$438.00	\$222.41	\$8,753.61
Week Five	\$1,672.00	\$1,190.00	\$220.00	\$420.00	-	\$912.00	\$2,460.00	\$652.00	\$501.00	\$201.00	\$339.57	\$9,508.77
Week Six	\$2,196.00	\$1,380.00	\$472.00	\$420.00	-	\$792.00	\$2,424.00	\$516.00	\$456.00	\$45.00	\$307.80	\$9,950.00
Week Seven	\$116.00	\$1,815.00	\$612.00	\$660.00	-	\$468.00	\$2,520.00	\$740.00	\$426.00	\$225.00	\$403.12	\$8,926.32

**Table 4.6: Weekly Active Portfolio Equity Report**

Table 4.6 shows each individual stock's weekly gain or loss from that week to the start of the simulation from October 31 to December 16, 2005. Total weekly equity gain accumulates the total equity gain to date. A dash in a cell implies that the particular stock was not owned in that week.

	Buy and Hold	Industry	Symbol	Percent	Money	Buying Price	Date Bought	Shares	Selling Price	Date Sold	Gain/Loss
1	American Eagle Outfitter	DJ Apparel Retailers	AEOS	11.85%	\$11,845.00	\$23.69	10/31/2005	500	\$21.16	-	-10.68%
2	American Express Co.	DJ Consumer Finance	AXP	14.99%	\$14,988.00	\$49.96	10/31/2005	300	\$51.93	-	3.94%
3	Apple Computer Inc.	DJ Computer Hardware	AAPL	11.57%	\$11,566.00	\$57.83	10/31/2005	200	\$71.11	-	22.96%
4	Campbell Soup Co.	DJ Food Products	CPB	8.75%	\$8,751.00	\$29.17	10/31/2005	300	\$30.31	-	3.91%
5	Famous Dave's of America	DJ Restaurants and Bars	DAVE	4.78%	\$4,780.00	\$11.95	10/31/2005	400	\$11.30	-	-5.44%
6	Motorola Incorporated	DJ Telecommunications Equipment	MOT	8.94%	\$8,940.00	\$22.35	10/31/2005	400	\$22.41	-	0.27%
7	Netflix Inc.	DJ Specialty Retailers	NFLX	7.95%	\$7,947.00	\$26.49	10/31/2005	300	\$26.30	-	-0.72%
8	Fidelity Advisor High Income Advantage Inst	Mutual Fund	FAHCX	5.00%	\$5,000.00	\$9.31	11/1/2005	537.05	\$9.44	-	1.40%
9	Fidelity Capital & Income	Mutual Fund	FAGIX	5.00%	\$5,000.00	\$8.29	11/1/2005	603.13	\$8.39	-	1.21%
10	Merrill Lynch Pacific I	Mutual Fund	MAPCX	5.00%	\$5,000.00	\$23.49	11/1/2005	212.85	\$24.65	-	4.94%
11	Vanguard Long-Term Investment-Grade Adm	Mutual Fund	VWETX	5.00%	\$5,000.00	\$9.26	11/1/2005	539.95	\$9.41	-	1.62%

**Table 4.7: Buy-and-Hold Overall Summary**

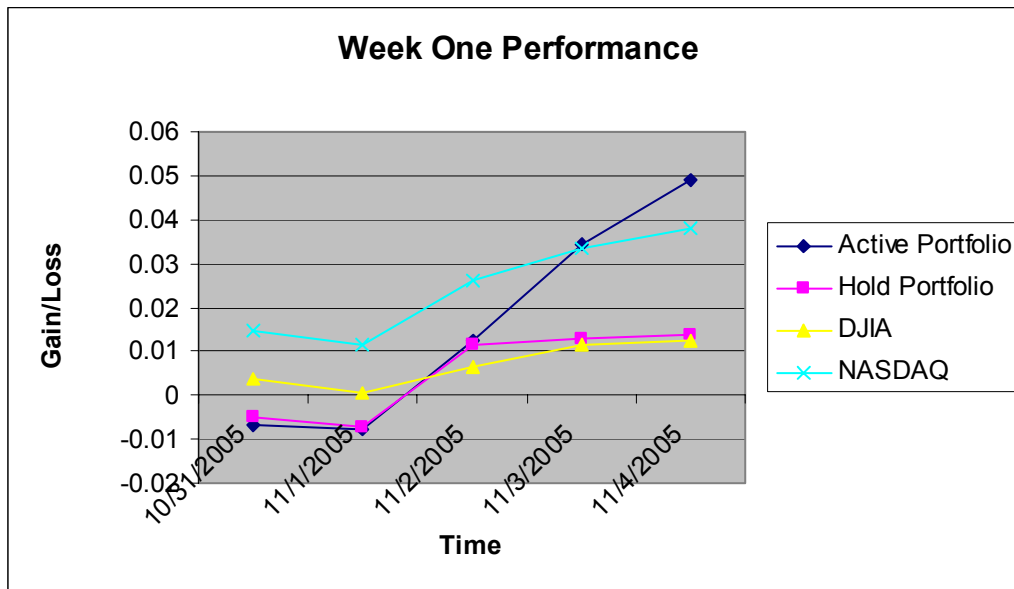
Table 4.7 displays a summary of the buy-and-hold portfolio. It shows which stocks the portfolio contained, their industry and symbol, the total percent and dollar amount of the portfolio they made up, their buying price and date which bought, number of shares owned, their selling price and date sold, and each stocks total percent gain or loss. A dash in a cell indicates that the item was held through the total trading period. The percentage of portfolio and money amount is calculated with respect to the buying price of each investment.

Buy and Hold	AAPL	AEOS	AXP	CPB	DAVE	MOT	NFLX	FAGIX	FAHCX	MAPCX	VWETX	Total Equity Gain
Week One	\$664.00	\$815.00	-\$168.00	-\$18.00	-\$380.00	\$292.00	\$330.00	\$12.06	\$0.00	\$2.13	-\$16.20	\$1,532.99
Week Two	\$742.00	\$890.00	\$147.00	\$87.00	-\$432.00	\$484.00	\$1,074.00	\$6.03	-\$5.37	-\$8.51	\$37.80	\$3,021.94
Week Three	\$1,346.00	-\$15.00	-\$15.00	\$159.00	-\$472.00	\$604.00	\$579.00	-\$12.06	-\$10.74	\$40.44	\$53.99	\$2,257.63
Week Four	\$2,302.00	\$210.00	\$798.00	\$567.00	-\$408.00	\$968.00	\$828.00	\$12.06	-\$5.37	\$51.08	\$75.59	\$5,398.37
Week Five	\$2,960.00	-\$1,345.00	\$495.00	\$384.00	-\$472.00	\$496.00	\$360.00	\$24.13	\$42.96	\$163.89	\$43.20	\$3,152.18
Week Six	\$3,300.00	-\$1,295.00	\$357.00	\$207.00	-\$360.00	\$424.00	-\$225.00	\$36.19	\$69.82	\$140.48	\$32.40	\$2,686.88
Week Seven	\$2,656.00	-\$1,265.00	\$591.00	\$342.00	-\$260.00	\$24.00	-\$57.00	\$60.31	\$69.82	\$246.91	\$80.99	\$2,489.03

**Table 4.8: Weekly Buy-and-Hold Equity Report**

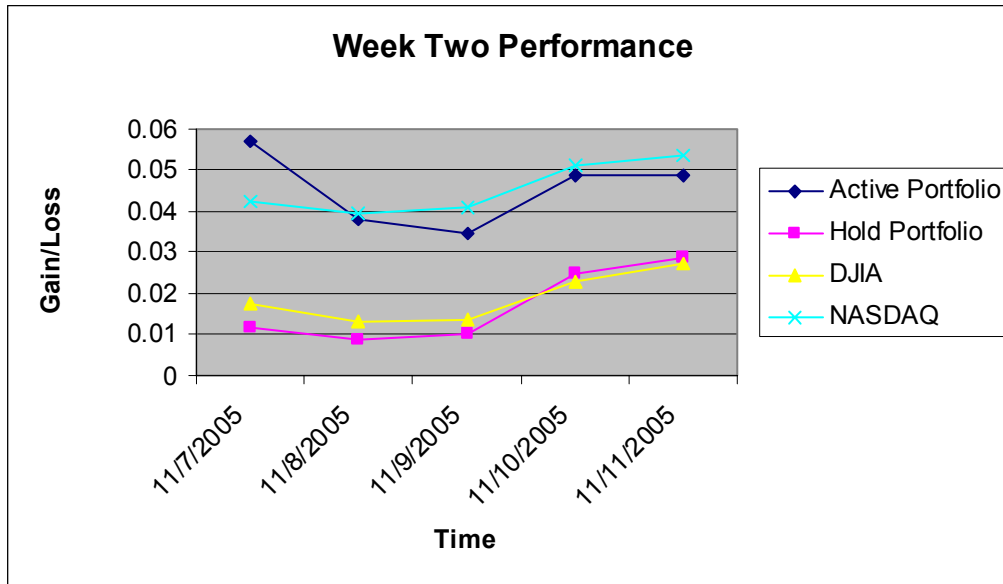
Table 4.8 shows each individual stock's weekly gain or loss from that week to the start of the simulation from October 31 to December 16, 2005. Total weekly equity gain accumulates the total equity gain to date.

## Weekly Portfolio and Index Performance



**Figure 4.8: Week One Portfolio Performance**

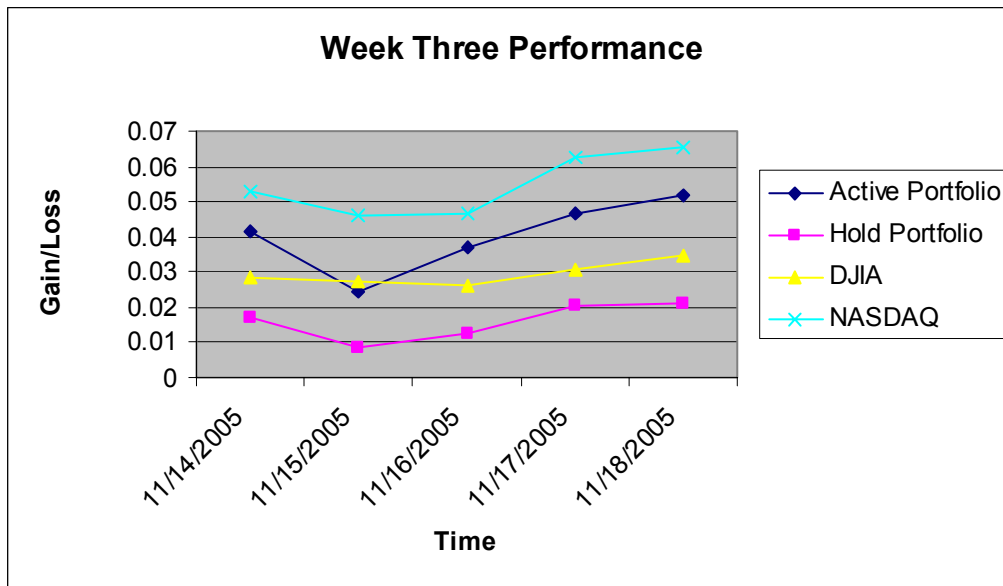
Figure 4.8 displays week one's percent changes in the active and buy-and-hold portfolios compared to the DJIA and NASDAQ indices. The active portfolio finished with a weekly gain to date of 4.91%. The buy-and-hold portfolio finished with a weekly gain to date of 1.36%. The DJIA finished with a weekly gain to date of 1.23%. The NASDAQ finished with a weekly gain to date of 3.81%.



**Figure 4.9: Week Two Portfolio Performance**

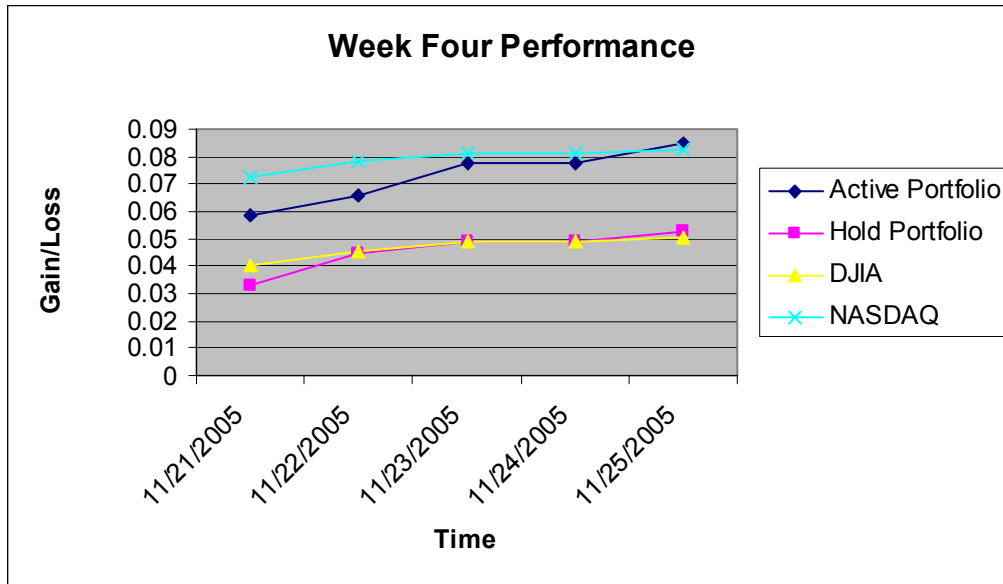
Figure 4.9 displays week two's percent changes in the active and buy-and-hold portfolios compared to the DJIA and NASDAQ indices. The active portfolio finished with a weekly gain to date of 4.88%. The buy-and-hold portfolio finished with a weekly gain to date of 2.86%. The DJIA finished with a weekly gain to date of 2.72%. The NASDAQ finished with a weekly gain to date of 5.39%.





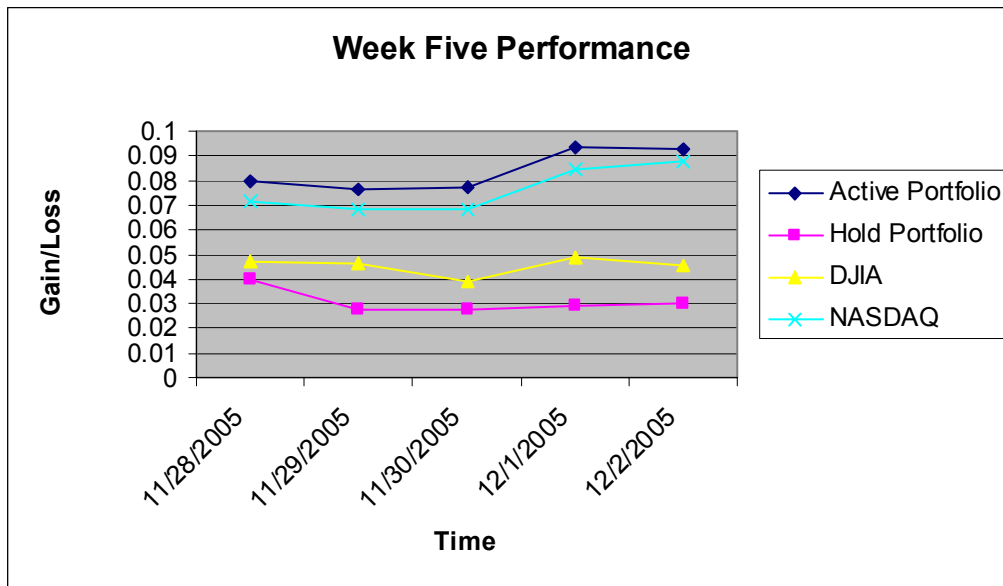
**Figure 4.10: Week Three Portfolio Performance**

Figure 4.10 displays the percent changes during week three in the active and buy-and-hold portfolios compared to the DJIA and NASDAQ indices. The active portfolio finished with a weekly gain to date of 5.19%. The buy-and-hold portfolio finished with a weekly gain to date of 2.10%. The DJIA finished with a weekly gain to date of 3.49%. The NASDAQ finished with a weekly gain to date of 6.56%.



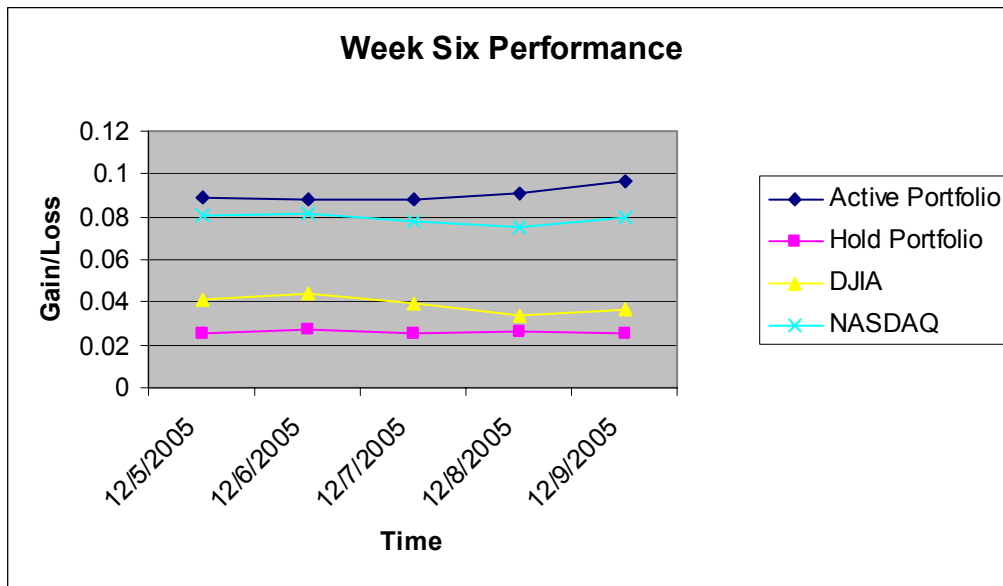
**Figure 4.11: Week Four Portfolio Performance**

Figure 4.11 displays week four's percent changes in the active and buy-and-hold portfolios compared to the DJIA and NASDAQ indices. The active portfolio finished with a weekly gain to date of 8.50%. The buy-and-hold portfolio finished with a weekly gain to date of 5.25%. The DJIA finished with a weekly gain to date of 5.08%. The NASDAQ finished with a weekly gain to date of 8.28%.



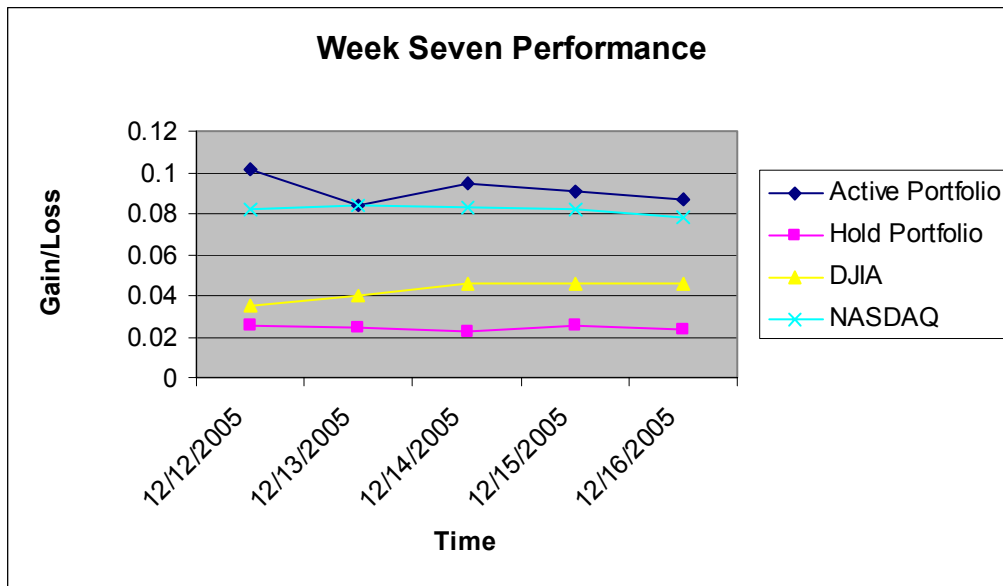
**Figure 4.12: Week Five Portfolio Performance**

Figure 4.12 displays week five's percent changes in the active and buy-and-hold portfolios compared to the DJIA and NASDAQ indices. The active portfolio finished with a weekly gain to date of 9.26%. The buy-and-hold portfolio finished with a weekly gain to date of 3.01%. The DJIA finished with a weekly gain to date of 4.56%. The NASDAQ finished with a weekly gain to date of 8.78%.



**Figure 4.13: Week Six Portfolio Performance**

Figure 4.13 displays week six's percent changes in the active and buy-and-hold portfolios compared to the DJIA and NASDAQ indices. The active portfolio finished with a weekly gain to date of 9.70%. The buy-and-hold portfolio finished with a weekly gain to date of 2.55%. The DJIA finished with a weekly gain to date of 3.61%. The NASDAQ finished with a weekly gain to date of 7.98%.



**Figure 4.14: Week Seven Portfolio Performance**

Figure 4.14 displays week seven's percent changes in the active and buy-and-hold portfolios compared to the DJIA and NASDAQ indices. The active portfolio finished with a weekly gain to date of 8.68%. The buy-and-hold portfolio finished with a weekly gain to date of 2.36%. The DJIA finished with a weekly gain to date of 4.55%. The NASDAQ finished with a weekly gain to date of 7.78%.

## **Chapter 5 – Analysis of Portfolio Formation and Results**

In Chapter 5 we take an in depth look at what happened to each of our portfolios and why. Section 5.1 provides a brief overview of the performance of some of the key indices to provide a general idea of overall market performance. The next section, section 5.2, discusses the overall performance of Gilmore's active account, including the key components of the portfolio and any buying and selling during the trading period. Section 5.3 breaks down Gilmore's active account even further, taking a look at the selection and performance of each stock in the active portfolio. Gilmore's buy-and-hold account general summary is discussed in section 5.4, and individual stock analysis occurs in section 5.5. Podmostka's active portfolio is examined in section 5.6 with the separate stock analysis taking place in section 5.7. Section 5.8 details the overall operations of Podmostka's buy-and-hold account, and section 5.9 shows individual findings for each component of that portfolio.

### 5.1 Indices Summary

The major stock market indices are a good indicator of the market's overall performance, and hence they are a good way to benchmark our portfolios' performance over the trading period. In this way, we are able to see clearly whether our portfolios had weak or strong gains over a certain period of time.

The DJIA and NASDAQ indices had strong performance during the time corresponding to our trading period. These indices are highly diversified and contain stocks from many different industries. Because of this, they will largely represent the overall look and performance of the economy. With the overall economy's performance being moderately strong the two indices also performed well. This strong performance

can be explained through the decline in oil prices, good economic growth, increased consumer confidence, and inflation worry remaining stable.

The economy in the United States was reasonably strong over the trading period. The overall look of the economy has large effects on consumer confidence in regards to their spending. If consumers are optimistic about the economy, they will purchase more goods and buy more stocks. This spending promotes gains within individual companies and their stock prices. President George Bush stated, “Our economic horizon is as bright as it's been in a long time” (Bajaj, 2005). Oil prices decreased tremendously from previous highs, thus releasing more consumer income to spend on other things. The economy posted strong growth reports. The government revised the annual pace of economic growth to 4.3% which beat expectations (Bajaj, 2005). Sales forecasts for the holiday season looked optimistic. “The National Retail association predicted a 6% rise in spending for the 2005 holiday season” (Hudson, 2005). Slowing in the rise of consumer prices increased consumer confidence further and decreased worries about inflation.

## 5.2 Gilmore’s Active Account Summary

Normally a diversified portfolio tends to move with the market. However, during a period in which the market itself was experiencing a strong upturn my active account underachieved. Although traditionally the end of the year is recognized as a good time to sell, this simulation looked to take advantage of a reduction in the price of crude oil and the coming holiday season with regards to shopping and travel. During the trading period the market posted solid gains, and this was partially reflected in my active account. While an attempt was made to diversify, it is difficult to do so with such a limited sum of money for investment. Because of this, the diversification of my active account was

limited, and it underperformed the market as a whole. Additionally, an emphasis on the stock market limited diversification through alternative forms of investment, such as bonds or futures.

### Holdings

When crafting this portfolio, I was sure to keep it as diversified among the different industries as possible. Through this, a loss in one stock can be offset by gains in another. I made an attempt to keep a balanced portfolio with no one stock overpowering the rest in terms of percentage of portfolio. I did have some smaller positions that were viewed as bigger risks such as JetBlue, JC Penney and Merck, and my investment in Texas Instruments was reduced to a smaller position in an attempt to capitalize on a short-term increase in price. The basic structure of my active account was a mixture of strong brands such as Microsoft, Exxon Mobile, Verizon and DuPont would anchor the portfolio, with stocks such as eBay, JetBlue and Texas Instruments included because of a tremendous upside. This was moderately successful in the capacity that the stronger companies produced steady returns and the riskier investments went in both directions.

### Buying/Selling

During the brief trading period, I made a variety of transactions in an attempt to increase the overall value of my portfolio. I sold JetBlue because I was beginning to grow wary that the risk I took on it would not pay off, and purchased four stocks that had recently reported good news: JC Penney, Prudential, Merck and eBay. Merck was sold the same day to minimize the loss caused by a rapid decline in price. Next I reduced my position in Texas Instruments because I felt that it had reached the peak of its growth and I had already made a considerable return on it. I used the remaining funds to purchase



Whole Foods Market and Intuitive Surgical: two innovative companies with tremendous upside that were viewed positively by the investing community. I sold Intuitive Surgical the following day; impatient with a lack of reaction to a recent upgrade in its rating.

### 5.3 Gilmore's Specific Active Stock Analysis

This section details the thought process and what contributing factors were involved in forming and maintaining my active account. Additionally, this section examines why a stock was held or sold, and helps explain why a stock may have performed as it did with regard to information learned about it. However, due to a short trading period, many determining factors involved in selecting a stock did not have enough time to create a substantial impact on the stock's performance. Additionally, some measures have not changed in such a short period, and did not contribute to the selling of stocks in any situation. The stocks are presented in alphabetical order.

#### EBay Inc. - EBAY

EBay provides an electronic auctioning service and is one of the most successful websites to date. I purchased eBay with the cash I received from selling JetBlue and some extra cash I had left from the initial balance that was allotted for this portfolio. EBay was a slight risk because of a high P/E ratio and was being traded above the median of its 52-week range. At the same time, eBay showed extremely strong earnings growth since 2000, which was very encouraging.

This stock was one of the strongest performers in my active portfolio, with returns of 11.2%. MarketWatch.com reported "Americans will spend an estimated \$19 billion online this holiday season," and with eBay being a leading online merchant, it was in a good position to capitalize on this oncoming e-business (Francisco).

Moreover, Forbes.com projected that eBay's acquisition of Skype, an internet communications software provider, could bolster the stocks performance in the near future (Roney). EBay was a successful investment because of its steady earnings growth and positive news reports.

#### El DuPont de Nemours & Co. - DD

DuPont is a leader in multiple fields of science and technology and I originally invested in it to increase the diversity of my active account. While the P/E ratio indicated this stock was slightly overvalued, a recent steady increase in stock price along with a price below the median of the 52 week high/low encouraged ownership of this stock. EPS showed an increase in 2004 as well, and forecasted earnings for 2005 were higher than what was reported in 2004.

Unfortunately, I mistimed my purchase of DuPont, as it had reached the pinnacle of its most recent surge in price and dipped down to a lower level and remained there for the remainder of the trading period. However, I did not sell the stock in anticipation of an increase which was not realized during the trading period.

#### Exxon Mobile Corp. - XOM

Exxon Mobile is the world leader in the petroleum and petrochemical industry. The main business activity of Exxon Mobile involves the production, exploration and sale of crude oil and natural gas, along with the manufacture, transportation and sale of petroleum products (Yahoo Finance). Exxon Mobile was selected because it has been a strong performer in its industry with relatively stable growth over the past three years. Additionally, the lowered price of oil and onset of winter are both factors that would increase the overall sale of petroleum products. Earnings saw a strong increase from an

Earning per Share (EPS) of 1.68 in 2002, to 3.15 in 2003 and 3.89 in 2004. Exxon Mobile's Price to Equity (P/E) ratio was similar to that of the industry, but because the purchase price was roughly in the middle of the 52-week high/low and a very strong company story, I felt this stock would increase steadily over the trading period. Moreover, Exxon Mobile had just reported earnings of almost \$10 billion for the third quarter of 2005; over \$4 billion more than in 2004.

Forbes.com reported Exxon Mobile to be a "cash machine," producing an operating revenue of almost \$16 billion dollars in the third quarter. Furthermore, Nathan Parmalee of The Motley Fool described Exxon Mobile as "a big, safe oil company" and also noted "The company's oil business is strong all the way through, and its ability to refine sour crude should help ensure that margins stay solid." Because of this, when oil prices fell to five month lows, I was confident Exxon Mobile would recover and continue to be one of the more reliable stocks in my portfolio.

#### Intuitive Surgical Inc. - ISRG

Intuitive Surgical Inc. specializes in the manufacture of robotic surgical equipment, most notably the da Vinci Surgical System (Yahoo Finance). This stock had just been upgraded from 'underperform' to 'buy' by the investment bank Jefferies & Co. The stock price immediately benefited from this as many investors, myself included, heeded Jefferies advice. However, like so many of my previous investments, I did not benefit from the jolt in price. This time, determined to avoid more losses, I sold Intuitive Surgical for a minimal gain the next day. This was a mistake, because by the end of the trading period the stock had risen 17.7% and would have been my most profitable investment by far. I was too impatient and afraid that the stock was at the beginning of

what could be a long downturn and cost me thousands of dollars. My intuitions were wrong though, and I missed out on substantial gains. If I had held this stock because of the upward trend shown by its EPS, I would have been significantly more successful than I was.

#### JC Penney Co. Inc. - JCP

JC Penney is a successful clothing retailer with distribution outlets including retail stores, magazines and the internet. I purchased JC Penney with extra cash from the original sum given to the active portfolio about two weeks into the trading period. This stock's EPS was not overly impressive, but I was looking short-term on this investment, in an attempt to capitalize on a recent boom in price. This increase in price was driven by an article that reported a 2.4% increase in same store sales. I was able to make significant returns in the same day I bought shares, but I should have sold at that point. JC Penney went on to be moderately volatile for the remainder of the trading period, but I held on to it in anticipation of the holiday shopping season generating an increase in earnings. Unfortunately, the trading period ended too early for any significant gains to be realized from the holiday shopping season.

#### JetBlue Airways Corp. - JBLU

JetBlue is one of the smaller airlines in the industry, but also one of the most successful since September 11, 2001. Having done previous research, I knew JetBlue was a standout company due to its emphasis on the customer, low costs and the quality that it provided. Proof of this company's strength lay in the fact that it has been successful in a struggling industry. Also, I foresaw holiday travel during both November and December as an event that would boost overall profits for JetBlue. Areas of concern

were the volatility of the stock price in recent history and a relatively high P/E ratio of 86.82 as compared with the industry at 36.90. However, I was willing to take a risk on a company I knew to be sound and that was being traded at one of the lower prices it had seen in recent history.

Less than a week into the trading period, I began to grow wary of my risky investment after reports were released for third quarter earnings that fell short of estimates. I sold at a minimal loss in favor of other stocks with more upside, which proved to be a successful move, as JetBlue experienced little variance for the remainder of the trading period. However, in late December, 2005, JetBlue underwent a 3:2 stock split. If the trading period was longer and I was more patient with my investment, this risk would have paid off.

#### Merck & Co. Inc. - MRK

Merck is a large pharmaceutical manufacturer and developer. This investment was the biggest mistake I made in the entire simulation. On November 3, 2005, it was reported that Merck had beaten a lawsuit regarding the drug Vioxx. This caused a large spike in the stock price of Merck, and I impulsively attempted to make some return on this recent news. However, I was too late to act, and when I bought shares the stock was already returning to its previous levels. I recognized this and sold later that day for the smallest loss I could manage, but I had already suffered for my critical mistake. I now realize that short-term trading and reacting to news articles is too risky to be profitable, and the most success to be had is in a long-term approach to the market.

## Microsoft Corp. - MSFT

Microsoft is a software developer and one of the most powerful technology companies in the world. I selected Microsoft to my portfolio because it is an industry leader in the technology sector and is developing new products including Windows Vista and the X-Box 360. Also, the new X-Box was predicted to be one of the hottest holiday gift items of 2005, and it lived up to expectations. With a P/E ratio of 22.88, Microsoft was undervalued when compared to rest of the industry, making it an attractive investment. A very strong company story was also an important factor, along with a good personal experience with Microsoft products and customer support. Microsoft also reported strong growth in EPS, especially from 2004 to 2005, showing a large potential for a future increase in stock price.

While Microsoft has been facing competition from Google in the technology industry, Bill Gates welcomes the competition and claims to be unafraid (Paige). Additionally, Microsoft released a new 'Live Software' series which provides users with online versions of Microsoft software, in an effort to gain a larger market share in internet advertising (Abramson). Another impressive aspect of Microsoft is its ability to release new products and services seemingly every day, from enhanced security features, to an online book search engine, to an online classified service. Towards the end of the year, SG Cowen projected a 15% upside relative to the market for Microsoft in 2006 due to increased revenue from the X-Box 360 and SQL Server 2005 (Ng). These strong reports and outlooks on Microsoft all contributed to it remaining in my active portfolio for the entire trading period.

### Prudential Financial Inc. - PRU

Prudential provides financial products and services. I purchased Prudential at the same time I purchased eBay and JC Penney because, similar to JC Penney, it was in the midst of an upturn because of recent reportings. Prudential had just reported strong annuity sales and that earnings had doubled from the previous year. This drove up the stock price and I was able to make significant gains, but I did not sell as I should have. However, unlike JC Penney, I had no good reason to keep Prudential for the long term. I should have recognized the fleeting success and been satisfied with the return I had made on it. Instead, I sold a week later at a slight loss and the entire investment was completely worthless. This was one of the biggest mistakes I made in this simulation and I will not make such a foolish trade again.

However, Prudential did present a strong temptation as a long-term investment, with earnings increasing from 0.33 to 2.30 to 3.42 in the past three years. Also, this stock has shown a very steady upward trend in that time as well. Had the trading period not have been so short, I would have considered buying shares of Prudential as a safer investment to balance my portfolio.

### Texas Instruments Inc. - TXN

Texas Instruments (TI) “engages in the manufacture, design and sale of digital signal processors and analog semiconductors” (Yahoo Finance). TI was one of the strongest performers in my active portfolio. This was also another risk I undertook in this account, and it was successful. TI’s stock price had reached a four-month low and was just beginning to show signs of recovery. Despite an average P/E ratio, TI had shown steady growth in EPS from 2001 to 2004, moving from -0.12 to 1.05. Because of TI’s

strong earnings and recent unveiling of new DLP technology for high-definition televisions, I felt this was a good investment with large potential.

I held my entire position on Texas Instruments for about a week and a half, recognizing 10% gains in an extremely short time period. Wary that the stock had reached its peak, but not entirely convinced, I sold two thirds of my shares at a 10% profit. This was a safe move, but not an entirely wise one, as at the end of the trading period the stock had increased by an additional 6.6% of the original buying price. Because of my cautiousness, I ended the trading period with only 11.6% gains from Texas Instruments, when I could have seen an additional 5% return had I not sold. While a Bank of America Securities analyst did project a higher projected EPS than originally expected, he also admitted that the general consensus was that TI had peaked in the short-term. Because of the limited time-frame of this project, I did not feel that it would be wise to risk the entire return I had already made.

#### Verizon Communications Inc. - VZ

Verizon is a communications provider in both wired and wireless fields. Verizon was another company with which I had a good personal experience, and that along with a strong company story made Verizon a very attractive investment. A significant gain in EPS from 2003 to 2004 of 0.93 to 2.79 also was encouraging, and a low P/E ratio showed that Verizon was undervalued and should have increased over the trading period. An additional aspect that drew me to Verizon was the fact that its price was towards the bottom of the 52-week high/low and appeared to be about to recover to previous levels.

Verizon did not perform very well in my portfolio, although I could find no distinct cause. Competitors in the communications industry fared similarly to Verizon,



although none saw such a downturn during the time period of the simulation. Despite the direction of the stock price, the most relevant news articles stated an expansion of Verizon's network in many areas across the country. One area I had overlooked, that could have prevented this poor investment was the downward trend of Verizon's stock price during the past three years. At the same time, Verizon is a sound company and should recover to previous price levels; it just did not do so in the brief trading period.

#### Whole Foods Market Inc. - WFMI

Whole Foods Market is a natural and organic foods market. While I had never experienced a Whole Foods Market personally, the company puts an emphasis on quality and customer service and managed to carve a niche in the food retail industry through this. I took an approach opposite to that which had failed me in the cases of Merck and Prudential, and I bought shares of Whole Foods Market the day after profits were reported below the projection for the third quarter. The price was at a low point and I was looking to profit from its inevitable recovery.

This proved to be a successful strategy, as Whole Foods Market proved to be the most successful stock in this portfolio with gains of 12%. This stock also went on to split after the trading period ended, and has proven to be a sound investment despite a high P/E ratio and a slight dip in EPS in 2005. In fact, Morningstar.com claims that Whole Foods Market will continue to be profitable because of its strong and steady growth (Trigg).

#### Other Stocks

I considered some other stocks to invest in for multiple reasons, be it diversification or that I felt a stock had strong growth potential, but I was turned away

from these stocks for different reasons. Sirius Satellite Radio was on my list of potential stocks because of the popularity of satellite radio as a holiday gift and the recent addition of popular DJ Howard Stern to Sirius's network. However, I was dissuaded by the recently flattening out of price this stock had just experienced, and I foresaw a potential loss. General Electric also warranted some consideration as a leader in the automotive industry. A news report indicated that the CEO of the company bought shares, which generally indicates that internally the company has a positive outlook. However, erratic price movement caused me to turn away from this potential investment.

#### 5.4 Gilmore's Buy-and-hold Account Summary

Despite a long-term strategy, my buy-and-hold account outperformed the NASDAQ, DJIA and my active account. This can be attributed to three extraordinarily strong performances in the short term by Google, Apple and Starbucks. These stocks performed so well they were essentially responsible for the success of the entire portfolio. Another contributing factor was no significant losses like those I had experienced in my active account, as no portfolio produced a loss of greater than 1%. While this is a long-term portfolio, the short-term success is a coincidence of good timing. With this portfolio already producing over an 8% return, it could grow stagnant for many months and still be considered a successful investment. As noted in the background section 2.5.2 – (F), most stocks experience 80% of their movement in 20% of the time, and I was fortunate enough to have experienced large increases from multiple stocks in a short trading period.

#### Holdings

The largest percentage of my portfolio was comprised of Google, because of its tremendous upside and record of phenomenal growth since its IPO in 2004. Toyota,

Starbucks, Apple and Coca-Cola Bottling all were around 11-14% of my total portfolio because of their reliability and strength of brand. Entercom and Time Warner were viewed as riskier investments and only made up about 6% of the portfolio each. This balance of strong, risky and stable stocks all from different industries helps create diversification in the buy-and-hold account. Additionally, two mutual funds were purchased, one in bonds and one in European stocks, to increase the overall diversification of the portfolio. Also, cash was held at a steady interest rate.

### 5.5 Gilmore's Specific Buy-and-hold Stock Analysis

This section details the selection of each individual component of the buy-and-hold portfolio in alphabetical order, with mutual funds listed last. These investments were selected with the notion that they would perform well in the long-run, and not necessarily during the seven week trading period. Because of this, some positions may have been more successful than others when in reality they may be a riskier investment. These short-term fluctuations are misleading when taking a long-term stance, and because of this, the buy-and-hold account simulation may not have been indicative of the account's real world performance.

#### Apple Computer Inc. - AAPL

Apple Computer is a designer and manufacturer of personal computers and related devices. Apples most recent success has been in the form of a portable mp3 player known as the iPod. With two new models of the iPod just being introduced, I saw Apple as a strong company that was poised to make a strong run in stock price. These new iPods will also generate tremendous sales for Apple during the holiday shopping season, and should increase overall earnings significantly. Apple is a sound company

that has created a firm identity with strong sense of brand loyalty. While Apple's P/E ratio is slightly higher than the industry, EPS has been increasing since 2000, with over a considerable increase from 2004 to 2005. These strong earnings have fueled Apple's success in the stock market.

Apple was my top performer in the entire simulation. This stock shot up during the trading period, making gains of over 24% in the process. Credit Suisse First Boston reported that Apple was the top pick in the PC market because its one of the "profitable share gainers with compelling product cycles" (Roney). Additionally, the new iPods proved to be one of the hottest items of the holiday season and were almost impossible to find come December. This, along with budding partnerships with ESPN through its iTunes service and with Intel in its PC product line, makes Apple an incredibly strong investment that should be held for a good deal of time. As long as Apple remains an innovator producing high quality technology products, it will remain in my portfolio.

#### Coca-Cola Bottling Co. Consolidated - COKE

Coca-Cola Bottling is responsible for the production, distribution and marketing of Coca-Cola products. This investment was a mistake, in the capacity that it was only after I had invested in this stock that I realized it was the bottling division and not the company itself. I was looking for more diversification into the food and beverage market and added COKE to my portfolio at the last minute. However, this was not a good tactic as my research was not complete and this is not the company in which I thought I was investing. While I was not entirely comfortable with this investment, a low P/E ratio and decent reported earnings were enough for me to maintain possession of it. This was

unwise though, as Coca-Cola Bottling was not a successful stock and was entirely too volatile in both the short and long terms.

#### Google Inc. - GOOG

Google is an internet search engine and online advertisement service provider. This stock has been one of the hottest in the past year, with tremendous growth in the recent past. I bought Google with the intention of purchasing a strong company that is slightly risky but has tremendous potential to increase the overall value of my portfolio. I did benefit heftily from this purchase, as Google's trading price rose 15.9% during the trading period. Unfortunately, because of the extremely high price of the stock I was unable to purchase more of this booming tech stock, although it did represent almost 20% of my entire portfolio. Google remained a good investment because of strong earnings growth and service innovations such as Google Base, which is a service that collects data regarding consumers and businesses and translate it into searchable material. Fueled by impressive quarterly results, Google broke \$400 dollars a share in mid-November, and continued to rise (AP). Also introduced was a highly successful branch entitled Google Publication Ads, which buys magazine ad space and divides it up and sells it to Google's many clients (Elgin). Google remained a strong investment for the entire trading period and was a large factor in my buy-and-hold portfolio's success.

#### Entercom Communications Corp. - ETM

Entercom is a radio broadcasting company with stations broadcasting in major cities across the country. I was first attracted to Entercom because of the high quality radio stations it owned in the Boston market. At that time, Entercom's price had reached a low for the past four years, and was showing signs of recovery. Additionally, the P/E

ratio was significantly lower than the rest of the industry, indicating that the price was likely to rise in the near future. I did see this as a risk due to recent volatility in stock price, so I limited my position to only just over 6% of my entire portfolio. Entercom also reported a steady growth in earnings as indicated by EPS ratios of 0.38, 1.12, 1.38 and 1.50 over the past four years. All signs indicated this stock was ready to move steadily upwards.

This was only partly true however, as the stock increased during the first month of trading. This increase began to taper off in late November, and when the company decreased fourth quarter projections because of the struggling market in New Orleans after Hurricane Katrina, the price moved even lower (AP). Normally, I would have been inclined to sell Entercom when the price began to flatten out, but because the stock is in a long-term portfolio, I waited in anticipation of a long-term increase due to a low P/E ratio and a steady growth in earnings.

#### Starbucks Corp. - SBUX

Starbucks is a coffee brewer and retailer that has created a strong image and brand equity on a worldwide level. Starbucks is one of my personal favorite places to get coffee, not only because of the quality of the product and service, but also the atmosphere and culture that this company has created to go along with its brand. The remarkable thing about Starbucks is its ability to take a commonplace item, coffee, and turn it into an expensive luxury good that is incredibly popular. I have never once been in a Starbucks that is not busy, and it seems impossible to go an entire day without seeing one.

Starbucks has seen steady growth over the past two years and very strong growth over the past 2 months. On top of this, EPS has increased at an unbelievably stable rate since

2001, reporting figures of 0.23, 0.27, 0.34, 0.48 and most recently 0.61. Despite a moderately high P/E ratio, Starbucks price should continue to rise for at least the near future.

Starbucks performed very well in my portfolio and was one of my top performers with a 10.14% return. Also, Starbucks benefited from strong customer and shareholder loyalty, and won the Brandweek Customer Loyalty Award in its sector for 2005 (Maranjian). More evidence of this loyalty was shown when Starbucks decreased earnings estimates for 2005 because of a new rule that stated companies must report employee stock options on the income statement as an expense, and the shareholders were not deterred by this decrease in projection (Van Riper). Overall, Starbucks is a high quality company and one of the strongest brands on the planet, and will remain in my portfolio for some time to come.

#### Time Warner Inc. - TWX

Time Warner is a media and entertainment company that is volatile in the short term but that has been very stable over the past two years. Despite a high P/E ratio and a price around the middle of the 52 week range, Time Warner has a good company story and has shown an increase in earnings in 2004 and 2005. Moreover, this stock has been a consistent performer that will bring balance and diversification to my buy-and-hold strategy. Time Warner also released the fourth Harry Potter movie, which continued in the series' tradition of box office success.

This stock did not perform well during the trading period and was as volatile as it had been in the past in the short-term. This is a key example of a long-term position that appears to be a poor investment because of the limited amount of trading time. While I

did recognize a loss from Time Warner, I still feel that in the long-term this stock will continue the slight upward trend it has experienced during the past two years. Also, this stock was purchased to post small gains and minimize risk, not to post 20% gains, and in that capacity it has been a moderate success.

#### Toyota Motor Corp. - TM

Toyota is a leader in the automotive manufacture industry. I selected Toyota in this industry as opposed to other stocks because of its strength in the market and the pervasive knowledge of its product quality. Another contributing factor was Toyota's history of outperforming its market, and I anticipated that this trend would continue. While the stock price was at the top of its 52-week range, I felt Toyota would produce steady growth and would be a safe stock with which I could anchor my portfolio. Adding to my positive viewpoint of this stock was a solid earnings growth dating back to 2001, with the EPS being 2.28 then and having since grown to 6.62 currently.

Toyota performed as I expected it to during the trading period, posting moderate gains and acting as one of the most reliable stocks in my buy-and-hold portfolio. Even a reported slump in automobile sales in November only reduced Toyota to modest gains, whereas it caused losses in the 'big three' American auto manufacturers: Ford, General Motors and Chrysler (Jayson). Toyota is also planning the release of a revised line of their current cars, as well as two new models in the United States in 2006, and it is being predicted that these new models will carry Toyota to new heights of success (Flint). Because of this stock's past success combined with its solid numbers and bright future, Toyota remained a sound investment in this account.



#### T. Rowe Price Emerging European & Mediterranean Fund - TREMX

I selected this mutual fund to add to my portfolio in an attempt to benefit from the potential of the overseas markets while avoiding the high level of risk associated with them. This fund has shown very steady and strong growth in the past three years and was one of the top performing foreign mutual funds in the long-term. This fund performed well with 3.42% gains and should continue its solid growth into the future.

#### Analytic Short-Term Government Income Fund - ANSTX

This mutual fund was designed to put a portion of my funds into bonds without having to select them myself. Through this, I am able to increase diversification in my portfolio, reduce risk, and participate in the bond market. I selected this fund because of its past performance and robust growth in the past five years. This was not a lucrative investment in the short-term however, as it yielded negative returns during the trading period. Still, this was a portfolio designed with a long-term strategy in mind, and mutual funds are best suited to produce gains in the long-term.

#### 5.6 Podmostka's Active Account Summary

The active portfolio delivered strong gains because of strength within its individual stocks and that of the overall market. All of the stocks were picked because of strong earnings, growth potential, and healthy company stories. These are some credentials for posting great gains and they did. During the trading period the market posted big gains as well which was important. Diversified portfolios tend to move with the performance of the market. If the market is doing well it is likely that the portfolios would as well. Towards the end of the period the DJIA was approaching the 1100 mark.

This mark had not been reached since before September 11, 2001. The NASDAQ was also posting over four year highs. With diversification of using stocks from different industries the portfolio mimicked the NASDAQ index performance to a large extent. With it posting good gains, it meant good gains for the portfolio. The decline in oil prices and good consumer spending during the holiday season drove the market and investors. Businesses and the economy did well.

### Holdings

Each stock was chosen from a different industry to give the portfolio diversification. With diversification, one stocks loss could be offset by another's gain. Different industries do not likely perform in the same manner. The Cheesecake Factory and Best Buy made up the largest holdings of the portfolio with each consisting of about 18%. They were given the largest holding because they were seen as the strongest stocks and potential performers because of their history of earnings and good stories. The Great Wolf Lodge and XM Satellite Radio were seen as riskier stocks because the companies had not to date posted positive earnings per share. This is why their holdings were smaller than the rest. All other stocks were divided more evenly.

A foreign stock mutual fund was purchased to take advantage of the strong gains in foreign markets. Its total position was kept small because foreign stocks present more risk with lack of information and fluctuating exchange rates. A mutual fund was used because it adds instant diversification and sidesteps lack of knowledge about foreign securities. A pacific fund was used because of the recent explosion in Asian markets. This fund also added further diversification to the portfolio because foreign economies do not rise and fall in the same degrees and times as the United States.

The portfolio was also diversified within the risks each individual stock represented. The stocks were purchased for their different risks. Each stock resembled a different amount of risk and thus potential gain to the portfolio. The portfolio contained a balance of safe performers, Microsoft and Wachovia, to steady growers, Best Buy and the Cheesecake Factory, and the risky home runners, Great Wolf Lodge and XM Satellite Radio.

The portfolio was not fully diversified because it did not contain any bonds or much of a cash position. It was constructed as such because the main purpose of the project was gaining experience in stocks. Thus, the portfolio's components were solely stocks to gain the most experience in this area.

#### Buying/Selling

Google's stock was sold from the portfolio because it was thought it neared its maximum price at \$400 a share. The stock became too risky to hold anymore. The P/E ratio was growing rapidly and it was concerning if Google could continue to maintain its high earnings to cover this lofty ratio. Google represented the portfolio's only sale because all of the other stocks' stories remained unchanged and still presented the same gain possibility as when purchased. They were held through the last day of trading. CVS and Expedia replaced Google's holding in the portfolio. Expedia was given a smaller holding because it was seen as riskier with being a newer company, but had potential for gains.

#### 5.7 Podmostka's Specific Active Stock Analysis

Below is a description of the components of the active portfolio. The descriptions highlight why each stock was purchased, why it was held, and reasons for why the stock

performed in the manner it did. The reasons why a stock was purchased gave rationale for why the stock performed in the manner it did. This is because the trading was for just a short period and most companies did not release any new earnings reports thus their company stories remained largely unchanged. All of the stocks in the portfolio were purchased as the methods describe in the methodology.

#### Best Buy Co. Inc. - BBY

Best Buy is a consumer electronic retailer. The company was chosen because of strong earnings performance, ratios, and story. Its yearly earnings have grown in the past three years and presented strength. EPS were \$1.27, \$1.61, and \$1.86 respectively. Forecasted 2005 EPS remained strong and continued the growing trend at \$2.17. In the past five years, earnings have averaged growth of 20.74%. Best Buy had excellent ratios with ROA being 10.17% and ROE 20.74%. Insider holdings were strong and represented 17.72%. Best Buy was also held by strong institutions including Fidelity and Putnam.

The company presented a strong story. The holiday season looked optimistic for Best Buy. "The largest consumer electronics retailer by sales has "compelling" offers for the holiday, said Chief Executive Anderson" (Hanford, 2005). Best Buy opened the holiday sales with big crowds. It presented power with being able to introduce new products quickly and its aim at pleasing customers. The company had a new strategy out in which it segmented specific stores and targeted a demographic. Best Buy recently developed the Geek Squad to better aid in service to its customers with computer related issues. When marketing products, Best Buy aimed at hitting customer expectations (Lawton, 2005).

The company stated it has not reached its potential. It had room to expand by building new stores before it reached its saturation point and to gain market share (Civils, 2005). Best Buy was purchased because of this. It posted great results through much of the trading period, but fell late in the period. This fall was because third quarter profit fell 6.8% (Covert, 2005). Adapting stores to meet customer demographics had disappointing results and was costly (Covert, 2005). Chief Executive Anderson said, “Spending rose to what we feel is an unsustainable level” (Covert, 2005). Quarterly revenue increased 10%, but expenses rose faster than revenue (WSJ, 2005). Best Buy was held because this will have only short term effects and the overall company still remained strong.

#### Cheesecake Factory Inc. - CAKE

The Cheesecake Factory is a restaurant and food bakery operator. The company was chosen because of earnings growth, good ratios, and a strong story. Yearly earnings per share grew in the last three years. EPS were \$0.64, \$0.74, and \$0.84 respectively. Forecasted EPS for 2005 remained strong and continued the growing trend at \$1.09. Over the past five years EPS grew spectacularly, with averaging 22.49%. ROA and ROE ratios showed good strength and the company had strong institutional ownership. The Cheesecake factory over the last three years consistently outperformed the restaurant index.

The company presented a strong story. In the face of weakness in the economy from high gas prices and hurricanes, same store sales remained positive (Stearns, 2005). This was because the restaurant targets a higher income customer base and provided a wonderful value position. “The Cheesecake factory has one of the highest sales/square

foot ratios in casual dining” (Gibson, 2005). The restaurant showed an improved cost environment and powerful operation controls with a 76% quarterly earnings increase (Gibson, 2005). The restaurant planned to continue growing with opening a record 21 restaurants next year (Gibson, 2005). In my visits to the restaurant, the food has been great and it has always been extremely crowded. The company was purchased, held, and performed well because of this data. It had a slight bump over the trading period because its rating was cut by JP Morgan to a neutral performer but regained strength when it was moved to accumulate.

#### Children’s Place Retail Store - PLCE

Children’s Place is a kid’s oriented retailer which operates both the Children’s Place and Disney stores. It was chosen because the company delivered strong and growing earnings per share over the last three years among other things. EPS were \$0.30, \$0.85, and \$1.56 respectively. Forecasted EPS for 2005 remained strong and continued the growing trend at \$2.24. Its P/E ratio was more than reasonable with its strong growth. The company had powerful institutional holders with Fidelity and 21.02% insider holding which both presented strength.

Children’s Place company story was very strong. September same store sales rose 2% and company sales were up 52% since a year earlier (WSJ, 2005). The company stated inventory was well positioned for a strong holiday season (WSJ, 2005). October same store sales were also up 13% and the company raised its year end earnings projections (WSJ, 2005). The company expanded with opening more core and Disney stores which presented more earnings possibilities. My visits to the stores showed quality and wanted products. The company was purchased and held because of this. It posted

such strong gains because it kept beating Wall Street expectations and posted strong earnings. The company boosted its year end EPS up in the range of \$2.35 to \$2.40 (WSJ, 2005). In November, same store sales rose 12% beating Wall Streets expectation of 6.9% (WSJ, 2005).

#### CVS Corp. - CVS

CVS is a retail drug store. The company was chosen because of continuous earnings growth and a good story. In the past three years, EPS have grown. EPS were \$0.88, \$1.03, and \$1.10 respectively. Forecasted EPS continued the growing stream at \$1.37. CVS stock provided a sturdy company to the portfolio. Over the past five years EPS have been steady, with growing at an average of 7.20%. CVS presented strength with being owned by powerful institutions including Fidelity.

The company story provided strength. CVS's third quarter sales rose 13% and same store sales rose 5.7% (WSJ, 2005). It looked positive that strong sales would continue. Pharmacy sales make up a large portion of CVS's sales and the company stated lower pharmacy sales were not expected. The aging population presented opportunity for stronger drug sales into the future. CVS stated that it expected to obtain its year end earnings forecast (WSJ, 2005). Operations have been improved. In recent years, CVS tightened the gap in execution with the leading drug retailer Walgreen's (McDonald, 2005). The company was purchased, held, and performed as it did because of this.

#### Expedia Inc. - EXPE

Expedia is a travel service company. The company was chosen because of its strong earnings, insider holdings, and story. EPS over the last three years were strong. EPS were \$0.36, \$0.35, and \$0.44 respectively. Forecasted 2005 EPS remained strong at

\$1.21. Recent quarterly earnings compared to last years also grew to \$0.23 from \$0.17 and insiders represented large holdings at 65.75%.

Expedia company story was strong. Bookings at hotel.com showed firm trends for the fourth quarter according to the Chief Executive and rose 9% in the third quarter (WSJ, 2005). The hotel.com web site was revamped with new functionality such as virtual tours. The pace of innovation at Expedia is forecasted to pick up in the future as software is expanded according to CEO Khosrowshahi (WSJ, 2005). Expedia attracted a huge portion of online travel traffic. Khosrowshahi said, “Of consumers who purchase travel using the Internet, 75% visit Expedia's site at least once while shopping for their trip” (WSJ, 2005). Total bookings at Expedia were up 21% from the year earlier (WSJ, 2005). For these reasons Expedia stock was purchased, held, and increased in value.

#### Google Inc. - GOOG

Google is a company that provides internet search and advertising. Google was purchased because of its strong earnings, innovative story, and healthy ratios. Over the last three years its earnings have been strong. EPS were \$0.45, \$0.41, and \$1.46 respectively. Forecasted 2005 EPS projected a huge increase at being \$5.86. Recent quarterly earnings have grown tremendously from last years. The last quarter's EPS was \$1.32 verses \$0.19 from a year ago. Google had strong financial ratios. Its ROA was 20.10% and ROE was 22.80%. Strength resided with insiders representing a large ownership position at Google of 37.30%.

Google's company story presented strength. The company's mission was to, “organize the world's information and make it universally accessible and useful” (Lohr, 2005). Its revenues grew by almost 100 percent a year (Lohr, 2005). Google was the



preliminary point for finding online information. It held 45% of the online search market (Boslet, 2005). Google spent its investment dollars wisely. “For every dollar Google invests in its business, it brings in 65 cents of earnings” (Boslet, 2005). Google hired employees that were over qualified for there positions. It attracted some of the best companies for advertising dollars. “Google is attracting more business from Fortune 500, said Chief Executive Schmidt” (Boslet, 2005). The company was always innovative. It was developing systems to access books online. Google was bought and held because of this. It was sold because it was thought that its 366% growth since its public offer would present fears about the company’s ability to sustain growth into the near future. Its P/E ratio was high and seen as risky at 86.54.

#### Great Wolf Resorts Inc. - WOLF

Great Wolf Resorts is a family entertainment resort company. The resort was picked because in the last three years, yearly earnings have grown and the company had a good story. EPS for the last three years were -\$1.09, -\$1.07, and -\$0.62 respectively. Forecasted EPS was strong and continued the growing stream at \$0.01. Strength resided with the resort being largely owned by insiders at 53.74% and having strong owners with Deutsche Bank. This presented strength because insiders will likely pay more attention to the stock price when they own it.

The company story was good. The resort lowered its fourth quarter loss projection and properties in Wisconsin were doing well (WSJ, 2005). The company was also building new properties. I, myself, had a very pleasant visit to the resort. The resorts indoor water park was spectacular and drew crowds. The entertainment, rooms, and dinning were also good. The company was purchased, held, and grew because of this.

### Microsoft Corp. - MSFT

Microsoft is a company that produces software products. It was purchased because of its consistent yearly earnings growth, safe story, and strong ratios. Over the last three years earnings have grown. EPS were \$0.69, \$0.75, and \$1.12 respectively. Forecasted 2005 earnings continued the growth at \$1.31. Microsoft ratios were strong. ROA was 12.60% and ROE was 19.93%.

Microsoft company story was good. The company was launching innovative new versions of its Windows, Office, and Xbox system. Chief Executive Ballmer calls this, “the best pipeline we've ever had in the company” (Reiter, 2005). The new Windows will represent the biggest update since Windows 95. Microsoft’s plants are running at full capacity to meet the large demand of wanted Xbox 360’s. Microsoft had billions in cash. “Microsoft announced last month it will buy back \$19 billion of its stock by the end of 2006” (Stepankowsy, 2005). This showed Microsoft’s had confidence in its future business. Microsoft had improvements in mind for the future. Bill Gates said, “the software giant needs to better address technologies and trends that are fueling a new wave of money-making on the Internet” (Guth, 2005). It was purchased, held, and produced its gains because of this.

### Wachovia Corporation - WB

Wachovia Corporation is a financial and banking provider. It was purchased because of its continual earnings growth and good story. The last three years presented repeated earnings growth for Wachovia. EPS were \$2.60, \$3.17, and \$3.81 respectively. Forecasted future earnings for 2005 improved at being \$4.29. Over the last few years, Wachovia has outperformed the banking industry. The company had institutional

holdings of only 53%, which presented strength from less fear of large institutional selling's.

The company's story was good. Wachovia was on track to capitalize on \$150 million in savings from its efficiency program this year (Enrich, 2005). The banking area was also improving for Wachovia in allowing it to scale back its deposit attraction program. This allowed Wachovia to place money in other places. The company improved operations. Wachovia cut some management positions to centralized locations to better attack US top markets (Juan, 2005). It hired veteran brokers to better attack affluent clients. Wachovia saw opportunities for the future in credit cards and residential mortgages which do not currently provide large gains (Sechler, 2005). For these reasons, Wachovia was purchased, held, and provided gains.

#### XM Satellite Radio Holdings - XMSR

XM Satellite Radio provides a satellite radio service. The company was purchased because of improving earnings and being a product with growing popularity. Over the last three years earnings have grown. EPS were -\$5.95, -\$4.83, and -\$3.3 respectively. Forecasted EPS are projected to improve to -\$2.75. The company had powerful institutional owners with Fidelity.

XM had a good story. XM was the larger of the two satellite radio providers with nearly double the subscribers. It sold its products through retailers and package deals with car manufactures. XM dominated services bought in newly purchased cars, where a majority of the subscribers are found. In the fourth quarter, XM expected subscriptions to grow. The Chief Financial Officer saw the company becoming cash flow positive by the end of 2006 (Sheng, 2005). The company's market share stayed steady, with it

signing 63% of new subscribers during the third quarter (Sheng, 2005). But, importantly, average revenue per user grew 13.2% from last year (Sheng, 2005). XM focused on programming with signing contracts with MLB and famous people. The stock presented risk however because in this area there are a lot of costs to gain profits. The stock was purchased and held because of this. XM was at an early stage of what will eventually should be good growth.

#### 5.8 Podmostka's Buy-and-hold Account Summary

The Buy-and-hold portfolio did not perform as well as the indices because of poor performance within its individual stock components. The poor performance of the individual components offset the strong gains of the overall market. Three of the portfolios stocks finished the trading period with negative gains. With diversification however, the portfolio still finished with a positive gain. Stronger performing stocks offset the losses of the weaker ones. The portfolio's performance mimicked the movements of the DJIA to an extent.

With this being a long term portfolio, this poor performance for the short period is not necessarily concerning. The stocks were purchased for their long term gain capabilities. Because of this, even though some stocks had negative gains for the period they were not sold. They were not sold because when looking into the future and the long term the companies still remained strong. When looking at the portfolio a month later, it has performed very strongly. Because of its long term scope, no sales were made in this portfolio over the trading period.

## Holdings

In this portfolio more of a total diversification and realistic approach was taken. The investing money was divided up between stocks, bonds, and cash. This was done because each of these options represents different risk and gain possibilities. By spreading money across all of these areas the portfolio becomes less risky. Because I am relatively young and do not have any responsibilities, an aggressive portfolio consistency was taken. The portfolio consisted mostly of stock and smaller holdings in bonds and in cash. Because bonds were not studied in depth, their position was made up of professional chosen mutual funds. Cash positions were held in banks collecting three percent annual interest. Interest was distributed daily according to the end of day cash position.

Diversification within the stocks was created by choosing each stock from a different industry and companies with different risk levels. Diversification is important and makes the overall portfolio less risky. Netflix Inc. and Famous Dave's of America made up the portfolio's smallest holdings because they were seen as more risky. They presented more risk because within the last three years each of the companies had negative earnings. American Express and American Eagle Outfitters made up the portfolios largest holdings because these companies presented the most strength. Over the last five years each company produced strong earning streams.

Each stock resembled a different amount of risk and thus potential gain to the portfolio. The portfolio contained a balance of safe performers, Campbell Soup and American Express, to steady growers, American Eagle and Motorola, and the risky home runners, Famous Dave's of America and Netflix. A foreign stock mutual fund was

purchased to take advantage of the strong gains in foreign markets. Its position was kept small because foreign stocks present more risk. A mutual fund was used because it adds instant diversification and sidesteps lack of knowledge about foreign securities. A pacific fund was chosen because of the strong growth in Asia. Foreign holdings present further diversification because they reside in different economies.

### 5.9 Podmostka's Specific Buy-and-hold Stock Analysis

Below is a description of the components of the buy-and-hold portfolio. The descriptions highlight why each stock was purchased, why it was held, and reasons for why the stock performed in the manner it did. The reasons why a stock was purchased gave rationale for why the stock performed in the manner it did. This is because the trading was for just a short period and most companies did not release any new earnings reports, thus their company stories remained mainly unchanged. All of the stocks in the portfolio were purchased as the methods describe in the methodology.

#### American Eagle Outfitters - AEOS

American Eagle designs and sells affordable clothing. It was chosen because of its strong earnings, ratios, and company story. Over the last three years the company has shown good earnings. EPS were \$0.68, \$0.58, and \$1.49 respectively. Forecasted EPS are expected to grow and be \$1.91. Over the last five years EPS have grown strongly and averaged 19.21%. American Eagle had great ratios. ROA was 22.98% and ROE was 29.79%. American Eagle sold at a very reasonable P/E ratio with such strong growth at around 13.

The company had a strong story. In September, same store sales increased 13% and for a 35 week period sales were up 28.6% (WSJ, 2005). Third quarter profits grew

27% (WSJ, 2005). The company's board authorizing it to buy back 4.5 million shares signified American Eagle had faith in its future performance (WSJ, 2005). Online sales performed strongly for the company. The company was bought and held because of this. It ended the trading period with a negative gain because its November sales were below expectations and it lowered its fourth quarter earnings forecast. However, this does not change the overall look of the company long term and it remained strong. Sales on the year still remained largely positive compared to last.

#### American Express Co. - AXP

American Express is a financial company in credit cards and travel. It was chosen because of its earnings and story. Over the last three years, yearly earnings have increased. EPS were \$2.01, \$2.31, and \$2.74 respectively. Forecasted earnings continued the growth at being \$2.76. Over the past five years, EPS have grown solidly at an average rate of 8.65%. American Express had powerful holders including Berkshire Hathaway.

The company's story was strong. Its third quarter net income grew 17% (Sidel, 2005). Credit card spending and customers increased. "Total spending on American Express cards rose 18% and the number of cards in circulation rose 9%" (Sidel, 2005). Strength was shown with improving ratios. The company's return on equity rose to 24.2% from last year's 21.5% (WSJ, 2005). American Express's long term growth strategy was strong at being 12-15% a year (Horowitz, 2005). This information describes why the stock was purchased, held, and performed as such.

### Apple Computer Inc. - AAPL

Apple Computers is in the PC and portable music business. The company was chosen because of its consistent growth in earnings, recent innovation and story, and strong ratios. Over the last three years earnings have grown. EPS were \$0.09, \$0.36, and \$1.56 respectively. EPS projections continued this growing trend at being \$1.78. Over the past five years, EPS have been steady at an average of 7.39% growth. Apple's ratios were good. ROA was 10.52% and ROE was 21.29%. Apple was owned by strong institutions including Fidelity.

The company had a great story. Apple's iPod line was extremely popular and sold like crazy. The iPod line "controls 70% of the global market" (WSJ, 2005). Not only was the hardware selling but accessories were as well. Demand for some of its iPod units exceeded supply. Apple reached deals with Disney to supply content to its new video iPod models. Profits were strong. "Its quarterly profit more than quadrupled on a 57% increase in revenue" (Wingfield, 2005). In its PC business, its MAC's produced 48% in growth for the quarter (Wingfield, 2005). Apple controlled the online music business with its iTunes service and sold more music than top country retailers (WSJ, 2005). Analysts estimated opportunistic sales for Apple during the holiday season. The stock was bought, held, and had strong performance because of this. The company generated positive reports in innovation and sales throughout the trading period.

### Campbell Soup Co. - CPB

Campbell Soup is a food products company. It was chosen because of its consistent yearly earnings and being a safe company. Over the last three years earnings have continually grown. EPS were \$1.52, \$1.57, and \$1.71 respectively. Forecasted



earnings continued the growing trend at being \$1.75. Recent quarterly earning showed growth and strength with being \$0.23 compared to last years \$0.14. Campbell Soup's large insiders holding of 42.89% represented strength.

The company had a good story. Campbell Soup's sales rose 1% in the first quarter compared to last years (Berk, 2005). The company's operations were improving. "Profits are growing faster than sales because Campbell is becoming smarter about growing their business efficiently," said analysts (Berk, 2005). The industry showed promise. "Over the past few years, all the major food groups have focused their efforts on tidying up portfolios, jettisoning underperforming brands, exiting from low-growth categories and investing in innovation and marketing" (WSJ, 2005). This is why the stock was bought, held, and performed as it did.

#### Famous Dave's of America - DAVE

Famous Dave's is a restaurant with barbeque related entrées. It was chosen because of its earnings growth and company story. Over the last three years earnings have been improving. EPS were -0.08, -0.25, and 0.29 respectively. EPS forecasts projected growth at being \$0.39. Famous Dave's had strength with strong holders including the Bank of America and Fidelity. Over the last years the restaurant has largely outperformed its index.

The company presented a good story. The company was expanding operations with increasing its restaurant numbers. Famous Dave's had won many awards from critics for its menu features, including, best cookbook, sauce, and ribs (WSJ, 2005). CEO Goronkin stated, "its staff have done a fantastic job operating restaurants with great food, great service and a fun and exciting atmosphere" (WSJ, 2005). Revenue in the third

quarter increased over the year's previous by 1.2% (WSJ, 2005). My personal visit to the restaurant was excellent. The food was very good and it was busy. The restaurant was bought and held because of this. It did not perform well because the restaurant was unknown to most, but presented strength into the future.

### Motorola Incorporated - MOT

Motorola is a provider of wireless electronic products. It was chosen because of its good earnings and company story. Earnings increased over the last three years. EPS were -\$0.59, \$0.39, and \$0.90 respectively. Forecasted earnings continued this growing stream and are projected to be \$1.11. EPS have had strong growth over the last five years with growing at an average rate of 17.37%. Motorola had strength with powerful holders such as Fidelity.

The company had a good story. Motorola's sales in the third quarter rose 9.3% (Silver, 2005). Its handset division performed strongly and market share grew. "Motorola said its share of the global market for cellphones rose to 19%, a 5.5-percentage-point gain from a year earlier" (Silver, 2005). Motorola focused on cost management in its business and hit people wants by producing phone styles that they desired. "Motorola, the No. 2 seller worldwide of wireless phones, has won back market share with snazzy new designs such as the Razr, while slightly boosting profit margins at a time when most rivals have been seeing their margins contract" (Bartash, 2005). Its popular Razr cellphone was being driven to become a family of products.

Motorola's strong sales in cheaper phones were important. "Selling more low-end phones eventually leads to higher sales of high-end phones," stated chief executive Zander (Cheng, 2005). Motorola focused on speeding up design and production

schedules to protect their designs from being copied by competition (Cheng, 2005). The stock was purchased and held because of this. It did not perform strongly because investors were worried that its key product, the Razr, would be a one hit wonder. New strong product releases should send the stock soaring.

#### Netflix Inc. - NFLX

Netflix performs an online movie retail service. It was purchased because of its growing earnings and unique business. Earnings have grown over the last three years. EPS were  $-\$0.74$ ,  $\$0.01$ , and  $\$0.33$  respectively. Forecasted EPS continued this growing stream and are projected at  $\$0.40$ . Netflix's large insider holding at 42.92% presented strength.

The company had a good story. Netflix led the online movie rental business despite competitor's lower subscription fees and maintained its growth strategy (WSJ, 2005). The number of subscribers and revenue at Netflix has grown in the year. Netflix's third quarter revenue rose 23% and its subscribers rose 61% compared to a year before (Simons, 2005). Netflix improved its operations. Marketing expenses, movie defects, and the cost per subscriber have dropped compared to last year (WSJ, 2005). Power laid in the company's strong and efficient delivery system. "Execution matters a lot, and we execute really well, Hastings said" (Edwards, 2005). Netflix projected strong growth into the future. "Netflix remains "comfortable" with its goal of 20 million subscribers by 2012 and committed to 50% earnings growth "for many years," its chief executive Hastings said" (Edwards, 2005). This information describes why the stock was purchased. The stock did not perform well during the period because its rating was cut to perform from outperform. Netflix was held because its long term story was strong.

## **Chapter 6– Conclusion**

Throughout the background, interview, and simulation, we made many observations of how to be most successful in trading stocks. Some of the main conclusions we have drawn are highlighted below.

- The short-term could be very volatile and it is difficult to consistently make a profit investing in a short-time period.
- Consistent earnings seem to be the most relevant indicator of success for any given stock.
- Diversification is key to any portfolio, as it helps lower the overall risk of each individual stock as a part of the portfolio.
- In our simulation, the decision regarding selling a stock proved to be very difficult, as it is important not to panic when prices drop.
- Institutional investors play a large role in the movement of stock prices.

Professional opinion and news reports affect the market strongly in the short term. During our trading period, a slight downgrading of a stock by an analyst often adversely affected the stock price significantly. For example, in Podmostka's active portfolio, the Cheesecake Factory was downgraded by J.P. Morgan to a 'neutral-performer' and it dropped in value. It then regained strength when it was moved back to 'accumulate'. Because of this, long-term investing is a much more lucrative stance. In fact, Mr. Peloquin, who is a professional investor, refuses to trade in the short-term because of risk. In using a long-term strategy, it is best to pick stocks based on consistent yearly earnings growth and future prospects. Earnings reports have the most direct effect on a stock's movement in the market. However, an investor should still be kept up to date with

current news, in case a large story develops that could make or break a stock in the long-term.

Diversification is a key aspect to any portfolios performance. With using diversification, one stock's loss is offset by another's gain. This occurs because different industries do not move in the same directions. By creating a portfolio with stocks from varying industries, investors are able to protect themselves against large losses and unsystematic risk. Also, in building a portfolio, an investor should try to have a good balance of safe performers and riskier stocks.

Another observation was the difficulty of determining when to sell a stock. In general, it is easier to sell a stock when it is going down, but harder to sell when a stock's price is increasing. This is the opposite of what should happen, however, as it is unwise to panic at a decrease in a stock's price if it due to non-threatening reasons. This is also a sound practice in overall investing: when the entire market begins to decline, investors must not panic and sell, but instead buy more when they feel the market has reached its lowest point. When the market recovers, these investors will recognize large gains for their patience.

Institutions play a large role as well. A smaller or lesser known company may not be successful in the market in the short term, not because it is a bad company, but because it does not have the exposure of the larger companies generated by institutions. Because institutions represent such large buying power, without them the stock is not going to move tremendously. Moreover, most portfolios' performance mimics the general market to a large degree.

Overall, investing is a valuable tool to learn about because it plays such a large role in today's society. Knowledge separates the successful from the unsuccessful. Technology has made investing easy and accessible to many more people. Investing benefits society as well, because it facilitates the transfer of funds. Through this project, we were able to experience stock market investing with no professional advice.

The simulation has been a valuable tool to gain investing experience and provide us with an opportunity to participate in the stock market without any of the risk. The most important strategy we learned is that, through good times and bad, an investor must stick to their original investment plan. If one deviates from this plan, such as short-trading or purchasing options, it can often lead to overall losses. Diversification is another key topic that is very important across different assets, because it is an effective reducer of risk. Additionally, an investor should not blindly purchase a stock they simply 'feel' will be successful; it is critical to do research and learn about a company before putting any money into it. Consistent earnings are a key statistic to look for, as it is one of the best indicators of a stock's past and future performance. As we look towards the future, the potential combination of all global markets, as well as the large profit to be made, should encourage investors to look overseas for other investments.

## Appendix A

### Financial Ratios

Current Ratio = Current Liabilities / Current Liabilities

Debt Ratio = Total Debt / Total Assets

Return on Assets (ROA) = Net Income / Total Assets

Return on Equity (ROE) = Net Income / Common Equity

Cash per Share = Total Cash / Common Stock Shares

Price to Earnings (P/E) Ratio = Price per Share / Earnings per Share

## Appendix B

### Interview Transcription

Date: November 22, 2005

Person: Gary Peloquin – Independent Certified Public Accountant/Money Manager

Purpose: To gain first-hand knowledge about stock market investing from an experienced source.

**Brent Gilmore:** What is your investing experience?

**Gary Peloquin:** I've been investing on my own for thirty years and professionally for about five to six years.

**BG:** In general, what do you feel makes a good stock?

**GP:** Well, anyone who owns a stock wants it go up, [and] doesn't want it to go down. So, what makes a good stock is a company, preferably that has been around [for] awhile, that has a good track record. Past history is usually, in most cases, a good indicator of future performance. So, I'm looking for a company that has been around a while, [and] that has been profitable. I don't like companies where the projections are from more of a red to less of a red. I like companies that are in the black, [and] that have been in the black for years. I don't like to buy companies that lose money in hopes they are going to make money. I am more conservative, especially in cases where I'm dealing with other peoples money, because it's not my money. I might be a little more willing to gamble and risk with my own money, but not other peoples' money. So, I'm looking for a company that has increased its earnings each year consistently. And something I would look for is at least 15%, where their earnings grow at least 15% a year, the more the better, and has been doing this consistently year after year after year, because I believe stock prices are driven by earnings. I take a long term view, [and] I don't do active short-term trading. My personal feeling is that's a losing proposition. I also don't time the market, that's also a losing proposition. Not that certain individuals can't do it, but to do it consistently over time [is] not possible, that's a losing proposition. I have a buy-and-hold strategy. As a matter of fact I buy a lot and sell very little. Some clients will ask me "I notice Gary you do a lot of buying but you almost never sell." There's another guy who has a very similar philosophy; a very famous guy: Warren Buffet. The only time I'll sell a stock is if it no longer fits my criteria. If a company has what is called a mortal flaw, like a governance issue, [where] somebody's ripping the company off, it could be like a WorldCom where they were having parties on the company's bill, it went bankrupt, inflated earnings, that type of stuff. That's a sign [to] get the heck out. But sometimes there are different types of flaws and corporate issues, like Tyco for instance. They had a situation there where the company's officers were padding the company's bills for their own personal things, but the company was still a good company and [was] still making a lot of money. Now they took a big hit, but they are still there, they've come way back, they pay a good dividend, and I have not sold any of my Tyco. Something like a WorldCom, that's a different story. They inflated their earnings, which means they didn't have what they said they had. The whole house of cards came falling down and there was nothing there and the thing went "poof", bankrupt. Clients are getting what I



call dinner checks in today, which means after the lawsuits and the bankruptcy filings they are getting enough of a check, hopefully, (this is a big settlement fund, millions of dollars in it), to go out and buy dinner, that's about it.

**Alan Podmostka:** How many years of earnings do you look in a company before you would consider buying it?

**GP:** Five. The more the better, but at least five years. What I don't want, again with a client's money, I don't want to jump on some flash in the pan type business because its too risky. I will give you a perfect example of one. There was an IPO they went public on Friday, and I know you know what the company is, Under Armour, they make athletic clothing and stuff like that. They just went public on Friday. The IPO price was 13 dollars a share, [and was] traded on Friday at 25 dollars a share, and is now probably at \$26-\$27 a share. As a matter of fact I've already had a couple of clients say "Why don't we buy some of this?" and my comment to that is "Its just too risky at this point." The thing is, it had some good financials going back a number of years, but it was a private company. I have to see more of how this thing plays out. Right now its just a flash in the pan, [and is] too risky. If I could have gotten in on the IPO I would have at 13 bucks a share. A lot of people made a lot of money of Friday. But all these big institutions get those type of opportunities. So five years on the earnings, at least.

**AP:** Do you look at quarterly earnings too?

**GP:** I don't really care about quarterly earnings, all short term stuff. Some of my services I get updated daily on what is going on. I look for my companies that I like. Quarterly earnings, I, obviously, always like to see going up, but it doesn't always happen because a lot of things can impact earnings. The economy, a recession, the company president quits, bird flu worries in the chicken or turkey, a bomb can go off somewhere, those things can have a sudden impact on earnings but the fundamental business is still there, so quarter to quarter I don't really worry about it. Year to year, trends going down, that kind of worries me a little bit. So [if] the 15% growth isn't there any more, that company is a dead company in my book. I'll give you a perfect example of one, Pfizer. A lot of clients own a lot of Pfizer. I will not buy any more Pfizer. I am selling Pfizer because in my opinion it's a dead company. Now they've got a couple drugs that could be coming on line next year, but I've thrown in the towel on it. It makes money, but business is soft with too much competition and I think you can make easier money other places. There's a lot of them like that. You know, Microsoft is another famous one. It's a dead stock. The company makes tons of money, [and] it paid its first dividend last year ever in its history to get rid of some of its cash, [but] the stock has gone nowhere. It's in the twenties and it has been in the twenties as long as I can remember. So if you're in it to make money, unless you're just relying on dividends which is nothing, (a dividend yield is just too low, you're lucky if you get 2% dividends), you're looking for growth; earnings growth which should reflect in stock growth and that's how you make money and capital gains. So I can't do it, and move on to something else.

**BG:** What are some key statistics you like to look for other than just plain earnings? Are there any other ratios that you look for?

**GP:** Yeah, I look at the price earnings, I compare it to its peers in that sector, [and] then I look at it in terms of the overall market and see where it's at. It gives me an idea of how pricy it is, or how not pricy it is. I don't tend to put so much on trailing earnings estimates I look at forward earnings estimates. I have to look at what they call TTM stats, which are Twelve Trailing Months, (basically a look back at the year) and I say how does the P/E compare to that or how does price to sales compare, that's another thing I look at, [but] I don't care about that. I mean I look at it and use it in terms of my evaluation of the company, [but] I'm more interested in where things are going in the future in terms of stats. Another thing I look at [is] how widely traded in terms of buyers in a company stock there are. What I don't like is a company stock that trades very thinly, and by that I mean there aren't a lot of shares traded on an average day, (you can get all these [numbers], you can get charts, and all that stuff), and I like something that's traded heavily by institutions, millions of shares traded every day, so [there is] a very easy market for it. You tend to get what I think is a better predictability from I think that.

**AP:** Is there a P/E ratio that is too high for you?

**GP:** That's all industry and sector based.

**AP:** What about something like Google right now?

**GP:** I wouldn't trust Google. I've had a couple of clients ask about it when it was way down in the 200s, but I just think that it's too risky at this point, there are too many unknowns, and unpredictable things that could go wrong with Google. Just like the IPO with Under Armour on Friday, its already done, and when you get into the stratosphere on some of these pricings it doesn't take much to really knock you down big time, and again, its not my money, its client money, [and] I wouldn't dare put somebody into Google.

But [with] P/E ratios, a P/E ratio in one sector can be totally okay for it, but in another sector, [it can be very different]. Tech P/Es are very high, [and] consumer staple P/Es are very low; you're comparing apples and oranges there.

**BG:** Is there a certain percent decrease that would convince you to sell?

**GP:** On buy-and-hold, if a company fell more than 10% from cost, I would certainly zero in on it more to find out what's going on. Is there one of these moral governance flaws that I see, [or] has new competition coming into play that's really knocked down its sale projections? You know, what's going on, what's causing it to drop so much? If it gets down to 20% under cost, then I'm going to look at it even more, and at that point I may or may not consider selling. You find that long term a company that is a good company with decent earnings growth will move up in stock price. What you can't get involved in as part of my job is to keep people from focusing on the short-term. I don't care about the short-term; all I care about is the long term. If somebody comes in here and says "I

want an active account, short-term trading, short-term gains,” I’m going to send them out the door somewhere else, it’s not what I do. Because that is a highly risky business plan, in my book. I don’t do that type of trading at all. So to answer your question “When do you decide to sell,” [there are] a lot of factors, not just if there’s a built in loss on it. Why is it happening? Is there anything horribly wrong with the company? If not, hold on to it. I can’t tell you how back in October of 2002, when the Dow was at 9700, (over a thousand points lower than it is today) how many people were ready to bail out. It was a very tough job at that time not only to convince those people: don’t bail out, don’t run for the exits, that’s where all the idiots are going, invest more now. Those people [have] earned triple digit gains today. But that’s part of my job too. Part of my job is a psychological one; to convince people to keep focused on what’s important, and to get rid of all the flutter and clutter and everything else that comes into things there.

**BG:** What economic events impact your decisions if they do at all?

**GP:** [There’s] not really much of an impact on the way I decide to design a portfolio for a client. The only thing that would cause me a little bit of a change in how I set up a portfolio is if there were a major economic slowdown starting to crop up (and I don’t see this happening), like a recession. Then I would possibly get a little more defensive in a client portfolio, stay more in cash and short term bonds, and wait until things get good and deep into recession, [when] prices are really cheap, and then start flooding back into equities. Otherwise, economic changes, [like] rates have been going up recently, doesn’t impact anything I do, except for clients who have bonds. We’ve been staying real short in bonds right now, 1 to 3 years. Because I want all that money coming back in when I think rates are going to be peaking, then I’ll be going long at that point.

**BG:** What are your thoughts about diversification and risk?

**GP:** [They are] extremely important. See I use five investment models for my clients based on their goals and risk tolerance basically. That’s one of the things I have to do before a client hands over anything to me, I have to sit down and get a feel for what are their goals, what are their time horizons, [and] what kind of risk levels are they willing to accept. I put all that together and I try to fit it into one of my five models that I use for investing. That model will then balance those two things, risk and time, and come up with numbers of allocations. Broad allocations, sector allocations, foreign versus domestic allocations [and] size of companies to be allocated and then I’ll fill in the blanks from there, but they’re all based on those risk levels, and I think a company ought to have, if it’s a higher risk company, you better darn well be projecting some pretty good rates of return for it. Otherwise it’s not necessary, I’ll take lower risk for a steadier return.

**AP:** How much foreign stocks are you pushing now into portfolios?

**GP:** It all depends.

**AP:** So it depends on the risk basically?

**GP:** Well, yeah, in the model. For instance I'm looking at one right here. This is using my aggressive growth model and at the moment this one here is pushing 8% in foreign stocks. But it's not just foreign stocks, it's foreign stocks that are further allocated between European, the Americas (which is Latin America too), greater Europe, greater Asia, and then subdivisions in between those even in terms of where you put it. I think right now there's a definite place in most portfolios for foreign stocks, that's where a lot of the action and big growth is occurring.

**BG:** Have you dealt with the short term enough to have found anything that works particularly well for that?

**GP:** You're talking to the wrong guy for the short term, as I've already told you my opinion on the short term: I don't like it [and] I stay away from it. If anything I've learned however, if you were doing it in short term, is an old saying that I go by, and it's "Pigs get fat and hogs get slaughtered." So, if you've made a good amount of money on short-term play, you get out and move on. Don't try to be a hog about it because when you really are trying to get even more and get extremely greedy, that's usually when you start getting killed. There is an investment strategy of one fellow that I follow. His investment strategy when he picks a stock is this: When a stock has gone up 30% he sells automatically. If the stock drops 10% he sells automatically. That's his strategy. So he just makes his picks, and if I get 30% profit I'm out, no matter how long it takes, and if it falls 10%, I'm out of that too, I move on.

**AP:** Has he had much success with that?

**GP:** Yeah, pretty good success with it.

**BG:** Do you feel there's a certain time of the year or a certain season that's better to buy stocks when the market performs better?

**GP:** Seasonality? Most definitely. The best time of the year to buy a stock is probably around August-September. If you're going to sell, the best time is now, in the next month or so. Sometime in there there's a little bit of a lull, and then sometimes, especially in the small companies, January-February is a good time to sell, there's a little seasonality in those. But generally speaking, I mean you can look at the stats, usually the summer doldrums do hit the market but out of even that, the worst time is usually August-September, a little bit of October, but then the best time to sell is the end of the year because that's when prices are usually higher. Buy low, sell high right?

**BG:** There is so much information you can find about any given stock, how do you filter through that information and find what you feel is most important?

**GP:** Well, there is a lot of stuff out there. I'm not an analyst, I don't want to be an analyst. I pay for other peoples opinions on things. However, as a whole, most analysts are usually wrong. There is an investment strategy, a very basic one, that whatever the consensus is you do the opposite. Because the consensus is usually wrong, it's a fact.

Now I'm not saying I invest that way, but I take it into consideration when I make an investment decision. First of all, I try to only use independent advice. I try to make sure that they are not connected to any brokerage firm or anything, that they don't have an arm or a subsidiary that's selling mutual funds, or a broker or subsidiary. I want truly independent research, where the only thing they're getting paid for is their time and their opinion on things, nothing else. I do get some of that. I subscribe to Breifing.com, which is used by virtually all the big brokerage firms too, its independent advice, and there's a ton of stuff you get from Briefing.com. Its live, its kept up to date too throughout the trading day. They have analysts that give opinions on things, and I find that their analysts seem to be pretty good too. They're pretty much on target when they give advice on things. It's totally independent; they don't have any connection to any other brokerage or mutual fund companies. I use Morningstar for another part of my analysis. Now, they do have mutual funds, but they have very strict in-house governance that separates their research group from their mutual fund group. A lot of people buy Morningstar research. They're mainly good in mutual funds, although they do do stock analysis too and recommendations, but they're really good. You know, the infamous star ratings from Morningstar, one to five stars and in between. One way or another Morningstar can make or break a mutual fund, that's how important it is. I get some research from Fidelity. They're my custodial service and my brokerage service that I use for clients. But beyond that I try not to get too immersed in all the research that's out there because there's too much of it, and at some point at the end of the day you have to read it all and put it together yourself and make a decision, and hopefully you make the right one. But its trial and error to some degree and as the years have gone by I've found I no longer use a lot of the things I started off with for research, because they weren't good, they didn't pan out, they were dead wrong most of the time, and I paid the price for it.

**AP:** Do you like the Wall Street Journal?

**GP:** I get it every day, I mean, I get it on Saturdays, I have the weekend edition now too. I read it cover to cover, not every article, but I do go through the entire paper, and look at some of their research that they've done. Again, I use it as one piece. I'm not going to make a buy or sell decision [based] on somebody's article in the Wall Street Journal. They have biases like everybody else, and you have to read through some of the biases sometimes. But I will say it's a highly regarded publication, Briefing.com will give references to articles in the Wall Street Journal and they can move a stock short-term, if you're in to that kind of thing. Its no different from Jim Cramer and Mad Money or any of those others that are on TV that if he likes a stock he goes wacko with his little presentation on Mad Money and the next day the stock can move up or down real fast, but then it kind of settles back into its prior price range.

**BG:** Now you said you use a lot of daily or current information. How does that come into play with a long-term strategy.

**GP:** Well, I have a premise when I get into a company or a client, as to what I think it is and where its going, and I just use the short-term stuff to make sure its reinforcing what I've thought all along, or maybe its not. Maybe I really thought this company was going

to do this or that. One little thing one day would not sway me one way or another, but if I start seeing a pattern of things cropping up and the stock is dropping off and I can see why this is happening, if I can put together a string of short-term news on it, then that could sway me to get in or out of a stock. What you can't do, is do a true buy-and-hold strategy. By that I mean, buy and forget about it. You can't just stick your head in the sand like an ostrich and say "Well, I bought ABC company, and I'm going to die with ABC company." You can't do that, because you'd be holding on to WorldComs and Enrons and all those other things. Sometimes events happen and you can see the handwriting on the wall, and even though you have a loss, something's better than nothing, get out of it and move on, but never look back.

**BG:** What advice would you give to a new or novice independent investor?

**GP:** A novice investor? Well, before you start doing any investing at all, you have really got to think about what I've mentioned before: What are your levels of risk you're willing to assume, and what are your time horizons for what you're trying to get out of your investments. You've got to at least put those together and then that kind of person decides as to which type of investment strategy you're looking for. If you're the type of person who is extremely worried about daily fluctuations in the market, [if you] can't sleep at night, and, worst of all, all of those things, plus you don't even understand what's going on in the market, then you should not be in the market. And really those kind of people come in here and I say "Look, there's nothing I can really do for you, based on what you're telling me, go to the bank and shop around for your best CD rates, or go and buy treasuries, because that's the kind of person you're telling me you are. And if I try to do anything or recommend anything different, you're going to be very upset with me down the road." Because all of a sudden some bomb goes off somewhere and the market's down for two months straight 20 or 30%, which has happened. They're not going to be too happy with me. On the other hand, if you say "I understand the market. I understand it can go up or down or vice versa. I know events can shake the market on a short-term basis but I think that's the best place to be for a 15-20 year time horizon." Then we need to talk at that point, about what kinds of strategies to invest in. If a first time investor has under \$100,000 to invest, I'm going to recommend mutual funds. Simply because they don't have enough money to spread this risk in individual stocks. Basically, at stock prices today, if you only have \$100,000, you can only get 10-15 stocks. That's not enough. You cannot spread your risk, you cannot diversify among industries and sectors with only that short number of stocks. You've got to have more than that. I have clients with 100 stocks in one portfolio. You can get carried away, I'm not saying the more the better, because you've got to be able to manage these things too. Under \$100,000 you're better off diversifying in well-rated, good track record mutual funds of different types. Some could have some bonds in them, foreign stocks, domestic stocks, big stocks, little stocks, you can get into stock sectors of the market. But now with a mutual fund you can get instant diversification, because that fund has probably hundreds of stocks in it. So that's what I would tell a first time investor. I do have some clients that are in that boat. They come in, they're under \$100,000 and I tell them "Look, we're going to go [with] mutual funds here." We still have the conversation [about] risk tolerance, timeframe, that type of stuff. [We'll] come up with a model and I'll say

“We’re going to do maybe five or six mutual funds.” They’ll all be excellent funds; there’s absolutely nothing wrong with that strategy. As a matter of fact, you can do very well because you have professional management going on at that level of a mutual fund. Otherwise if you’re picking individuals, I am that manager and the only manager at that point, because I’m picking individual stocks.

**BG:** That’s all the questions we have.

**AP:** Thank you very much, you were very helpful and informative.

**GP:** You’re welcome. You know, I’m not a broker. I don’t even know if you know what I do.

**AP:** Not too a large extent.

**GP:** I am not a stock broker, I do not get any commissions at all. What I am is a money manager. I have series 65 license from the state of Connecticut. It’s a license for a registered investment advisor. That then enables me to buy and sell securities for clients, but they are doing the buying and selling. I am directing them, that’s all I’m doing. I say, “In your name, you buy this, you sell that,” but I get nothing out of it, other than the fee that they pay me to manage their money. [Its] strictly fee based. Frankly, that’s where I think the future is. Working for a brokerage house on a commission basis [is a] dying thing. The money to be made is in fee-based management. That’s where its at, where you get a percentage. The clients like it too because I’m 100% independent. I don’t owe anybody anything. I’m not affiliated with any brokerage firm. Fidelity I use because I have to buy and sell somewhere, but all the moneys are held in Fidelity simply as a custodial service. You don’t have to own a single Fidelity mutual fund. You can buy their funds, [or] you can buy anybody’s funds. [You can] buy any stock or bond that’s out there through Fidelity. They simply do the execution. They get a little commission because somebody’s got to get a commission for the buying and selling, it doesn’t go to me it goes to Fidelity. They hold all the client moneys and clients’ names in their accounts at Fidelity, but they can move it any time they want. They can go to Merrill-Lynch, they can go to ‘Joe Blow’ down the street if they want. But I’m 100% independent. As their money grows, so does my fee grow, so we’re both on the same page. As opposed to some broker for some big mutual fund house or some brokerage firm, you kind of hope he’s doing the right thing for you, but I’ll tell you there’s been a lot of abuse and bad stuff that’s happened in the last couple years in those areas, where things have been bought and sold for customers and they haven’t always been the best things for the customers but they’re the best things for the brokers because they pay them big fat commissions. You have to watch out for that kind of stuff. Anything else I answer for you?

**AP:** I think that’s it.

**GP:** [Let me] think if there’s anything else you should know. That’s the business model I operate under. It’s a growing thing. If you read some of the professional literature in

that area, for financial management and financial planning and stuff you'll see that its all going fee based. Clients basically come in and say "Look, Gary, here's X number of dollars, earn me some money." Its all their money, its in their accounts, I simply have the authority in those accounts to do orders, buys and sells. I'm regulated by the state of Connecticut department of banking too, so they're entitled to walk in that door at any time and say "Let me see all your stuff," and you better have all the required documents on file. They very heavily regulate and slap fines on people, very big fines, very readily. I've already been audited once, a walk-in. A lady just walked in one day and said "I'm here from the state banking commission. Do you know why I'm here?" I said, "Yup," and we spent all day looking through files. Nothing else I can answer for you?

**BG:** I don't think so.

**GP:** Well, good luck with your project and if I can help you out with anything else let me know.



## Appendix C

### Top/Worst Industry Performers

<b>10 Best Performing Industries (1/05-1-06)</b>	
	Percent Change
DJ US Coal Index	102.04%
DJ US Exploration & Production Index	81.25%
DJ US General Mining Index	69.42%
DJ US Oil Equipment & Services Index	69.34%
DJ US Oil Equipment & Services & Distribution Index	64.96%
DJ US Mining Index	64.57%
DJ US Heavy Construction Index	59.95%
DJ US Internet Index	59.55%
DJ US Water Index	56.42%
DJ US Nonferrous Metals Index	55.41%
<b>10 Worst Industries (1/05-1/06)</b>	
	Percent Change
DJ US Automobiles Index	-34.43%
DJ US Industrial Machinery Index	-30.96%
DJ US Automobiles & Parts Index	-23.80%
DJ US Paper Index	-16.14%
DJ US Mortgage Finance Index	-13.81%
DJ US Travel & Tourism Index	-12.63%
DJ US Recreational Products Index	-11.71%
DJ US Auto Parts Index	-11.45%
DJ US Brewers Index	-10.46%
DJ US Forestry & Paper Index	-10.23%

Source: [www.bigcharts.com](http://www.bigcharts.com)

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