MICHIGAN

# Ross School of Business at the University of Michigan Independent Study Project Report 

| TERM | : Summer 1999 |
| :--- | :--- |
| COURSE | $:$ BA 399 |
| PROFESSOR | $:$ Joseph Brockbank |
| STUDENT | $:$ Robbie Reid |
| TITLE | $:$ Investment analysis, strategy, and intangibles that affect investing |

## ROBBIE REID

A research paper submitted in fulfillment of the requirements for three credits UNDERGRADUATE INDEPENDENT RESEARCH PROJECT Summer Term 1999, Professor Brockbank, Faculty Supervisor.

## Investment Analysis

In the complex, growing world of investments today there are several criteria to consider when developing a portfolio strategy. The following items should be thought out beforehand and given apportioned weight according to the unique individual who is actually investing:

1) The most important step is setting goals to specifically decide what your reasons are for investing. Goals are generally set for short-term, such as an upcoming vacation, college tuition, or down payment on a house. Goals can also be intermediateterm, usually eight to 10 years away. Retirement or a college education might fell into this category. Lastly, your goals can be very long-term in nature. You want to be prepared for your retirement so you can travel and enjoy life, or you want to bequeath your personal wealth to the rest of your family. The goal-setting process may be like the following:
A. List your top three or four investment goals. Think short, intermediate, and long-term. Make time to discuss this critical issue with your spouse.
B. Create a timeline for achieving your goals. It needn't be tremendously precise, but it should reflect your basic expectations about the direction and tone of your life. No investor, no matter how savvy, can predict with accuracy interest, inflation, taxes, or most of the other factors that influence the future value of your investments- so recognize the need for some flexibility in your timeline.
C. Calculate the return you'll require to meet those goals. If you're working with one of the financial packages... it'll be worthwhile to play with the tools for calculating investment returns, as well as the tools that assist in planning for retirement needs. (Gold, 57-58)
2) Immediately following the goal-setting process is assessing your individual risk tolerance. "Investors in adaptable periods of their lives are better able to tolerate risk than those who are in less flexible situations. Your tolerance for risk is also affected by your personaUty and beliefs about risk-taking." (Gold, 59) There is no perfectly right or wrong
answer other than being true to your own beliefs and your unique set of responsibilities (see Appx.l).
3) When investing you may consider whether or not tax-free municipal securities or certain kinds of federal debt instruments are right for you. These generally give lower yields, which is why they can be tax-free. After determining which tax bracket you fall under, you can figure the effective rate of return on your future investment. Now you can compare this effective rate to the market rate for taxable securities, and go with the one that will ultimately pay you the most ${ }^{1}$.
4) Ethical investing is also a major concern to some investors. Many people feel a social responsibility to only invest in stocks whose mission is in accordance with, or at least falls somewhere within their moral belief system. "These investors are looking for investment vehicles that further their social agenda. Their concerns range from environmental issues- they refuse to lend financial support to polluters or strip miners- to political matters to social problems. (Gold, 73)
5) There are certain types of fundamentals you should be acquainted with in order to be an educated and savvy investor in today's market:

- the opportunity cost of having your money somewhere else. Could you be doing better somewhere else?
- the earnings of a particular company. Earnings are the bottom line, the profits of a company after taking out dividends and taxes. Earnings per share are the number of shares outstanding divided into the earnings.

[^0]- the current dividend yield of a company. A company may take a certain amount of cash and pay the stockholders: "Example: a stock is at \$30 and \$2 (annual equivalent) is to be paid-that would be a $6.66 \%$ return."
- the book value of a company: "It is the dollar amount you get when you subtract all the liabilities (including preferred stock) from the assets. This figure then could be divided by the number of shares outstanding and get the value per share."
- the equity returns. "Return on stock equity is the company's after tax profits divided by the book value. The important thing here is to see if this return is increasing from year to year
- the debt ratio of a company. "This ratio shows the percentage of debt a company has in relationship to shareholder equity. You want this to be low." (Cook, SMM, 66-80) (See appx. 3 for other good financial analysis tools)


## Market Simulation

Sandbox Business conducts a market simulation game starting and ending every month under the title of "Final Bell." Each player is given 100,000 market bucks with which to play the stock market. It is to be used as a tool to learn the market by making the trades you would realistically make. The advantage is that although the game tracks your portfolio and how many bucks you have won, no real money is at risk.

My philosophy going into the game, with little knowledge about the market was simple:

1) Develop a short-term, high-risk strategy to invest in highly volatile stocks to make as much money as possible in the brief July period. Also, there was no real risk of losing actual money, so the more risk the better I reasoned. This takes into account my personal high risk tolerance based on my age, family status, and personality (fiscal maverick), among other things (see Appx. 1).
2) Diversify with at least eight different stocks from several different industries to mitigate a certain amount of risk, and investing more heavily in attractive stocks based on research, volatility, and investment advice. I learned that, "if you want to get a
measure of how much you should diversify, the magic number is eight. Work toward a portfolio large enough that you can spread your investments among eight vehicles in eight industries. The investments need not be divided equally, of course. Invest more heavily in the places your research finds more attractive." (Gold, 70)

The following is a list of the transactions I made, stocks I invested in, with summaries and information on the individual companies and the industries that they come from:

- On July 10 I bought 100 shares of AOL stock based on its upward potential for growth and its inherent volatility. "America Online is the largest provider of Internet/Online services, with more than 17 million members worldwide. Many of AOL's opportunities stem from the rapid blending of the online and Internet worlds..." AOL had strong market share versus its competitors, with over 55\% of the Internet/Online services market. They had completed their acquisition of Netscape to expand advertising, content, and commerce to their sites. This may also increase AOL's share in the daytime office usage market. They continued their expansion by acquiring Mirabilis (ICQ), with its wide base of international users. AOL "ended its most recent quarter with over 1.2 million modems in its network, with usage peaking at 1.1 million simultaneous users. This is up from just 775,000 modems and 679,000 simultaneous users for the same period a year ago." AOL also possesses solid assets to differentiate itself from the competitors. They have an amazingly large subscriber base, the capacity for vast programming and web-site content, and a "proven track record as an effective e-commerce partner (large renewal deals include First USA/\$500 million over five years deal, eBay, $\$ 75$ million over four years, and so on)."

AOL competes in a highly competitive technological world with companies such as Microsoft, Yahoo!, and Disney which makes this a volatile and sensitive market to be in. However, "AOL continues to execute its strategy of balancing growth with profitability, while building a globally dominant brand and market share position.... It is important to highlight that management is likely to reinvest upside into areas of long-term strategic importance, such as broadband access and content development." (Goldman, Sachs U.S. Research)

- July 12- Bought 100 more shares of America Online (AOL).
- July 12- Bought 110 shares of Yahoo! (YHOO), justified by my aggressive approach and the highly volatile and potential upside to this industry, as well as the "hot" nature of this stock. Yahoo! "is a global Internet Media company that offers a branded network of comprehensive information, communication and shopping services to millions of users daily." Recent financial results reflect an "increasing number of advertisers purchasing space on the Co.'s online media properties and higher investment income." (Yahoo.com Market Guide business summary)
- July 12- Bought 100 shares of Providian Financial (PVN), a credit card company, which was selling at about a $30-40 \%$ discount. This began some industry diversification away from the Internet industry. Providian "is one of the country's most dynamic financial service providers, with projected 3-5 year EPS growth of 50\% or more and asset returns nearly double the industry average.... Providian is now the 9th largest Visa/Mastercard issuer and should continue to outpace the market's growth through internal account generation and selective acquisitions." Research shows that Providian's success was based upon five key assets:
(1) advanced and proprietary technology that unites marketing, customer service, and risk management on a flexible, information-driven platform; (2) the ability to "microsegment" its borrower base, which allows for highly efficient account acquisition and improves customer loyalty over the longer term; (3) a culture of continuous reinvestment in marketing and product development; (4) exceptionally good earning quality as a result of conservative reserving and accounting standards; and (5) a nearly ideal size such that the new products can produce real growth over a relatively small base.

Providian has also continuously experimented with product improvement and improvements in their distribution channels. This has enabled them to grow through segmenting the market further. "For example, by leveraging its secured card product, the company is now enjoying tremendous profitability in the Visa Classic business, which grows partly by "graduating" secured cardholders into unsecured or partiallysecured, fee-intensive accounts. Over time, ... Providian's borrower base will span the entire credit spectrum." In the past year Providian has also announced new growth initiatives. They have announced a bad debt collections business called "First Select" with $\$ 500$ million already in agreements. Providian also recently purchased GetSmart.Com which matches buyers and third-party lenders, and looks to be well suited for the opportunities and challenges of the Internet business. Providian's credit outlook is also good considering their delinquency ratio at about the $4.20 \%-4.60 \%$ range. One of Providian's "intangible" strengths is their "highly regarded, experienced management team. Senior management, led by Shailesh J. Mehta, Providian's longtime chief executive officer, is innovative, highly motivated, and is among the most well-regarded in the consumer lending business... A stable team with experience in aE phases of consumer banking, ten key senior executives have been with Providian for more than ten years."

Providian sees a few key factors as potential risks: "consumer debt, bankruptcy rates, and increasingly intense industry competition." (Goldman, Sachs U.S. Research)

- July 12-Bought 200 shares of Williams Co. (WMB), an energy/telecommunications company looking to spin off their communications arm, which presents opportunities for huge upside growth and short term potential. They have over $\$ 18$ billion in assets. "Williams owns five major natural gas pipelines and energy businesses involved in gathering and processing, marketing and trading, petroleum services, and E\&P." They are currently developing a fiber optic network which is to be completed by the end of 2000. Williams has a very strategic alliance with SBC Communications, which will also help growth in the years to come; "Williams has indicated that the SBC contract layered on top of the company's existing book of business would yield a $24 \%$ return on invested capital." Although the past two years Williams has posted less than impressive results in both the energy and telecommunications industries, they now "appear well positioned to generate strong recovery and growth in future years, even if results appear likely to remain relatively weak in 1999 with still-depressed energy market conditions and startup costs on the network." Also, "new investments, aggressive cost cutting and a modest recovery in commodity prices during the later half of the year will drive Energy Services' recurring earnings 17\% higher in 1999." Williams has managed their core group of pipelines well and the pipelines Return on Equity of $15.6 \%$ placed them very high in the industry. Another strength has been Williams \$250 million international energy investments in Brazil and Australia which will aid in future growth and profit for the company. Three significant risks loom, however, for Williams. First, the energy division is highly volatile and swings similarly
with the entire energy market. Secondly, technological advances in the telecommunications industry could create an excess of supply which would severely hurt Williams. Lastly, the company is highly leveraged which could restrict future growth. (Goldman, Sachs U.S. Research)

July 12- Bought 300 shares of Waste Management, Inc. (WMI), which had just missed its earnings projections and were subsequently selling at about a $50 \%$ discount. This waste management company served to again diversify across industries for portfolio risk mitigation, and looked to be a quick rebounder and money maker. Overzealous revenue targets were blamed for the company's shortfall and the strategic outlook now looks favorable. Management appears to be poised and positioned with plans to grow the company; "The board and newly formed executive committee appear to be taking a very proactive stance towards enhancing shareholder value, mostly in their review of strategic alternatives that include a possible share repurchase plan. ${ }^{9}$ WMI will probably reduce their debt levels and sale some assets, possibly their international business to help the rebounding company. (Goldman, Sachs Investment Research) July 12- Bought 250 sharesof Dell ccomputers (DELL) selling down at around 43 from 55. Dell "is the world's leading direct computer systems company with revenue of $\$ 16.8$ billion for the last four quarters. With more than 23,000 employees around the globe, Dell is the number-two and fastest growing among all major computer systems companies worldwide. Dell is the number-two U.S. manufacturer, and it is a leading supplier of PC's to U.S. business customers, government agencies, educational institutions, and consumers. ${ }^{95}$ No competitor has been able to outperform Dell in the direct market: "Its ability to replicate this success in the notebook, workstation, and
entry-level server space is further evidence of Dell's second-mover advantages in the open-systems market." They also have a great track record, balance sheet and are the lowest-cost provider in the industry. Projections indicate that "Dell will outgrow the balance of the market by almost a factor often. This is staggering considering (1) the broader PC market has experienced decelerating unit growth since 1995, (2) the market has become more competitive as it consolidates around the top tier, and (3) Dell comparisons are becoming increasingly difficult." Dell will continue to be aggressive and use its economies of scale to pass on cost savings to customers. There will also be opportunities for Dell to expand internationally and do in other markets what it has done in the U.S. Dell has also reached strategic agreements with Clarion, and Network Appliance, both storage vendors, expanding the company. "Dell's Internet sales currently average more than $\$ 10$ million per day - a $\$ 3.6$ billion run rate... the Internet will allow Dell to reduce total cost of ownership by making available online user manuals, FAQs, and,... customer-specific information." Dell has also been user-friendly in helping customers with system installation and management, as well as other services. Not to mention that the computers are of course designed to the company or individual making the purchase. Dell's risk is in their future execution by management: "The gap between the direct and indirect vendors as defined today has likely peaked. The challenge for Dell is to find and dictate the next competitive advantage (most likely customer acquisition/control) and implement a strategy to capture it before the competition." (Goldman, Sachs U.S. Research)

- July 12- Bought 180 shares of Charles Schwab (SCH), a growth stock trading at 53 down from 77. "The Charles Schwab Corporation is one of the largest independent
publicly traded distributors of mutual funds in the United States as well as the leading discount broker. The company services 5.9 million active customer accounts through 298 branches situated in 48 states, Puerto Rico, and the United Kingdom." Its customer assets rose 45 -fold from $\$ 11$ billion in 1986 to $\$ 491$ billion in 1998 ! "Schwab has effectively positioned itself to take advantage of the key trends currently shaping the financial services sector, including the migration to the online channel for stock trading, the disintermediation from bank deposits to mutual funds and equity/fixed income portfolios, and the rise of a customer base willing to pay for a superior and reliable service." Schwab has benefited from rapidly growing commission revenues and the amazing growth of OneSource. "Started from scratch in 1992, OneSource is Schwab's high-profile mutual fund supermarket, with $\$ 73$ billion in assets." OneSource looks to keep growing. Schwab has created a great base of products: "Through its retail focus and reliance on technology, Schwab has positioned itself as one of the dominant firms in the financial services industry.... Approximately $40 \%$ of Schwab's revenues are non-trading related, providing a stable cushion for earnings should exchange volumes subside.... The superior growth generated by Schwab over the next 3-5 years, its excellent position as a full-service financial services company and its dominant presence through the Internet channel indicate significant upside," A prolonged bear market looks to be the greatest risk for Schwab as trading commissions would significantly drop as trading volume decreases. Mutual fund fees would also be hurt. (Goldman, Sachs U.S. Research)

July 12- Bought 120 shares of Intel (INTC), another volatile stock with high potential the "Company was founded in 1968 to build semiconductor memory products. It has
been more than 25 years since Intel introduced the world's first microprocessor, making technological history. The computer and Internet revolution that this technology enabled has changed the world. Today, Intel supplies the computing industry with the chips, boards, systems and software that are the "ingredients" of computer architecture. These products are used by industry members to create advanced computing systems. Intel's mission is to be the building block supplier to the Internet economy." (Intel.com) Intel currently controls about 80\% of the microprocessor market. "The world's \#1 chip maker, Intel makes microprocessors -including the powerful Pentium and the low-end Celeron - that have provided the brains for IBM-compatible PCs since 1981. Compaq, Intel's largest customer. accounts for $13 \%$ of sales; Dell Computer accounts for 11\%. Intel's chips (including microcontrollers and flash memories) are also used in products for communications, industrial equipment, and the military. The company is making a big push into networking services and communications infrastructure products." (Hoovers.com)

## Results and lessons learned

The entire stock market took a dip in the month of July, directly corresponding to the market simulation game. As the month went by, I continued to stick with the initial stocks that I picked for one simple reason- if the market did rebound these stocks would still be the ones I wanted and their price volatility would hopefully send them soaring upward. Sometimes you can outguess yourself and not stay with stock winners long enough, but jump on and off the band wagon before waiting for the bump in the road to pass: "The key here is to decide in advance to have the discipline to ride through volatile markets, to avoid making emotional decisions about market timing." (Gold, 71) This
philosophy more than not holds true in the long-run, but I should have played more of a momentum game, and closely picked the few stocks that were probably doing well.

One problem was that the market downturn did not recover until after the simulation for July was finished, and I had to live with my losses. From the nearly $\$ 100,000$ invested, I finished with a disappointing $\$ 89.000$. This proves to me several important points about investing:

1. No matter how brilliant you are about predicting the market, finding the next great stock, etc., you have to be investing for the long-term or you may be hurt. "By keeping a long-term perspective--... 10 years or more-you allow time to overcome the short-term whims of the market." I lost about $\$ 11,000$ for the month, not that the stocks weren't great (I was overweight in the technological industry which in fact has done very well), but the entire market took a turn for the worse in the three week span I was invested, and I suffered the consequences. Plus, riskier investments like mine may become safer over a longer period of time as the volatile up and down movement of the stock evens out to a steady return: "Time mitigates most risk." (Gold, 71) If I would have been able to stick with these same stocks as the market rebounded the subsequent following months, I would have made my money back and more: "The stock market always rises, given sufficient time." (Gold, 71)
2. I needed to set and have goals and know what more what I wanted the big picture to look like before I began investing. This holds true with investing in general, or with any specific investment play, to achieve the best results (see above for goal summary). You also have to know how you want to play the smaller short-term and intermediate steps along the way. How you are going to draw the picture, and with
what tools. Wade Cook, financial guru, had this to say, "No one knows what the picture will look like. You can draw it yourself, but you should also know what you want it to look like before you start drawing. Stay a step ahead by knowing what your investments will do for you.... You've got to know your exit before you go in the entrance!" (Cook, SMM, 125) I failed to do this in the simulation. I did not know how far I was going to let a stock drop before I dumped it. I did not know how much I was going to make on a stock before I sold it, and generally did not have a thorough step-by-step plan to achieve the results I wanted. So when almost all my stocks went down, I did not have any other plan than to stick with them and hope that they rebounded.
3. In a short-term setting you have to pay extra attention to the market. There may be hot stocks that recently have released good financial results, or are spinning off a division of the company, or have announced new products, or stock splits, all of which will generally produce a quick upward move in the stock price. You can capitalize on these if you keep a close eye on the market and become a momentum trader as certain stocks or industries are hot. In fact, recent news may be more important for quick and short-term gains, than the true business health and future of the company.

## Personal stock investment theories and the emerging rote of intangibles

Brian Broadbent, a vice president in private client services for Goldman Sachs, summarized his personal investment theory as more aggressive than the portfolios he actively manages given his higher risk tolerance because of his age. Still, however, he wants to keep a portfolio for at least 3 yearsto get growth. He holds fewer positions
investing in only $10-12$ stocks in a portfolio and trades on margin. Margin trading is essentially only putting up front a certain percentage of money required for your investment and receiving a loan from the financial institution you are dealing with. This is generally about $50 \%$, more or less depending on your personal account history and the faith of your institution to back your investments. So if I want to purchase $\$ 10,000$ worth of stock, I may only have to invest $\$ 5,000$ of my actual money, enabling me to leverage my funds and make more money ${ }^{2}$. With Broadbent's own accounts and also those he manages there are similarities: he is looking to invest for at least a three year time frame to get growth, investing in different asset classes. He wants quality world-class franchise companies that look to have good growth, so he can buy and holdrpossibly for 15 years or more!

Randy Reid, a former analyst at Goldman Sachs, now at Harvard business school, gave his thoughts on stock investment theories. The most important question was, "Who are you investing for?" When managing other people's portfolios he noted his fiduciary responsibility playing a role because he was dealing with someone else's money, and this made a difference in risk tolerance, generally lowering the level of risk he wanted (See appx. 4 for other types of risk). He stated that the individuals he worked with are already wealthy, and have come from making a great living in the highly volatile and risky business environment, possibly over the course of their whole lives. These wealthy individuals are interested in the preservation and solid management of their wealth. They are looking for capital appreciation and preservation over a given period of time, consistent with their

[^1]objectives. They are also looking for after-tax effective long-term gain which have lower turnovers. This longer-term capital gain philosophy affects the securities you invest in, as well as your asset mix. Reid cited this philosophy as different from his own personal management, which is concentrated on building wealth. They have different time horizons and risk characteristics. Reid is younger, and has an inordinate amount of time to accumulate his wealth, thus he has a higher level of risk. Because of this higher risk tolerance, he is overweight investing in equities and also certain sectors like financials, which he pointed out he has done very well in, and also the volatile technological sector. However, he still practices bottom-up fundamental analysis to coal and assess good prospective companies.

Recently, some research has shown that corporate earnings increasingly predict a lower percentage of a firm's stock value. What does increasingly predict stock value is something called "intangibles." Reid does not believe this to be true: "Earnings have always and will always drive growth of the market." However, he does point out that there is a current increased valuation bubble, driven by other factors. Reid points out companies like Yahoo! and Amazon.com, extremely overvalued given historical and fundamental analysis, as seen by their $\mathrm{P} / \mathrm{E}$ multiples, $\$ 30$ billion companies with no positive cash flow. Broadbent does not necessarily agree that intangibles are playing a bigger role, either. He buys companies that "make money." He looks at bottom-line earnings. He argued that great managers, one suggested intangible, have left from one company to another and have not produced. He cited Ai Dunlop, a great manager known for his cost-cutting and customer-value-adding skills, who went from a prestigious paper company to Sunbeam. The stock subsequently rallied $100 \%$ after his move. However, in
the long-run he couldn't produce the same kind of earnings at Sunbeam that he had before.

Reid looks to a possible cause for the current valuation of stocks. He noted the ease and accessibility that retail investors and online traders have to the capital market, which is different from the past, and that these investors have more of an influence on the valuation of stock. Is the market more volatile because of this new breed of investors, Reid believes it is. He likens this new breed of investors to sheep and traditional analysts as the wolves. There are now more sheep than ever. "Are sheep driving the herd?" he asks. Possibly seems to be the best answer. However, over a longer period of time the wolves may have the advantage because they have access to more sophisticated forms of financial analysis across the board, as well as generally being more educated about the market. As Reid related, in the risk-arbitrage game, in order to capitalize the wolves are looking for the sheep. He also noted with the proliferation of stock options as incentives and also as a tool for growth, the quality of earnings and accounting has decreased. It has become tougher to use the same old financial models.

Identifying these so called "intangibles" that are playing an increasing role in the current market valuations can be very difficult. Broadbent still analyzes a company from the bottom up, as stated before. Reid agrees, adding that investors should constantly be aware of management's goals and direction. Broadbent looks for companies with hard to duplicate advantages, or with some monopoly power in the marketplace, such as Microsoft, Reid believes the key to being a successful investor lies with knowledge. He stated that a keen understanding of accounting principles leads to a true knowledge of a company's earnings quality. Also an understanding of the industry a particular company is
in, and applying Porter's Five Forces Model (Appx. 2) to assess strategic advantages. Reid thinks that value investors have been killed in the market because their understanding of traditional market fundamentals has led them to resist the current paradigm shift in the marketplace. These investors have subsequently been unwilling to adopt to any new financial models.

So what is the current marketplace calling for? Reid believes momentum investors are capitalizing on swings in the market, as well as capturing profits from the hot stocks. They are utilizing good market timing and investing overweight in sectors overperforming, such as the technological sector of the market. Thus, they have had the right asset/allocation mix, not necessarily for the long-run, but to capitalize on the market now. Reid suggests that a great play in the market now is to invest in an index fund, given the current volatility resulting difficulty in identifying and assessing a company's quality earnings stream. He also pointed out the enormous gains index funds have posted over the past 10 years. He cites the fact $86 \%$ of managed portfolios have underperformed the S\&P 500 recently. So you have a better chance making money in a more stable fund such as the index fund, than simply relying on an analyst to manage your portfolio now. The market is currently under a degree of change, but Reid still believes one must come back to the classic Warren Buffet long-term model for buying companies and their managements: "Buffet buys and holds. He rejects the "efficient market theory"; he doesn't worry about the stock market; and he buys a business not a stock."
(Barnesandnoble.com, Publishers Weekly Review) At the core Reid agrees you are still buying a company and their stream of earnings. Plus you are investing in that company's
ability to generate positive returns for stockholders, whether or not the market is overvalued, disregarding the "efficient market theory," as Buffet suggests.

## Personal Stock Investment Theory

Considering my current risk profile, I place myself in one of the highest risk tolerance levels. I am a young man with a longer-term investment horizon than most people investing. I also consider myself a fiscal maverick willing to take risks. I have no family dependents that I need to support, so I can risk the discretionary funds I have available to invest without much worry. With my high risk profile in mind, I want the ability to make a lot of money out of a little start, and to be able to do this fast. The best way I have found to do this is to play the very risky game of the stock option market: "An option to purchase stock is the right (not the obligation) to buy or sell a particular stock on or before a certain date, called the expiration date." This is a great way to leverage your money because it affords you the opportunity to control a much larger block of stocks than if you had just bought the actual shares. "Options are derivatives. A derivative is an investment made on an underlying investment.... There are two types of stock options. One is called a "call" which gives the investor the right to buy a particular stock and the other is a "put" which gives the investor the right to sell a stock." (Cook, WSMM, 59-60) Options always come in 100 share contracts. So if I was buying two options I would be purchasing the rights to 200 shares.

When you buy a call, you are hoping that the stock price will go up, not necessarily that the option will go up by the same amount, but that the option will go up, hopefully even more relative to the stock. The stock market and the option market, then, are really two different markets: the actual market for the stock, and the options market.

Generally, however, there is a pretty close relationship in the movement of the two
markets: "The main reason for investing in options is embodied in this next sentence:
When there is a small movement in the stock, there is a magnified movement in the option." You can see this is true with the following example:

| FORD $(\mathrm{F})$ | STRIKE PRICE $\$ 30.00$ |  |
| :--- | :--- | :--- |
| Ford is currently (June) | STOCK | OPTION |
| \$26, the October option | $\$ 26.00$ | $\$ 0.75$ |
| for a \$30 strike price was | $\$ 28.00$ | $\$ 1.50$ |
| 750 when purchased. | $\$ 30.00$ | $\$ 2.25$ |
|  | $\$ 32.00$ | $\$ 4.00$ |
|  | $\$ 33.00$ | $\$ 5.00$ |
|  | $\$ 35.00$ | $\$ \mathbf{6 . 5 0}$ |

(Cook, WSMM, 61)
Let's look at a theoretical play on the current Ford stock and option pricing:
You can see when the stock grows from $\$ 26$ to $\$ 28$ the option has gone from 75 c to $\$ 1.50$. Think about this: the stock has gone up about $8 \%$ but the option has doubled in price. Additionally, when the stock goes from $\$ 28$ to $\$ 30$ it goes up about another $8 \%$, the option goes up another 750 . This 750 reflects a tripling of the money from the 75 c price to the $\$ 2.25$ price. If you had purchased 1,000 shares of Ford stock, you would have paid $\$ 26,000$. If you had a margin account, you could get the same 1,000 shares by only putting up one half the cash or $\$ 13,000$. However, if you purchase 10 contracts (remember, each contract constitutes 100 shares) at our original price of 750 you could purchase 10 contracts at $\$ 75$ each, making the total cost $\$ 750$. You would still control the same amount of stock, or 1,000 shares for $\$ 750 \ldots$ you still control a large amount of stock with a small amount of money.
(Cook, WSMM, 62-63)
This example clearly shows that with a small amount of money invested, I can make a much higher return on my money. Instead of paying $\$ 26,000$, Iwould have only invested $\$ 750$, plus the magnified movement in the option price means that I could
potentially make triple what I invested, or more! It's almost like a stock market secret that I'm surprised more people have not researched and practiced.

Options ${ }^{3}$ have an expiration date which makes them very risky ${ }^{4}$. They are known as "fixed time investments ${ }^{5}$." In other words, if I buy a stock option one month away, and the price of the stock doesn't very much, then my option will expire and I will lose my investment: "Only 15-20\% of all options ever get exercised-which means there are a lot of gamblers out there betting a stock is going to go either up or go down-gamblers who are losing their bets." (Cook, WSMM, 63)

There are five very good strategies that financial guru Wade Cook uses to avoid loss in the options market:

1. NEWS. I act on good news.... When I hear about a company taking over another company, or mergers and acquisitions going on, or a company selling off a division, or a company doing a stock split... that is the time to act on the news. I usually act close to the strike price.
2. THE PERCENT-TO-DOUBLE RULE... What this means is, what percentage movement in the stock is necessary for you to double your money on your option... it is nice to know, if you want to double your money in your options, what kind of movement you need in the stock.... I like t see about 6$10 \%$-to-double options.... I like the formula, because, basically, the stock only has to go up $6 \%$ for me to double my money in the option.
3. 50 PERCENT RULE. When buying "in the money" options we employ this rule.... To calculate this rate, you simply take the amount of the option that is time value, and divide by the price of the option.... My strategy is to make sure the time value is not more than $50 \%$ of the option value.

[^2]4. DELTA FORMULA. One way to stay out of trouble with options is to make sure there will be a good relationship between the movement of the option and the movement of the stock. This relationship is expressed with the Delta Formula.... As the stock moves up, the call option moves up. When there is a $\$ 1$ increase in the stock, and it reflects a $\$ 1$ increase in the call option, it is called a Delta of 100 (or $100 \%$ ).... Likewise, if the stock goes up $\$ 1$, and the option goes up 500 , the Delta is 50 , or $50 \% \ldots$. To avoid problems, buy options with a Delta above 60 to $70 \ldots$. Remember, the closer to 100 , the better.
5. STOCK SPLITS... When a company announces a stock split, it is a prime candidate for option purchasing because there is a tendency for the stock to go back up to the original price. (Cook, WSMM. 66-70)

The strategy for buying puts is essentially the opposite of buying calls. When you buy a put you are buying the right to sell a stock at a particular price: "The value of your put option goes up in value as the stock goes down. So the stock goes down to $\$ 20$, your $\$ 1$ option could become worth $\$ 2$. If it goes to $\$ 19$ your option could be $\$ 3$. You could sell your put at this time for $\$ 3$ and make a nice profit of $\$ 2$. If you had purchased 10 contracts that would be a $\$ 2,000$ profit." (Cook, WSMM, 70)

With both calls and puts you can buy and sell them, and combine them on specific plays to make more money. For example, I could buy a call and sell a put, hoping in both circumstances that the price of the stock will go up. If the stock price does go up, then I have capitalized twice on the same play. It obviously gets riskier as you do this as well.

Options are so risky that Cook only suggests using about 5-20\% of your investment money in this way; but again, the return can be incredible: "I have had many months where $15 \%$ of my money in options has made more than all of the other plays together.

Sometimes I wonder why I am not applying $50 \%$ and $75 \%$ of my money to options, but, I would rather have my money in more safe, sane investments, like covered call investing, even though I could make more money by employing more of it in options." (Cook, WSMM, 70)

## References

Cook, Wade B, Stock Market Miracles. Seattle. Washington: Lighthouse Publishing Group. Inc.. 1997.

Cook, Wade B. Wall Street Money Machine. Seattle, Washington: Lighthouse Publishing Group. Inc.. 1997

Gold, LauraMaery; Post, Dan. Invest Online; Do it yourself and keep more of what you earn. New York: Macmillan Publishing USA, 1997.

Hitt, Michael A.; Ireland, R. Duane; Hoskisson, Robert E.; Pitts, Robert A.; Lei David Corporate Strategy 390 University of Michigan. Cincinnati, Ohio: South-Western College Publishing, 1998.

Goldman, Sachs \& Co. U.S. Research, 1999.
Barnesandnoble.com
Yahoo.com
Intel.com
Hoovers.com

## Appendix 1

| Factors Affecting Your <br> Capacity for Investment Risk | Lower Risk <br> Tolerance | Higher Risk <br> Tolerance <br> Older |
| :--- | :--- | :--- |
| Age | Narrow | Wide |
| Diversification | Low | High |
| Earning Capacitiy | Dependents | No dependents |
| Family Status | Critical | Discretionary |
| Investing Goals | Short term | Long Term |
| Investing Timeline | Low | High |
| Net Worth | Fiscal conservative | Fiscal maverick |
| Personality |  |  |

(Gold, 60)

Appendix 2
Porter's Five Forces Model of Industry Attractiveness

(Hitt, 35)

Appendix 3
Financial Analysis Ratios

| Ratio | Formula | What it Shows |
| :---: | :---: | :---: |
| 1. Return on total assets | Profits after taxes Total Assets | The net return on total investment of the firm |
| 2. Return on stockholders' equity | Profits after taxes <br> Total Stockholders' equity | How effectively the company is utilizing stockholders' funds |
| 3. Debt-to-assets | Total debt <br> Total assets | Leverage used by the firm |
| 4. Total assets turnover | Sales <br> total assets | The effectiveness of the firm in utilizing total assets |
| 5. Dividend yield on common stock | nnual dividends per share <br> Current market price per share | A measure of dividend return to common stockholders |
| 6. Price-earnings ratio | Current market price per share <br> After-tax earnings per share | An indication of market perception of the firm. Usually, the faster-growing or less risky firms tend to have higher PE ratios than slowergrowing or more risky firms. |
| 7. Dividend payout ratio | Annual dividends per share After-tax earnings per share | An indication of dividends paid out as a percentage of profits. |
| 8. Cash flow per share | After-tax profits + depreciation number of common shares outstanding | A measure of total cash per share available for the firm. |


[^0]:    You also want to consider what kind of investment vehicles you'll be using: stocks, bonds, corporate bonds, municipal bonds, government securities, mutual funds, or index funds. There are also alternative investment vehicles such as annuities, certificates of deposits, collectibles, commodities/futures, foreign currencies, international investments, junk bonds, life insurance, money markets, collateralized mortgage obligations (CMOs), options, real estate investment trusts, or zero coupon bonds. As you can see there are so many to choose from that research will probably be necessary to find the right mix and fit for your own individual portfolio. (Gold, 77-94)

[^1]:    ${ }^{2}$ This is a loan and the broker get to choose the collateral (stocks they take). They will also charge interest on the outstanding balance..." (Cook, SMM, 31-31)

[^2]:    3
    "Options start at $\$ 5$ and then Increase in $\$ 2$ JO increments. So the strike prices are $\$ 5, \$ 7.50 \$ 10, \$ 12.50, \ldots$. Once they hit $\$ 25$ dollars they go in $\$ 5$ dollar increments... up to $\$ 200$. At $\$ 200$ they go to $\$ 10$ increments." (Cook, WSMM, 64-65)
    "Options expire at 11:59 AM, Eastern Time (ET) on the Saturday after the thud Friday of the month, Effectively for all of us, that really means 4:00 PM ET on Friday as the stock market and options market close at that time... The expiration month could be any month you choose in which options are written. Options usually exist six and seven months beyond the current month..." (Cook, WSMM, 61-62)
    "Another point: there are two option styles or formats: American Style Options and European Style Options. An American Style Option is an option which can be exercised on or before the expiration date. European Style Options can only be exercised on the expiration date. In the United States we only trade American Style Options." (Cook, WSMM, 65)

