

Investment: A Comparison of Five Popular Strategies

By

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I. ABSTRACT:

We compared five different investment strategies. Though this was a short-term investment (15 week duration) game, our intent here was not to maximize the earnings for the duration of the course, but to follow the five portfolio strategies faithfully and compare the results at the end of the course period, always cognizant of the fact that the course provided a microcosm and a short window of evaluation for a long term strategy. The five portfolios chosen were based on the following: 1. Value Line Aggressive Portfolio; 2. “New America” profiles in the Investor’s Business Daily; 3. Technical Analysis of company charts, as obtained from the Investor’s Business Daily; 4. Local Favorites, also called the Peter Lynch Principle; 5. Mutual Funds with historically outstanding record. We found that judicious selection of the mutual funds (Portfolio 5) outperformed all other strategies, with a return of 15% over 10 weeks, with zero volatility from our point of view. This would have amounted to about 80% return in one year, clearly a very good return, if the trend were to hold up. Value Line and Technical Analysis, Portfolios 1 and 3 respectively, based on the expertise of historically successful models, provided the next best return of 11.7% over the 10 weeks, with a volatility of about 35%. The futuristic portfolio (No. 2) of “New America” companies fared well at 8.5% over the 10 week period, with the “Local Companies” portfolio (No. 4) actually losing money. Both had a volatility of about 100%. We conclude that a typical investor’s money would fare better and be safer in the hands of well-experienced fund managers.

II. METHODS AND PORTFOLIOS:

We briefly describe the portfolios here. See Appendix A for details of different portfolios:

- **Value Line Portfolio:** Value line [Value Line, 1999], in its weekly publication entitled “Investment Survey,” publishes a list of 20 stocks identified as Portfolio

1: Stocks with above-average year-ahead price potential. These have Timeliness ranks of 1 or 2 (out of a scale of 5, with 1 being the best), and Safety ranks of around 3 (out of a scale of 5, with 1 being the safest). These are primarily suitable for more aggressive investors, and have P/E ratios of 20 or higher, Betas of 1 to 2, and financial strengths of about B+. These come from various industries, and thus the portfolio is not focused on a few industries. Value Line has had an exemplary record, in both bull and bear markets, as one of the best returns in the industry, as determined by objective neutral agencies. See Appendix B for brief descriptions of the companies in this category. We invested about \$5,000 in each of the 20 stocks, for a total of \$115 K. The stocks were sold if they dropped below 8% of the purchase price. This is not recommended by Value Line. They recommend that we trade any of the stocks only if Value Line recommends so. If we had followed their suggestion, then we would have had 0% volatility, and perhaps the same return, since some of the stocks we sold did recover and move upwards. The 8% rule comes from the Technical Analysis portfolio mentioned below. However, even there, the rule is only applied in conjunction with many other indicators. Due to lack of time, we just followed a simple rule of selling a stock if it fell below 8%. The only exception was Microsoft, because of the detailed coverage in the news. Ideally, in this portfolio, no trades are to be made, unless Value Line portfolio changes.

- **New America Portfolio:** Every day, Investor's Business Daily (IBD) profiles three companies in this section entitled "New America" [IBD, 1999]. The companies in the Value Line category were typically medium to large cap companies, while the "New America" companies are small cap companies, with potential for significant growth over the next 3 years. Yahoo and AOL, for example, were profiled 2 and 4 years ago, respectively, in this section. These stocks are speculative, with perhaps no proven record of the management, the market, or the products. However, IBD reviews a large number of small companies to select the few that are profiled, and thus much research goes into selecting the few that do get profiled. Clearly, the very fact that most of the stocks went up in price, subsequent to the profiling, shows that this is a viable method of investing. In addition, being small cap, there is higher possibility of their market doubling or trebling in very little time, thus paving the way for significant stock price increase in a very short time. But do note that this window of opportunity can only be realized by holding the stocks for one to two years. A total of 10 stocks were purchased with investments of \$10,000 each.
- **Technical Analysis:** This method is based on a best selling book published by Investor's Business Daily (IBD), entitled "Guide to the Markets" [IBD, 1996]. Chapter 2 in the book covers general market and specific indicators, which are provided on a daily basis in IBD. The investor is expected to evaluate the market trends, industry rankings, and pick the top ten industries (out of a possible 200), on a weekly basis, and pick the leading companies in each of those industries for further analysis. IBD has several proprietary scores that are useful in screening

further. Profitability at a glance is obtained with the EPS rank, with the stocks ranked on a scale of 1 to 99. An EPS rank of 90 implies that the company has produced earning results in the top 10%. Relative Strength is another major parameter that compares a stock's price change over the last 12 months to those of all other stocks. A stock that is going up in price is considered to be a good stock. A relative strength of 90 implies that the company has done better than 90% of the stocks in terms of its price appreciation. A third major parameter that IBD recently introduced is called the SMR rating (Sales + Profit Margin + ROE), with the stocks rated on a letter scale of A to E. A represents the best 20% of the stocks, etc. These three coupled with the industry ranking and the accumulating/distribution (A/D) rating, provide a good basis for screening the stocks. IBD recommends adhering to stocks with EPS and Relative Strengths of 80 or above, with SMR rating of A or B, in industries that are ranked in the top ten, and the A/D rating of A or B. The best return is obtained by timing your purchase to points when the stock is about to take off. Some of the indicators used to identify such a point are: Volume Percent Change; Moving Averages; and Stock price patterns (over a few weeks to months). Such stocks are to be held only so long as their price does not fall more than 8% below the purchase price. One can move up the floor level, to protect the price appreciation already had. IBD provides about 70 stock charts in the daily newspaper. These are potentially the most suitable for further screening. We picked about 24 stocks at investments of \$5,000 each, for a total investment of \$120,000. Though we adjusted the portfolio a few times, we did not make an attempt to keep always the most appropriate set of stocks, as per IBD's set of criteria.

- **Local Companies:** We chose to pursue this strategy based on the well publicized book by Peter Lynch that espouses the concept of putting one's money in local companies that one knows well [Lynch, 1989]. Mr. Lynch was behind the phenomenal success of Fidelity's Magellan fund. As per Mr. Lynch, one should stick to companies that one understands, shops at or interacts with, and that seem to be doing well. Three local stores that made big are: Blockbuster, Office Depot and Home Depot. So, there is much credibility to Lynch's approach. Mr. Lynch, further recommends a thorough analysis of the stock, before it is purchased. We followed his advice to some extent. We purchased several local stocks, irrespective of whether they were well established or upstarts, and traded them if they fell below by 8% or more. At any given time, we had about ten stocks at \$10,000 each. These stocks were not thoroughly checked out based on technical factors. These stocks were, however, bought on some local good news and/or our dialog with employees there. The discipline of selling the stock on downward trend limited the exposure in this group. While a few stocks did well, most stocks in this category did not do well. Most of the local stocks were not Internet related and thus, this was not unexpected.

- **Mutual Funds:** We chose the mutual funds with the best 1 year, 3 year, and 5 year history of returns, as provided in Rukeyser's newsletter [Rukeyser, 1999]. Rukeyser is a well respected anchorman with Public TV's business section. Rukeyser 100, the 100 top mutual funds, based on measurable performance parameters of consistent high returns, over the past 3 months to 5 years, is further strengthened with information on the tenure of the manager (the longer the better) and the mutual funds' stay on the list (the longer the better). We chose 5 such mutual funds, and added the Mathew Korean Fund, based on the fact that the Asian economy was emerging once again. We invested \$14,000 in each of the 6 mutual funds and did not trade them. Though their prices dropped, they never dropped by more than 8%, and thus were never candidates for selling. This particular group did significantly better than others, thus buttressing the argument for leaving the investing to well-seasoned managers.

III. RESULTS:

We provide results in Table 1 (missing at present). Appendix B has the details (also missing at present). The first page in the appendix compares the five strategies. Though we did not strictly adhere to the details of each strategy, we believe that we did follow the strategies fairly closely. Portfolio No. 5, with Mutual Funds, was the best performer at 15.5% return over 10 weeks, with 0% volatility. Portfolios 1 and 3, based respectively on the expertise at Value Line and Investor's Business Daily, performed well at about 11.7%, with a volatility of 35%. Portfolio 2, with companies of future potential, did fairly well, at 8.5% return. However, it was a major responsibility to constantly trade the stocks to keep out poorly performing stocks. The small cap stocks are much more volatile, and one needs a slightly better strategy to cope with the volatility here. The local companies, though they were made up of many large cap companies, performed poorly. The volatility of the portfolio was also high.

IV. DISCUSSION AND CONCLUSIONS:

We wished to use this opportunity to compare and contrast the variety of strategies that had been suggested and that we felt were reasonable and well proven. It was our intent to develop an investment strategy that we felt comfortable with, with regard to risk and return. Most of the Internet stocks did not qualify under any of the five strategies. The exceptions, however, were Schwab and AOL, which were bought later in the game. We do not know whether any of our strategies would have ultimately won against any of the other strategies attempted by the class, if we were to continue to play for a longer duration. However, history is on our side, with regard to both the long-term investment strategy and the specific strategies chosen. Further, the volatility seen in other student accounts, during the last two weeks of the play, when some of the leaders dropped in value by more than 20%, our accounts held up very well, with a drop of only 4%. This, however, does not negate the fact that the leading accounts in the class had built up enormous returns. We believe that this five-way comparison was a worthwhile and productive experience. We now realize that one has to carefully choose the Mutual funds.

Further refinement and implementation of the Value Line and the IBD Technical Analysis can lead to good steady returns. We expect to pursue that in our personal investment strategy.

V. REFERENCES:

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Appendix A: Details of the Five Portfolios

PORTFOLIO 1: Technical Analysis

AAPL: APPLE COMPUTER INC designs, manufactures and markets microprocessor-based personal computers and related personal computing and communicating solutions for sale primarily to education, creative, consumer, business and government customers.

AES: AES CORPORATION is a global power company primarily engaged in developing, owning and operating 118 power generating facilities.

ALSI: ADVANTAGE LEARNING SYSTM is a provider of learning information systems to kindergarten through senior high ('K-12') schools in the U.S. & Canada. Information systems consist of computer software & related training designed to improve student academic performance.

AMGN: AMGEN INC is a Biotechnology company that develops, manufactures and markets human therapeutics based on advanced cellular and molecular biology.

AOL: AMERICA ONLINE INC., is the global leader in the interactive communications and services medium. It has the largest subscriber base of any Internet online service, with approximately 8.6 million members worldwide.

ARMHY: ARM HOLDINGS PLC ADS designs reduced instruction set computer microprocessors that are the driving engines for many medium sized consumer electronics and computer peripherals.

CREE: CREE RESEARCH INC is the world leader in the design, development, manufacture and marketing of silicon carbide based semiconductor materials and electronic devices. It produces compound semiconductors for use in back-lighting, indicator lamps and displays.

EMC: EMC CORP is primarily engaged in the intelligent enterprise storage systems, software and services industry; products store, retrieve, manage, protect and share information from all major computing environments, including UNIX, Windows NT and mainframe platforms.

ENI: ENERSIS SA ADS is a Chilean utility holding Company.

FLEX: FLEXTRONICS INTERNAT LTD is a provider of advanced electronics manufacturing services to original equipment manufacturers in the telecommunications, networking, computer, consumer electronics and medical device industries.

GENZ: GENZYME CORP Biotechnology and health care products company engaged in the development and marketing of specialty therapeutic, surgical and diagnostic products, pharmaceuticals and genetic diagnostic services.

MCN: MCN ENERGY GROUP is a diversified energy holding company for two business groups: Diversified Energy, operating with exploration and production, natural gas gathering, processing, marketing and storage; Gas Distribution, a gas utility serving 1.2 million customers.

MDCC: MOLECULAR DEVICES CORP Designs, develops, manufactures and markets proprietary, high performance, bioanalytical measurement systems, including software and consumables, designed to accelerate and improve the cost effectiveness of the drug discovery and development process.

MNMD: MINIMED INC designs, develops, manufactures and markets advanced micro-infusion systems for delivery of a variety of drugs, with a primary focus on the intensive management of diabetes.

ORCL: ORACLE CORPORATION is a supplier of software products for information management. Products include three categories: Server Technologies, Application Development, and Business Intelligence Tools and Applications.

PBI: PITNEY BOWES INC Sells, rents and leases mailing systems, copying systems, facsimile systems and facilities management services. Mailing systems include postage meters, parcel registers, and mailing machines.

PLXS: PLEXUS CORP., through its subsidiaries, provides product realization services to original equipment manufacturers in the medical, computer, industrial, telecommunications and transportation electronics industries.

SCH: SCHWAB CHARLES CORP Holding company is engaged, through its subsidiaries, in securities brokerage and related investment services for over 4 million active customer accounts.

SLR: SOLECTRON CORP Independent provider of customized manufacturing services to electronics equipment manufacturers (OEMs); provides a wide variety of pre-manufacturing and post-manufacturing services.

SUNW: SUN MICROSYSTEMS INC is a supplier of enterprise network computing products including desktop systems, servers, storage subsystems, network switches, software, microprocessors, and a full range of services and support.

TBH: Telecom Brazil SA Telebra is the largest telecommunication company in Brazil.

TCAT: TCA CABLE TV INC is engaged in the development, acquisition, ownership, operation and management of cable television systems.

THQI: THQ INC Develops and publishes interactive entertainment software used with popular gaming platforms. Has acquired licenses to develop and market software based on movies, TV shows, sports and entertainment personalities.

TRP: TRANSCANADA PIPELINES transports and markets natural gas. Also active in energy marketing, power generation, gas liquids extraction, gas storage and carbon black manufacturing.

UMG: MEDIAONE GROUP is a diversified global broadband communications company with operations and investments in domestic broadband communications and international broadband and wireless communications. It owns an investment in Time Warner Entertainment Co. and Telewest Communications.

XON: EXXON CORP is engaged in the exploration for, and production of, crude oil and natural gas, manufacturing of petroleum products and transportation and sale of crude oil, natural gas and petroleum products.

PORTFOLIO 2: New America

APWR: ASTROPOWER INC develops, manufactures, markets and sells photo-voltaic solar cells, modules and panels for generating solar electric power. Solar cells are semiconductor devices which convert sunlight directly into electricity.

AXNT: AXENT TECHNOLOGIES INC develops, markets, licenses and supports enterprise-wide information security solutions for client/server computing environments.

CKFR: CHECKFREE HOLDINGS CORP is a provider of electronic commerce services, institutional portfolio management services, and financial application software for financial institutions and businesses and their customers.

DGXI: QUEST DIAGNOSTICS INC is a clinical laboratory testing company. Offers a broad range of routine and esoteric testing services used by the medical profession in the diagnosis, monitoring and treatment of disease and other medical conditions.

DRTE: DENDRITE INTERNAT INC provides comprehensive electronic territory management solutions used to manage, coordinate and control the activities of large sales forces in a complex selling environment, primarily in the pharmaceutical industry.

ECL: ECOLAB INC is a global developer of premium cleaning, sanitizing and maintenance products and services for the hospitality, institutional and industrial markets.

GTW: GATEWAY 2000 INC develops, manufactures, markets, & supports a broad line of desktop & portable PCs, digital media (convergence) PCs, servers, workstations & PC-related products used by individuals, families, businesses, government agencies & educational institutions.

LOW: LOWE'S COMPANIES INC is one of America's 25 largest retailers serving the home improvement, home decor, and home construction markets from approximately 450 stores located primarily in the eastern half of the United States.

MERQ: MERCURY INTERACTIVE CORP develops, markets and supports a family of automated software quality products that automate testing and quality assurance for developers of client/server software and systems.

MLNM: MILLENNIUM PHARMACEUTICAL applies a comprehensive platform of genomics and related technologies to pursue multiple business opportunities in the discovery and development.

RNWK: REAL NETWORKS INC is a provider of branded software products and services that enable the delivery of streaming media content over the Internet and intranets.

TDFW: TSI INTERNATIONAL SOFTWARE LTD is a leading provider of software and related services that enable organizations to integrate their business applications both internally and with external business partners.

TSG: SABRE GROUP HOLDINGS INC is the world leader in the electronic distribution of travel through its proprietary travel reservation and information system, SABRE, and is the largest electronic distributor of travel in North America.

PORTFOLIO 3: Value Line Aggressive Portfolio

AZO: AUTOZONE INC is the nation's leading specialty retailer of automotive parts and accessories, primarily focusing on 'do-it-yourself' customers.

BBBY: BED BATH & BEYOND INC is the nation's largest operator of 'superstores' selling predominantly better quality domestics merchandise and home furnishings typically found in better department stores.

BMCS: BMC SOFTWARE INC is a provider of high-performance systems management software products for mainframe and client/server based information systems. They also sell and provide maintenance, enhancements and support services for its products.

CTL: CENTURY TELEPHON ENTERPRISES is a regional diversified telecommunications company that is primarily engaged in providing traditional local exchange telephone services and cellular telephone communications services.

CVS: CVS CORP is one of the largest drugstore chains in the United States. In addition to prescription drugs and services, it offers a broad selection of general merchandise, including greeting cards, photo-finishing services, beauty and cosmetics, and convenience foods.

DME: DIME BANCORP INC provides consumer financial services and mortgage banking to selected markets throughout the United States.

DV: DEVRY INC owns and operates the DeVry Institutes of Technology and Keller Graduate School of Management which collectively form one of the largest private, degree-granting, regionally accredited higher education systems in North America.

DY: DYCOM INDUSTRIES INC provides fiber optic and copper transmission, comprehensive services installation, other telephone engineering, and electrical services to the telecommunications and electrical utilities industries nationwide through its wholly-owned subsidiaries.

ETH: ETHAN ALLEN INTERIORS is a leading manufacturer and retailer of quality home furnishings, offering a full range of furniture products and accessories.

HELE: HELEN OF TROY LTD designs and develops a variety of personal care appliances including hair dryers, curling irons, brush irons, lighted mirrors, hair-setters, ladies shavers and artificial nails and markets them primarily to retailers and distributors in the United States.

KRB: MBNA CORP is the parent company of MBNA America Bank. It is a major independent credit card lender and is the leading issuer of affinity credit cards. In addition to credit card lending, it also makes other consumer loans and offers insurance and deposit products.

LU: LUCENT TECHNOLOGIES INC designs, develops, manufactures and services systems and software which enable network operators to provide wire-line and wireless access, local, long distance and international voice, data and video services and cable television service.

MSFT: MICROSOFT CORP develops, manufactures, licenses, and supports a wide range of software products, including scalable operating systems for intelligent devices; server and business/consumer applications; software development tools; Internet/intranet software technologies.

NETA: NETWORK ASSOCIATES INC develops, markets, distributes and supports network management and security software products including client/server tools for software management, support management and desktop management and industry-leading anti-virus products.

PDCO: PATTERSON DENTAL CO is one of the largest providers of dental equipment, supplies and services to dentists, institutional customers and dental laboratories in North America.

SCH: SCHWAB CHARLES CORP Holding company is engaged, through its subsidiaries, in securities brokerage and related investment services for over 4 million active customer accounts.

SWY: SAFEWAY INC a major North American food and drug chain with retail operations principally located in California, Oregon, Washington, Colorado, Arizona, Chicago Metro area, the Mid-Atlantic region and Canada's British Columbia, Alberta and Manitoba/Saskatchewan.

UFS: U.S. FOODSERVICE is a broad-line distributor of food and related products. Offers a comprehensive range of food & related products from a single source of supply & provide foodservice establishments with the cost savings associated with large, full-service deliveries.

VTSS: VITESSE SEMICONDUCTOR CP is engaged in the design, development, manufacturing and marketing of digital gallium arsenide integrated circuits (GaAs ICs). Vitesse's products incorporate its proprietary high integration gallium arsenide (H-GaAs) technology to produce hi-performance ICs

WMT: WAL-MART STORES INC is the nation's largest retailer, operating Wal Mart Stores and Sam's Clubs throughout all 50 states.

WPI: WATSON PHARMACEUTICALS is engaged in the development, production, marketing and distribution of proprietary and off patent pharmaceutical products.

PORTFOLIO 4: Local Companies

ANSR: Answer Think Consulting

BLS: Bell South

CCL: Carnival Cruise Lines

CTXS: Citrix Systems

DRI: Dardeen Restaurants

FPL: Florida Power and Light

FRK: Florida Rocks

IVX: Ivax Pharmaceuticals Ltd.,

JNJ: Johnson and Johnson

MOT: Motorola Inc.,

R: Ryder

SRM: Sensormatic

SYKE: Sykes Enterprises

PORTFOLIO 5: Mutual Funds with historically best returns

BARAX: BARON ASSET FUND

FLCSX: FIDELITY LARGE CAP STOCK

JAVLX: JANUS TWENTIETH CENTURY

LMVTX: LEGG MASON VALUE TRUST

MAKOX: MATTHEWS INTERNATIONAL KOREA

PBHLX: PBHG:LARGE CAP GROWTH

Appendix B: Portfolio Performance:

1. Value Line Model