

is telecom still dead?

by Wes Williams

With today's ever increasing valuation of information technology stocks, how can we not reminisce, and perhaps be remorseful, about the dilapidated internet bubble of the late 1990's? And how can we forget about the demise of former telecom giant WorldCom?

Though these are the black eyes of recent markets, there may yet be hope in these sectors. To find this hope, we might need to look in the most unlikely places. For example, Owensboro, Kentucky, is a small city that is not well known outside the local boundaries, and its annual International Bar-B-Q Festival is hardly international. However, this sundry little town is home to something that may soon affect us all. In October 2002, Owensboro Municipal Utilities (OMU), the local provider for electricity and water, rolled out a high-speed broadband service to the entire city of 58,000. The service only costs \$25 a month, which is only a few dollars more than locally available low-speed dial-up internet access.

Only two months earlier, in Klamath Falls, Oregon, yet another experiment was being conducted by Always On Network, Inc., in Chiloquin, Oregon, a small start-up company that began serving up the same technology as OMU. Small internet service provider (ISP) start-ups are nothing new, but the approach of these two start-ups is unique. Both of these ISP's are using a technology that may threaten traditional cable and dial-up service providers such as Time Warner, Inc. & America Online (NYSE: TWX), United Online (NASDAQ: UNTD), Earthlink (NASDAQ: ELNK), and many more.

Even though Always On is significantly underfunded and OMU is not likely to swell beyond regional borders, both are significant players in the future of how the broadband internet will be accessed – and consequently, the value of dial-up services. Always On and OMU are both providers of internet access via wireless metropolitan-area



continued on page 6

editor's note —

by Daniel Haines



For those readers who are not familiar with the Roland George Investments Program, it is a student managed portfolio started with a grant from the George Family in 1982. The initial gift was \$500,000 and now the portfolio is valued at over \$2.7 million.

The program allows students to gain valuable experience making real-money decisions in both equity and fixed income investments. Unlike many other student managed funds, George investments are not liquidated at the end of each academic year; rather, it is the responsibility of the students to continuously monitor investments and make liquidation and reallocation decisions.

In the spring, students are exposed to the fixed income side whereas in the fall, the concentration is on equity investments. The main

continued on page 13

what's inside

analyst reports	7, 11, 12	editor's note	1
columns	1, 5, 8, 14	portfolio performance	2
director's update	4	spotlight	10



portfolio performance

by Jason Buser

The past year has certainly been refreshing for financial markets. Since last spring, corporate scandals and “accounting irregularities” have seen a decline, due in large part to the Sarbanes-Oxley Act. Economic indicators have charged ahead, with revised GDP growth of 8.2% for the third quarter, and productivity up 8.1% for the same period. Finally, although the world remains a turbulent place, market-shaking geopolitical events have slowed significantly.

The performance of major market indices reflects these favorable conditions. In the year beginning November 1, 2002, the S&P 500 is up an impressive 16.62% and the blue chip Dow Jones Industrial Average up 15.07% for the same period. Figures like these are a bright light at the end of a dark tunnel for financial markets.

Into such conditions, the Roland George Growth Portfolio charged ahead. The Growth Fund beat its benchmark S&P 500 by over two percent, up 18.77% for the year. Since January 1, the Income Fund is up an impressive 6.94%, handily outpacing its benchmark Lipper Intermediate Investment Grade Bond Index, up only 4.35% over the same period. Combined, the Growth and Income Funds fell just short of the S&P, up 15.38% since November 1, 2002.

Some may express surprise as to why the Growth Portfolio only beat its benchmark by about two percent. The answer is the same reason that the Growth Portfolio outpaced the S&P 500 by over five percent last year, when the market was down over 20%: beta. This measure of risk or volatility measures how much an individual stock

or portfolio will move in relation to the overall market. A beta of less than one denotes less movement, while greater than one indicates more movement. Throughout the past year, the growth portfolio has had a beta between .7 and .9, denoting less volatility than the market. This applies as the market goes up as well as down.

However, even though the portfolio has taken less risk than the market, it has still managed to outpace the market. Less risk and more return – certainly a winning combination.

The accompanying table compares the sector allocation of the Growth Portfolio to that of the S&P 500. As the economy continues to recover, the jobless rate catches up with the rest of the economy, and incomes increase, the George Program sees superior growth potential in the Consumer Discretionary sector. The George Program remains most underweighted in Information Technology and Telecommunications, two sectors that have been most risky and difficult to analyze.

As the market has had a year of superior performance, so have some of the stocks in the Growth Portfolio. Foremost among these is MFC Bancorp (MXBIF), up 148% for the year. Another outstanding performer this year has been 1-800-Flowers.com (FLWS), up a very impressive 91% in 2003. A final stand-out is Bradley Pharmaceutical (BDY), up 76% since January 1.

As another semester draws to a close, the Roland George Program looks back on its success, and looks forward to its promising future. The program has always prided itself on the in-depth analysis and meticulous attention to

detail of its students. These winning ingredients will no doubt lead to more success as the Roland George Investments Program begins 2004.

purchases

CollaGenex Pharmaceuticals (CGPI) is a specialty pharmaceutical company whose flagship product, Periostat, is the first and only pharmaceutical to treat periodontal disease by reducing the enzymes that destroy tissue. This and other drugs have given CGPI a firm hold on the dental pharmaceuticals market and promising growth potential.

Satyam Computer Services Ltd. (SAY) provides offshore computer services from India. This allows the company to keep costs lower than competitors while still providing exceptional service using competent, English-speaking programmers. The company has 286 global clients, 81 of which are Fortune 500 companies.

Cyberguard Corp. (CGFW) develops a variety of network security products, including firewalls and virtual private networks. The company also provides consulting services such as security assessments and training. The company’s products have won numerous IT security awards including EAL4+ Certification.

SurModics (SRDX) provides surface modification products for medical devices. One of their main customers is the Cordis Company, owned by Johnson & Johnson, which manufactures the newly approved

Cypher Stent, a SurModics-modified stent coated with drugs that significantly reduce the chance of arteries becoming clogged again.

Anteon International (ANT) is a leading provider of technology services to the U.S. government. They specialize in defense, intelligence, and emergency response systems, including missile-defense, military intelligence, and training simulators. With defense spending continuing to escalate, growth prospects look promising.

American Italian Pasta (PLB) supplies pasta to such customers as Kraft, General Mills, Wal-Mart, and Publix. The company has grown earnings by 19% annually over the past five years and has recently expanded with a new plant in the Southwest and acquisitions in the Midwest and Northwest.

Corillian Corporation (CORI) is a provider of Windows-based Internet banking and financial software. Their flagship Voyager software integrates into existing database systems, allows for monitoring in real time, and is used by such banks as Wachovia, Bank One, Chase Manhattan, Southtrust, and SunTrust.

United Natural Foods (UNFI) is a leading distributor of natural and organic foods. The company offers more than 32,000 natural foods products. The company's internal revenue growth rate has been roughly double that of the natural foods industry. The company recently signed a distribution agreement with Sodexo USA.

United Online (UNTD) is an Internet service provider that has come about from the merger of NetZero and Juno. The company offers dial-up Internet service in over 6,500 cities and has recently started high-speed dial-up services that are five times faster than normal dial-up. Revenue growth this year was 186% higher than the industry.

Dick's Sporting Goods (DKS) is a sporting goods retailer operating 141 stores in 25 states. The company is a full-line sporting goods retailer, offering sporting goods for nearly every major sport. For the six months ended this August, the company's net income rose by 34%.

sales

General Dynamics (GD) is one of the largest U.S. government contractors in existence. The stock is large cap and slow growth, not adhering to the Roland George strategy. The stock has also seen heavy insider selling.

Boston Beer Company (SAM) is a leading microbrewer whose chief product is Sam Adams beer. The company's sales and cash flow per share and return on equity lag behind the industry. The company also had to institute a costly share buyback program to offset dilution from the employee stock option plan.

Exelon Corp. (EXC) is an electric utility. Utilities are defensive stocks, which typically under perform the market during an economic recovery. Also, rising interest rates in the near future could hurt the heavily leveraged company's profits.

MIM Corp. (MIMS) is a provider of pharmaceutical benefit and healthcare services. While this stock was once an attractive buy, it has very low or negative earnings and cash flow growth prospects and is the weakest performer in its industry.

Corvel Corp. (CRVL) is a provider of healthcare and worker's compensation management services and an insurance intermediary. Sales growth has slowed, with the only sales growth coming as a result of acquisitions. Net income growth also trails the industry average (11.9% vs. 19.24%).

Renal Care Group (RCI) provides acute dialysis treatment services for over 120 hospitals nationwide. The company faces strong competition from DaVita Corp. and Fresenius Medical and the healthcare sector is a defensive one, a poor position to take in an economic recovery.

Perry Ellis International (PERY) sells high-quality men's sportswear, dress casual pants and shorts, and swimwear. The stock has increased by over 50% since the beginning of the year and has higher price-to-earnings and price-to-cash flow ratios than the industry.

Infinity Oil (IFNY) is an oil and gas equipment and services provider. Their position in their market is expected to be volatile in the near future due to fierce competition from Halliburton and BJ Services.

Chicago Pizza and Brewery (CHGO) owns and operates 30 casual dining restaurants in the western United States. The company's price-to-earnings ratio has risen above one hundred, a general signal that the company has become overvalued.



director's *update* —
by **Dr. Larry Belcher**

— change is in the wind —

As we enter 2004, there are a number of encouraging signs as far as the economy is concerned. In the last month of 2003, Saddam Hussein was captured, the Dow was over 10,000, retail sales were up a modest 5.5% over last year, and consumer confidence was up. These were just some of the highlights of a 2003 that was all over the map in terms of events. On the down side, we continue to see trading scandals and other examples of mismanagement in the financial services industry. However, the trend appears to be a positive one as we look forward.

If we look at the economy as a whole, however, there are some parallels to the mid-1970's as far as the economy is concerned. Back then, the economy reeled from two oil shocks in 1973 and 1979. Economists and policy makers struggled to assess the changes that the economy was going through as it adjusted to a quadrupling of oil prices. A severe recession resulted, and the economy stagnated for several years. In the last three years, the economy has been shocked by the tech bubble collapsing, September 11, wars in Afghanistan and Iraq, the corporate scandals of Enron, WorldCom, Global Crossing and others and the current trading scandals involving mutual funds. Just as in the earlier decade, economists and policy makers are trying to assess the damage from these shocks. Unlike the previous decade, however, the economy appears to be much more resilient and able to recover than it did then. Growth estimates for 2004 are in the 4%+ range for GDP and inflation estimates are below 2% for the year. Productivity increases due to increased computing speed, wireless technology, and other technological advances have carried the economy in spite of the shocks and in spite of job losses. Capital spending has been put on hold for the past three years as firms cleared out inventories and waited to see if recovery was on the way. Now it appears that firms are ramping up again and that capital spending will increase this year along with stable consumer demand. All of these factors point to a more rapid recovery as well as increased investment opportunities in a variety of industries in 2004.

One thing that has become even more important than before is fundamental research. With the scandals involving high profile companies as well as the trading scandals in financial services, doing one's homework becomes much harder. Information that was once assumed to be credible can now be viewed with suspicion. In addition, the amount of ignorance by market participants is at a higher level than

one would suspect, given the amount of technology available for research. In a December 14 column in the *Orlando Sentinel*, columnist Susan Strother Clarke quoted a recent survey given by the National Association of Securities Dealers (NASD). In it, only 35% of investors who took the survey passed it. Questions about whether or not stock losses were insured, mutual fund loads, and bond prices and interest rates were routinely missed. Ms. Clark summarized the nature of the problem in this quote: "The scariest result of that financial quiz may be this one: Despite the poor understanding of market basics, more than 80 percent of investors said they knew more about stocks than they did three years ago." This type of ignorance breeds volatility, as investors chase returns and "hot picks" and move large quantities of money in and out of the market.

Given the changes that continue to take place, students in the George Program have to adapt to stay abreast of where markets are headed. From an education standpoint, they are certainly way ahead of the average individual as far as knowledge is concerned. The pass rates on the CFA and Series 7 exams as well as their competition record attest to that. However, the volatility and structural changes in the market are things that even seasoned professionals struggle with. With recovery on the way and capital spending likely to increase, the students began altering the portfolio to capture changes that might take place. They added more technology and consumer oriented companies and sold off things that had exhausted their growth potential. As the new year unfolds, we will see what it holds. By all accounts, it should be better than the last one.



investing in health

by Sean Gorman



For the past year the Roland George Portfolio has been overweighted in the healthcare sector largely as a defensive position during the poor economy of the past several years. Although the sector has returned only 9.2% compared to the S&P 500's 21% return YTD, it holds many of the most attractive growth stocks with bright prospects for not only posting returns but improving human health. The biotechnology industry in particular has very bright prospects for developing novel treatments as the sequencing of the human genome has opened a new chapter in technology development for treating disease. Studying the function of proteins that newly discovered genes code for is the next major target for understanding and treating the mechanisms of disease. Educational institutions worldwide are investing large sums of money to advance understanding of protein function, as much of the scientific knowledge applied in the health industry comes from research advances made in academia.

The healthcare and biotechnology stocks in the George Portfolio have returned quite well over the past year, posting a 45% gain during the first nine months of 2003. The biotech industry trend is moving to consolidation of smaller firms. This provides more

resources for investing in research and development of potential products in the pipeline and provides a wider array of potential proprietary products that may turn out to be the next treatment for a plethora of diseases.

One of the current products that offers promising advances in treatments against heart disease is a drug eluting stent, which prevents epithelial cells from reblocking a stented artery decreasing the likelihood for future invasive intervention. The Cypher™ stent made by Johnson & Johnson is the first drug eluting stent to enter the market, with another in late stages of FDA approval. The George portfolio recently acquired Surmodics (SRDX), a surface materials company that is contracted to alter the surface of the Cypher™ stent so the drug Sirolimus can bind with the stent's polymer surface. Clinical efficacy has been high with patients implanted with Cypher™ stents having a recurrent in-stent blockage rate of 8.9% while patients implanted with traditional stents had reblockage rates of 36.3%. For patients, the combined occurrence of death, heart attacks, bypass surgery and repeated angioplasty was 8.3% for the Sirolimus eluting stent and 22.3% for the traditional stent. With the growing popularity and implication of more effective heart disease treatment, the near term future of companies associated with the next generation of stents is very positive.

Another outstanding biotech performer in the George Portfolio has been Embrex Corporation (EMBX). Embrex has a unique proprietary technology for automating the inoculation of eggs in the poultry market, which greatly increases the effectiveness of vaccinations. Embrex

has posted a 65.5% return over a six-month period since we acquired it in April 2003. It has just purchased a prototype new product that will sort eggs by sex, entering into a niche of the poultry market that has no competition other than manual sexing. Embrex has continued to provide excellent value by developing unique products used in conjunction with their automated egg injection system to maintain continuing growth, while applying innovative science to increase the safety and efficiency in the poultry industry.

Biotechnology's future industry growth rate over the next three years is estimated at 17% by the Biotechnology Industry Organization (BIO), and is very likely to be one of the industries that will outperform the general market over the long term as new discoveries continue to advance the quality of human life. The tools acquired from the human genome project have only begun to be utilized. As bio-informatics systems develop, along with other areas of genomic and proteomic research, the world of medicine will change at a rapid pace. Humanity has only scratched the surface of medical applications – the deeper we dig the more questions that will arise. The detail and intricacy of life will continue to provide endless projects for corporate contemplation, and those projects that are solved will provide future returns to fuel industry growth as long as there are resources to invest in R&D. The Roland George Investments Program continues to select under-priced, under-followed, quality stocks. It is a good bet that our portfolio will continue to see excellent returns from those picks coming from the health technology industry.

The investments program class experiences a corporate-like setting for the student trustee meetings and guest lecturers.

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continued from page 1

networks (MANs), the next generation of broadband. The MAN's are capable of providing access speeds from 250-2,000 Kb/s. You may be wondering that the speed performance does not best a typical cable or DSL (digital subscriber line) speed of 768-2,500 Kb/s; but the advantage of the MANs is that they are delivered wirelessly, transmitting their signals from existing or easily erectable cell phone communications towers.

The modern MAN system is using a new standard dubbed IEEE 802.16 that is similar to the very popular IEEE 802.11 Wi-Fi wireless standard that presently abounds in such places as coffee shops, airports, offices, and homes.

OMU and Always On have committed to implement each of their respective MANs with two distinct methodologies. These two opposing approaches are a direct result of the adoption of different technology vendors for each provider's backbone MAN system hardware.

Alvarion, Ltd. (NASDAQ: ALVR) and Soma Networks (private) are the two primary hardware providers for wireless MANs. Soma is a well funded start-up that has recently begun trials with NTT Communications Corporation, Tokyo, Japan, one of the world's largest telephone companies. While Alvarion has fully embraced the IEEE 802.16 standard as-is, Soma Networks is reluctant to fully adopt the IEEE 802.16 standard because it believes its

own propriety wireless MAN technology is superior due to the integration of quality-of-service features embedded. Though Soma Networks' approach partially defies the IEEE standard, their technology would help enhance the reliability of voice-over-IP (internet protocol) packet communication. These benefits to voice-over-IP create another valuable product niche in which all large telecom market players will find hard to refuse, potentially making the Soma version more useful and valuable.

Presently, DSL-providing telephone companies such as Verizon (NYSE: VZ), SBC Communications (NYSE: SBC), BellSouth (NYSE: BLS), and Qwest (NYSE: Q), are all failing to realize the same market growth of DSL subscribers that cable providers are enjoying, with cable subscribers now accounting for more than two-thirds of all broadband customers. Some disadvantages phone companies have had to deal with are that the DSL

technology itself is much more expensive to deploy than a comparable cable network and also is inherently less reliable. These shortcomings are in large part a direct consequence of the respective wiring infrastructures. The well-shielded single-conductor cable can sustain much greater bandwidth than the older copper telephone networks and are also far less susceptible to interference, boosting performance of cable infrastructures over DSL systems.

With the impending adoption of WISPs (wireless internet service providers), telephone companies may soon begin to win back many of their former internet customers, through the adoption of either Alvarion's or Soma Networks' IEEE 802.16 technologies. In fact, telephone providers have been working on this technology for some time. An ongoing test of Soma Networks' technology, in collaboration with NTT Communications Corporation, is still underway in San Francisco, while an eight-month field trial was conducted by Verizon using BeamReach Networks, Inc., technology in northern Virginia in July 2002. Closer to the George Investments Program, Bell South, in collaboration with Navini Networks, Inc., is

currently conducting a test at the Daytona International Speedway to evaluate the capacity of Navini's wireless MAN equipment to improve journalists' communications capabilities during the racing season.

What does this all mean? These technologies will allow streaming broadband speed internet access anywhere near cellular telephone repeater towers. Additionally, by omitting much of the expense

of running buried cable directly to the end users, the WISP system will substantially reduce the network infrastructure costs for telephone system providers. Along with that, these reduced costs can allow much more competitive and aggressive pricing schedules to provide dial-up users a viable and cost-effective broadband alternative – even in remote locations.

In conclusion, even though cable companies are presently enjoying great acceptance of their internet services, and many rural dial-up users have no alternative internet access, telephone service providers may soon begin to regain market share from both cable and dial-up subscribers. What was once the Achilles' heel of the telephone companies may soon provide their sustenance for a boon in this economic recovery.



growing the portfolio with UNTD

by *Phil Reagan*



United Online, Inc. (NASDAQ: UNTD) is the result of two Internet Service Providers, NetZero and Juno, that strategically merged in June of 2001 to form one of the largest value-priced companies in its segment. A year later United acquired internet access and email assets of Bluelight.com from the Kmart Corporation, thus further increasing market share in this newly formed corporation. In March and April of this year, United launched its value internet access to Macintosh users as well as introduced its new dialup accelerator, NetZero HiSpeed and Juno SpeedBand. This valuable program allows users to surf the web 5 times faster than normal dialup. Through the three brands, NetZero, Juno and BlueLight, United offers high quality, value-priced and free internet access, respectively. Headquartered in Westlake Village, California, and with offices in New York City, San Francisco and Hyderabad, India, United offers billable dial-up internet access services in more than 6,500 cities across the U.S. and Canada. In July of this year, they

reported approximately 5.2 million active users using their service.

United has taken new strides to promote its new internet accelerator service by heavily advertising on TV and radio, as well as publicizing with their NetZero HiSpeed Nascar vehicle driven by Ward Burton. There appears to be a correlation between their advertising and number of users since their paid subscribers increased 6.2% in the second quarter alone.

Half of their users are not paying customers but rather users of United's renowned free service. However, United does receive revenue indirectly from these "free users", by contracting out to other companies that may want to advertise through their service to these non-paying users. This is a very strategic maneuver by United because not only will they receive revenue, but also they are increasing their market share by luring these users into becoming potential paying customers.

United has done significantly well with revenue growth in the last year reporting a growth rate of more than 186% higher

than its industry. In the last quarter its revenues rose 53% from prior year to \$88.8M. Also, its bottom line totaled \$8.9M from \$1.5M over 3 months. Much of this is due to an increase in the average number of paying subscribers and lower product development and amortization expenses. Currently, United has zero debt and a cash flow of over \$200M. With strong numbers, United is very well positioned for investors as United ventures into broader business markets that will continue to expand this company's great growth rate.

The Roland George Investments Program added 1,500 shares of UNTD to their portfolio on December 4, 2003. This is a company that already has great fundamentals and is expected to continue to blow their competition out of the water. The analysts of the Program have set a target price of \$25 that is expected to be reached within the one-year horizon.



cyberguard corporation

by *Nemanja Vukovic*

CyberGuard Corporation develops, markets, and supports a family of integrated network security solutions. Its security appliance solutions include key security technology such as firewalls and virtual private networking (VPN). The Company's appliances are built upon a highly secure operating system and proprietary software designed to identify network and application attacks and prevent them from reaching mission-critical resources. Its firewall combines stateful packet inspection and application proxy technologies to deliver the highest level of security and performance for an enterprise's network. The stock has performed very well for several quarters and has experienced positive earnings despite the recession.

Recently, Cyberguard acquired Snapgear, a major enterprise security market player in the Asian and Pacific Rim region, which reflects the management's commitment to expansion into a global market. Cyberguard was rated one of the most satisfactory security solutions producers among competitors such as Verisign, Cisco Systems, and others. Cyberguard represents a good addition to the Roland George 2003 portfolio because of its upside potential and financial soundness which will – combined with the expected strong revenue growth – aid the entire position of our portfolio.

— the basics of technical analysis —

by Kevin Notaro

The students within the Roland George Investments Program do not rely heavily on technical analysis; but for a well-rounded breakdown of an equity selection, they have learned to bring in more than just strict fundamentals.

“We find that the technical side of our evaluations helps more in terms of timing in our decisions, than in the actual final decision of quality companies for our portfolio,” noted a George student.

InvestorWords.com describes technical analysis as a method of evaluating securities by relying on the assumption that market data, such as charts of price, volume, and open interest, can help predict future (usually short-term) market trends. Unlike fundamental analysis, the intrinsic value of the security is not considered. Technical analysts believe that they can accurately predict the future price of a stock by looking at its historical prices and other trading variables.

The analysts at MoneyCentral note that critics put down technical

analysis as only so much hocus-pocus, not far removed from tea-leaf reading. Advocates maintain that the stock market visibly moves in broad patterns, and that these can be recognized by careful charting and knowledge of history. Whether or not technical analysis has any validity, it has a good many adherents – and on that basis alone influences stock prices.

Using a one-year chart of General Electric, one is able to see many technical indicators come to life. Some of the basic indicators include the moving averages, Bollinger bands, MACD, stochastics, relative strength index and trading patterns. This first chart should be used as a reference to view how the technical indicators mentioned in the discussion coincide with the price changes.

moving averages & bollinger bands

Using the 13-day and 50-day exponential, moving averages are

valuable since they typically act as floors below prices when they are rising, and as ceilings above prices when they are falling. As you can see from GE’s chart during the month of April, the upward trend used the 13-day EMA as a floor, until it finally made a considerable move through late in the month. This same analysis can be used for the months of June as well as August through October.

The key assumption that analysts make when using Bollinger Bands to trade is that prices tend to continue within the upper and lower bands. When a price breaks through a boundary, either above the upper line or below the lower line, it usually signals that the move is strong enough to continue further. Some time periods where this can be seen date back to mid-March, early-June, and mid-August. These were all on the up-trend, but down-trending with Bollinger Bands can also be found, most prominently in January. When the bands get closer together, it is more



likely that there will be a price breakout in either direction. This can be viewed in mid-January as well as mid-August.

macd

The moving average convergence/divergence (MACD) indicator is created by calculating the difference between two exponential moving averages. A third exponential moving average is plotted on top of the MACD as a trigger line to provide buy and sell signals. For the basic purpose of trading, when the MACD crosses above the trigger line, this is a buy signal. When the MACD crosses below the trigger line, this is a sell signal. Buy signals are circled on the chart in green, while sells are indicated by red circles.

stochastic

This technical indicator measures overbought and oversold conditions in a stock, based on moving averages and relative strength. It is used by market technicians as a timing indicator for signals of market reversal. This chart is used by receiving a buy signal when the lines are below 20, showing that it has most likely reached a low, and will reverse. The opposite is true when the lines are above 80, giving a sell signal and a reversal as well. During late-July to mid-August we see a bottoming out of the stochastic, in turn an up-trend within the price thereafter.

relative strength index

This is another indicator that measures the oversold/overbought conditions for a particular stock based on its price to relative performance. Technical analysts believe that a value of 30 or below indicates an oversold condition and that a value of 70 or above indicates an overbought condition. One can see a bottoming out in late-January to mid-February, leading to an upward reversal of the stock. On the other hand, in mid-June there was a topping out of the RSI, leading to a downward trending stock.

trading patterns

We can see a double-top around \$32, first met in mid-June and again in mid-September. This should hold a price ceiling in the near future. The next trading pattern that can be found in GE is the triple-bottom. This triple bottom is around \$27 and is formed by the following dates; mid-May, mid-July and just recently tested again in mid-November. A slight cup with handle pattern can be seen from the beginning of December '02 to early-April this year. The height of the cup is approximately \$6, so added to the breakout point of \$28, the technical value of GE should have risen to around \$34, which it fell just short of.

book review

intelligent conclusions and insights from
over forty years in financial markets — a
wealth of knowledge for the taking

by **Todd Dorsey**



To delve into finance and quickly grasp the concept, you are best suited to read books by those who have eaten money and slept finance for the majority of their lives. Dr. Malkiel uses bankrolls for pillows as chairman professor of economics at Princeton University, a former member of the Council of Economic Advisors, and an active individual on numerous investment boards. *A Random Walk Down Wall Street*© will allow you to make informed and educated decisions respective to your investments and savings. It is written simply and with the intent of helping any layman understand a concept foreign to most – financial markets and how they work. Not the brute mechanics of how trades are executed, but more so how investments are birthed, how prices are determined and a simplified explanation of the basic workings of the market mechanism.

A random walk is a theory that future prices or short-run changes in prices cannot be predicted and that markets are efficient. Malkiel enumerates two theories to price securities: the “firm-foundation” and the “castle-in-the-air”. “Firm foundation” advocates that each investment instrument has an intrinsic value – a true underlying value – which can be determined by careful analysis. Most forms of deriving intrinsic value involve discounting future cash flows (like dividends or free-cash flow) to arrive at today’s intrinsic value. Methodologies which require discounting of future cash flows involve estimating unknown cash flow. Understand that this theory of pricing relies on your ability to forecast and predict the future – a precarious and difficult task.

“Castle-in-the-air” focuses on the perceived value or investor’s expectations – “a thing is worth only what someone else will pay for it.” This theory was originated in “The General Theory of Employment, Interest and Money” by John Maynard

Keynes which states that no one knows for sure what will influence future earnings prospects and dividend payments; and, therefore, one should focus attention on “foreseeing changes in the conventional basis of valuation a short time ahead of the general public.” One who buys investments must determine what future buyers are willing to pay. The Castle theory is analogous to the Firm theory in that it too relies on human intuition and estimation. The main conclusion of said theories is that stocks are bought on expectations – not facts.

Malkiel describes the history of the stock market through eras and provides examples of speculative times and periods of crowd madness, confirming that times of irrational prices always regress to rational prices.

Malkiel describes the tools used by professionals: fundamental and technical analysis. Technical analysis uses past price and volume data to dictate trades, while fundamental analysis uses past company records (balance sheets, income statements, news, etc.) to arrive at a fair value. Malkiel provides research that past prices cannot be used to predict future prices and therefore, technical analysis is 100% worthless. In a review of fundamental analysis, he concludes it cannot be used to produce superior returns; although he admits there is the possibility for an individual with superior intellect and judgment to produce superior returns.

Malkiel tackles a series of investment tools: Modern Portfolio Theory and Diversification, Capital Asset Pricing Model (CAPM), and tools to measure risk (beta & standard deviation). In his final section, Malkiel proposes a practical investment guide for those who have the means with which to invest.

“Success in a free country is simple. Get a job, get an education, and learn to save and invest wisely.”- William J. O’Neil, Owner of Investor Business Daily



an emerging industry . . .

by Stephan Moroney

Unearthing a brilliant trend like the discovery of gold causes a fever or inflow of interest capable of turning an idea into a multi-billion dollar industry. The Roland George Investments Program prides itself on the footwork necessary to expose undervalued growth companies. As our nation becomes more advanced, the economy must look to technological innovations in order to fuel continuing growth. By itself, the computer revolution has produced a number of ancillary trends creating new jobs and driving the economy higher. However, the chief objective arises in identifying these industries before they become common knowledge. As such, the out-sourcing of information technologies to specific onsite/offshore companies has become just such an industry.

In particular, Satyam Computer Services Ltd. (ticker symbol: SAY) has developed an efficient onsite/offshore business model. By employing a majority of competent English speaking programmers in India and a number of others around the world, the management at Satyam believes to have a competitive advantage to those offering similar services in further developed countries. Satyam has the ability to offer superior service at costs significantly lower than their competitors. Currently, Satyam contracts with over 286 global clients, 81 of which are Fortune 500 Companies¹. General Electric and State Farm Mutual Automotive Insurance represent Satyam's largest current customers with Bear Stearns making Satyam their preferred

provider in November 2003. In addition, the Company holds the highest industry certifications in the ISO 9001:2000 cert and SEII-CMM, a cert held by only 58 companies world wide.

Furthermore, the company owns SIFY, which is the largest Internet provider in India and represents enormous growth potential. Also, Satyam management continues to uncover growth opportunities via the Satyam Technological Entrepreneur Program. The program allows company associates to create a joint venture with Satyam to develop ideas and possibly create new software. This provides significant incentive for company employees to innovate and assist in driving company growth. This in conjunction with competency across a very wide range of fields and a well developed infrastructure put Satyam in position to dominate this industry in the near term future.

Finally, an analysis of the company website reveals that an expansion plan includes hiring some 1,500 new employees, an obvious testament to their growth prospects.



¹ <http://>

cbs.marketwatch.com/tools/quotes/profile.asp?siteid=bigcharts&symb=say



by **Kevin Notaro**

CollaGenex Pharmaceuticals[®], Inc. is a specialty pharmaceutical company focused on providing innovative medical therapies for targeted disease classes in high potential markets. CollaGenex currently serves the dental and dermatology markets. The main revenue producer for CollaGenex is the dental tablet Periostat used to treat periodontal disease. Periostat is the flagship product of CollaGenex Pharmaceuticals. It is the first and only systemic pharmaceutical to treat periodontal disease by inhibiting the enzymes that destroy periodontal support tissues. In 2001 Periostat was granted the Seal of Acceptance by the American Dental Association (ADA).

CollaGenex is growing at a tremendous rate, having come out of negative earnings in previous years. They have a very strong hold on the dental pharmaceutical market and still have room to grow and expand as they reach the foreign markets. CollaGenex International Limited is the wholly owned subsidiary of CollaGenex Pharmaceuticals, Inc. This entity manages the regulatory, clinical, commercial, and intellectual property issues in the United Kingdom (UK) and continental Europe. CollaGenex also has marketing partners in Japan, Spain, Portugal, Switzerland, Austria, Israel, and Greece. More along the lines of products, CollaGenex has completed Phase II clinical trials for Periostat in the treatment of moderate acne. CollaGenex is also developing other applications of its proprietary IMPACS[®] (Inhibitors of Multiple Proteases And CytokineS) technology, on which Periostat is based. Additionally, Metastat[®] is in clinical trials, under the sponsorship of the National Cancer Institute, for Kaposi's sarcoma, brain tumors, and prostate cancer. CollaGenex is also developing a portfolio of products for the dermatology market. Products in the dermatology portfolio include Pandel[®], a mid-potency corticosteroid for atopic dermatitis and psoriasis and Pro-Q[™], a skin barrier protectant for dry, chapped, and itchy skin. Finally, they are developing additional prescription and over-the-counter (OTC) products based on Restoraderm[™], a novel drug delivery technology acquired in 2002.

The biotechnology and drugs industry is continually growing, reaching new heights every year. Growth in the



pharmaceutical industry is fueled by increasing demand for better drugs from aging baby boomers and recent discoveries in the biomedical sciences. Of the biotech medicines on the market, 70 percent were approved in the last six years. Yet, for over two years now, the pharmaceutical industry has lagged behind the S&P 500. This has been happening even though it has had positive year-to-year earnings growth as well as stable revenue growth as a whole.

recent events —

- ☞ CollaGenex recorded its fifth quarter of profitability. For the third quarter of 2003, revenues increased 24% to \$13.9 million, and net income allocable to common stockholders was \$0.06 per diluted share.
- ☞ CollaGenex settled all pending litigation between the Company and West-ward Pharmaceutical Corporation. West-ward agreed and confessed to judgment that CollaGenex's Periostat[®] patents are valid and infringed by the filing of its ANDA.

investment highlights —

- ⌚ The leading specialty pharmaceutical company serving the \$6 billion periodontal market
- ⌚ Significant opportunity in the \$5.6 billion dermatology market
- ⌚ Broad potential application of IMPACS and Restoraderm technologies
- ⌚ Able to leverage large, highly trained sales force
- ⌚ Solid financial performance; strong balance sheet

¹ www.collagenx.com, Bloomberg Service

editor's note —

continued from page 1

focus of this publication is to give the reader an idea of the program's equity investment strategy.

A thorough depiction of the program's performance and asset allocation can be found in the portfolio performance section beginning on page two. Also, throughout the newsletter there are discussions of recent equity purchases written by the students who proposed them. Our feature article is by Wes Williams, one of the graduate students participating in the program. Wes provides his insight into the future of the Telecom industry considering both exciting technology and increased competition among providers.

As the students of the George Program conclude this

semester studying equity investments, we would like to express our appreciation to Stetson and the George Family for the opportunity and experience, as well as the professors for their tutelage and direction. The George Program has established itself as one of the best in the country and we intend to continue that legacy of excellence and success far into the future.

Comments regarding this year's newsletter would be greatly appreciated. Please e-mail Daniel Haines at dhaines03@hotmail.com with any suggestions. Thank you for taking the time to read this publication and enjoy!

Having professionals like Bob Stovall, Brian Bruce and Mike Serio participate in our investments program lends real-world insight and practical value.



the other side of the investment world - an interview with K. C. Ma

by Mikkel Finstad



Dr. K.C. Ma, CFA, has been the visiting Roland George Professor of Applied Investments for a total of four years. Much of his experience in the financial world has been in the Hedge Fund Industry. Dr. Ma currently runs a Hedge Fund operating a market-neutral investment strategy. He graciously provides George students internship positions at his local firm as well as provides them with an opportunity to acquire a Series 7 NASD certification.

Question: What is “alternative investment”?

Answer: Alternative investment is contrasted with the conventional investment that is long only and mainly cash based. The investment opportunities in this category can be characterized by the fact that: (1) they take both long and short positions in the market; (2) the assets are often leveraged; and, (3) the leverage is either financed by margin borrowing or using derivative instruments.

Question: What is a “hedge fund”?

Answer: Hedge fund is a typical form of organization that invests in alternative investments. The “fund” component is different from the traditional “managed account” in the investment advisory practice. In a typical managed account relationship, an investor opens investment accounts in his/her name and authorizes the manager as a trading agent. When the investment manager pools many investors’ money in a single entity, it is considered a fund which is under manager’s name. All hedge funds, as the name indicates, should be hedged against the market risk to some degree. This is accomplished by the practice of shorting the market.

Question: What is the risk to invest in hedge funds?

Answer: Hedge funds often use leverage to boost their returns. Of course, the return volatility is also amplified. In general, hedge funds have significant drawdown due to

the leverage factor. Furthermore, (private) hedge funds are not regulated to the same degree as the public mutual funds are. Since the hedge fund is not in an investor’s name, the credibility of the investment manager is crucial. Hedge funds are considered to have a higher default risk. Investors of hedge funds should also realize the higher liquidity risk is usually associated with their money. Most hedge funds have some type of “lockup periods” which last somewhere between 6 and 12 months. Investors will not be able to withdraw their money until the lockup period expires.

Question: What is the cost in investing in hedge funds?

Answer: Hedge funds usually charge a higher fee than mutual funds. The fee structure often includes an annual management fee (around 1%) and a performance-based fee (20% of the annual profit). However, hedge funds also incur additional costs, such as legal/organization fees, financing costs, administration fees, and account/auditing fees among others. These fees are passed through to the investors.

Question: Should the George Portfolio consider alternative investments?

Answer: It should be understood that while investing in long positions and in short positions there are two sides of the same coin. Like most hedge funds, shorting the stock is used for hedging, rather than for speculating the market direction. George students should open their minds to the other side of the investment world.



State-of-the-art technology along with a corporate-style environment aides Elena Philipova in giving a presentation to the board of trustees.



— roland george
students develop their
own investment goals,
objectives, and criteria
for managing their
portfolio —





thegeorgeinvestmentsview

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The *George Investment View* is intended to be an educational document. Investment views belong to the authors and not Stetson University.

The Roland George Investments Program was created in 1980 by Sarah George to provide a unique experience for future investment professionals. This bequest was intended to honor her husband, Roland, who, after completing his education, began to ply his trade and promptly lost money. Mr. George decided that serious flaws were evident in the traditional educational process for future investors since by over-coming his formal education he was able to master investing and in short accumulate wealth.

From this start, Mr. George formed the ideas of creating an investment curriculum that combined academic theory with real world experience. This dream came true when Sarah George funded the Roland George Investments Program. This program provides support for the applied investments program at Stetson University where students manage a portfolio valued at over \$2.7 million dollars. Insights are gained through contact with professionals such as Robert Stovall, CFA, of Wood Asset Management, Inc., Sarasota, FL

For information on the Roland George Investments Program contact Dr. Larry Belcher at 386-822-7442.