George Inve$tment View

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WELCOME! While the Internet has brought Las Vegas to Main Street, students in the Roland George investments Program are still looking for value and a margin of safety. For the past few years, it appears that the basic tenets of buying assets based on value were outdated. It now appears that the students are ahead of the times.

— *Dr. Jim Mallett, Director*

Mr. Greenspan vs. The Bulls
A Contrarian View

The financial markets didn't take much time to celebrate the new millennium as they continued to trend upwards during the first quarter. The fourth quarter GDP growth numbers were revised upward twice to an astounding 7.3% rate. Oil prices continued to rise, and the OPEC countries seemed as if they controlled the fate of our economy. The NASDAQ reached a record level of 5,000 as technology continued to reign supreme. Bond yields formed an inverted yield curve. Thus the million-dollar question, what gives?

Oil prices, GDP, wage gains, and slowing productivity numbers have put the fear of inflation back into the picture. The markets started to see the prices for oil and wages cutting into corporate profits and generating considerable upward movement in the CPI. OPEC did come to its senses though and rescinded the supply cut back by 1.7 million barrels per day. This seems to have given us some temporary relief, but with summer on the horizon, oil supplies must be considered a significant economic concern.

Even though the Fed has raised the FED fund's rate five times, the 30-year yields continue to hover below 6% as of this printing, reflecting the government's buy back program of long term debt. The first week in April drove yields down further as distribution in the NASDAQ found people taking their money and fleeing into bonds and old economy stocks. But the action may not be over. As the Fed aggressively acts to restrict the money supply, we could see real rates and inflation premiums dip. Given a continuing weak world economy, the Fed's aggressive actions to stem credit, government buybacks of long term debt, and market's demand (segmentation theory) for longer bonds, we believe the long bond could see near 5% yields within eighteen months, levels that many experts have predicted in the past year. As long yields remain near 6%, the bond market is signaling to the Fed that they won't do the work for them. So what remains is an economy putting the heat on the Fed.

The Fed is in the hot seat and all eyes are focused on Mr. Greenspan. Recent excessive GDP growth coupled with increased oil prices, rising wage demands, and only modest productivity increases, have made inflation Topic One. The capital markets are saying that despite improving productivity numbers, the economy simply cannot sustain growth at these rates without creating higher inflation numbers. With inflation as a growing concern in the capital markets, there is momentarily an anticipation that the FED will continue to raise the federal funds' rate throughout the year, limit credit, and minimize money growth. The question for now is if and when the economy will cool and inflation be considered benign.

The overvalued NASDAQ spoke first and quickly collapsed from its record level of 5,000 with the money fleeing to old economy stocks and blue chip technologies that have proven profitability. The e-tailors, business to business and other outrageously valued stocks took huge hits as investors' confidence collapsed. The accelerated run to 5,000 in 2000 was erased, and the NASDAQ appears to be in an official bear market. Next the DJIA suffered its biggest point loss in history during a weeklong bloodletting, but remained highly priced and well above 10,000. Clearly the bull has lost his way. But is this just a correction or is it the end of the most stupendous of bull markets? Just like nature, the markets have once again proved their power and instilled fear in many.

It remains evident that Mr. Greenspan is not the emperor of the bull market that many thought but simply the head of the Fed. He is going to cool the economy, and we can expect to see the impact on the financial markets in the months ahead. Our only advice — use extreme caution in selecting stocks because one can be assured that we can not expect to see the sustained "irrational exuberance" we have been accustomed to.

by Steven Cervino

CHANGES IN THE PORTFOLIO . . . .

The Roland George Investments Program was active in managing both funds in the portfolio during the spring semester and took advantage of market opportunities to refocus the portfolio to better fit the investment strategies.

Purchases in the Growth Fund:

The first purchases were made to re-establish positions in financial sectors that had been closed out in prior years. We purchased 25 shares of Berkshire Hathaway B class shares (BRK.B) given the oversold insurance sector and our confidence in Berkshire's historical ability to manage insurance assets. We purchased 1,000 shares of MBIA (MBI), a company that we valued at twice its market price. MBIA insures municipal bonds and trades at approximately 8 times earnings. Credit worries appear to have recently discounted MBIA's value. We purchased 1,200 shares of Pre-Paid Legal Services (PPD) on the basis of improving margins and new corporate markets. PPD's $29 price was severely discounted after a bad earnings announcement. We value the company at approximately $60 per share given its historical growth rate, new corporate markets, and estimated free cash flows.

The Growth Fund also acquired 4,000 shares of Quorum Health Group (QHGI) at an approximate cost of $8.50 per share. QHGI has a strong competitive position in hospital management at a time when hospital assets are very inexpensive and at a time when revenue increases to hospitals are beginning to improve. We value the hospital's assets at no less that $18 per share. QHGI also trades at a deeply discounted cash flow multiple, and we anticipate that cash flow will grow at no less than 7% in the near term. Any reasonable growth of cash flow or earnings should generate a higher earnings multiple for the stock. The purchase of shares in the Invesco Drug Fund, a mutual fund invested in large cap drug companies, increased our weighting in health care. The drug sector appears reasonably valued at this time. Due to the merger of Mirage (MIR) and MGM Grand (MGG), we will receive $21 cash per share for our Mirage position, a substantial premium from its recent $12 low, but well below our prior $35 per share valuation based on maximum earnings power. We concluded that MGM Grand was paying a very reasonable price for MIR assets, and that a combined Mirage-MGM Grand should be a tremendous cash generating company when managed by the experienced and value conscious Kirk Kerkorian. As a result we purchased 2,000 shares of MGG at approximately $20 per share.

Purchases in the Income Fund:

Our Income Fund purchases were made to meet our income strategy, hedge against inflation and interest rate risk, and to take advantage of opportunities we felt existed in the marketplace. We purchased a 4% portfolio position in First Industrial Realty Trust (FR) given its increasing cash flow, its 9% current yield, and the cheap price/asset valuation. REITs are still cheap in terms of asset valuations. Ten-year Treasury Inflation Protected Securities (TIPS) were bought in order to hedge our portfolio against inflation. TIPS provide a 4% real rate of return and principal is adjusted for any inflation. A 6.75% Global Crossing (GBLX) preferred convertible was purchased for the Income Fund as a higher yielding instrument that provided exposure to the increasing need for bandwidth in the global economy. The coverage ratios and book value provide the investment with a substantial margin of safety, and we fully expect rating agencies to up-grade these GBLX bonds in the coming year.

Sales in the Portfolio:

During the semester we eliminated overvalued stocks and pruned securities that no longer fit our strategies. We halved our position in Electro Scientific (ESIO) by selling 1,000 shares on the basis that the stock was trading at 25 times 2001 earnings. We sold half (300 shares) our Micron Technologies (MU) given the stock's recent positive performance and recent fundamental uncertainties for the demand and pricing of DRAMs. To better position our portfolio toward our core strategies, we sold our entire position in Analytical Surveys (ANLT). Questionable revenue reporting and management changes indicated a higher risk future for the company. The Growth Fund also sold 3,000 shares of the Japan Equity Fund. The fund was badly under-performing its bogey. We sold our 400 shares of Toys R Us (TOY) because of the weakening competitive position. Shares of Trizechan (TZH) were sold because of their new focus on European malls and technology. Our sale of Westcoast Energy (WE) reflected a change in portfolio strategy.

by Mike Gunning

TABLE OF CONTENTS

"Mr. Greenspan vs. The Bulls . . ." 1
Changes in the Portfolio 2
MGM Grand (MGG) 3
Quorum Health Group (QHGI) 4
First Industrial Realty Trust (FR) 5
Pre-Paid Legal Services (PPD) 6
Invesco Global Health Sciences (GHS) 7
Global Communications (GBLX) 8
"The Telecosm: What every investor should know". 9
"Indexing versus Active Management . . ." 10
"Yield Curve Inversion . . ." 10
Meet the Faculty 11
Comments & Disclaimer 12

MGM Grand (MGG)

Investment Thesis — Recommended for Growth Portfolio

Recommendation	Buy
Current Price	$21.75
Current P/E Ratio	15.7
Price/Book	2.31

Company Description:

MGM operates hotel-casinos located primarily in Las Vegas. The recent agreement to buy MIR makes the company the leader in the gaming industry.

High Roller Destination:

For many years MIR and MGG have been bellwethers of high stakes entertainment in Las Vegas. High stakes gamblers from all over the world visit Las Vegas and stay at MIR and MGG's luxurious resorts. Now one company controls the market and there will be less competition for the big money gamblers. This synergy will cut costs and drive ROE higher.

92% Occupancy Rates On Average:

Vegas hotels are known for their high occupancy rates which exceed 97% at "full season". We believe that given these occupancy numbers, MIR's profitability was poorly managed, and that MGG management will dramatically improve ROE of MIR hotels going forward.

Cost Containment Synergy:

Now that the two largest casinos are one, management has greater leverage in demanding lower costs and priority service from suppliers. Moreover, we expect Kerkorian to cut overhead in every aspect of the combined business. Further, new suppliers will compete fiercely for business giving better prices than they have historically offered. We believe this trend in improving cost structure is just beginning and should continue for a significant period of time.

Focus on ROE:

The previous CEO of MIR was Steve Wynn. He styled his casinos with the best of everything. This was a nice touch for the visitors, but many times it resulted in unnecessary CAPX spending and higher operating costs. Wynn wanted everything to look great and worried about how to pay for it later. Kerkorian is almost the exact opposite of Wynn. At MGG, Kerkorian runs high margin resorts in an economical manner. As Kerkorian takes over MIR's assets, he will eliminate unnecessary costs leading to a substantial increase in ROE and improved cash flows. Finally, look for Kerkorian to close casinos that are not generating cash flows above MGG's hurdle rate.

MIR's Assets Pay Down MGG Debt:

MGG took on about $2 billion in debt to make the acquisition possible. As stated earlier, Kerkorian will get rid of much of the glitz that Steve Wynn was known for and in so doing will generate large sums from the sale of art and other non-operating assets to reduce debt levels. A positive surprise would be the sale of a major resort hotel that management identifies as a poor performer (The Beau Rivage?). A major asset sale would also act as a catalyst for the stock price.

Valuation - CAPX Cycle May Be At An End:

We believe that MGG will face little if any new CAPX spending in the longer term, allowing management to generate substantial free cash flows (FCF) going forward into this decade. Our model based on the estimated YE 2000 FCF estimates values MGG at $44 per share.

by Cory Petcoff

Quorum Health Group (QHGI)

Recommendation
Buy

Current Price
$9.875

P/FCF
12x

P/Book
1.26

Investment Thesis — Recommended for Growth Portfolio

Company Description:

Quorum Health Group owns and operates acute care hospitals as well as local and regional healthcare systems across the United States. The company also, through a subsidiary, manages not-for-profit hospitals and provides consulting services to a large number of hospitals.

Definite Competitive Advantages:

QHGI faces considerable pricing challenges as they experience the pressures from decreases in Medicaid. Different from many other hospital owners and operators, though, QHGI has bargaining power with health insurance and managed care companies. In many regions, they are the only hospital(s) in the growing markets in which they serve. QHGI is able to establish favorable markets for their own hospitals by using the hospital management business as a way of identifying reasonable targets to acquire — hospitals that they know and manage. Additionally, QHGI continues to offer new services and is concentrating on continuing to grow outpatient services.

Look for Growth in Margins:

In the past, QHGI was able to offer excellent EBITDA margins of 18%. These margins have decreased because of government payment reductions as a result of the Balanced Budget Act of 1997, large discounts given to health insurance and managed care companies, and the failure to cut costs at the same rate as pricing declines. For the future, however, QHGI looks to be able to adjust to changing conditions and bring margins back. Second quarter results show their ability to grow intrinsically, increasing service revenues. Further, hospital admissions grew 2.2%, increasing net revenues by 6.5%. Additionally, EBITDA has started to accelerate, reaching 16% for the quarter. These figures show the company's ability to cut costs and command higher prices.

Insider Buying:

The company was spun out from Columbia via an LBO by Welsh, Carson, Anderson & Stowe, a respected venture capital firm. Russell Carson sits as Chairman of the Board. Currently, Russell Carson personally owns about 25% of the company and his equity investment fund (Welsh, Carson, Anderson & Stowe) owns an additional 24%. Both parties have recently purchased large amounts of stock. Mr. Carson is an experienced health investor. Finally, the company has been a major buyer of its stock in recent quarters, investing nearly $60 million in a stock repurchase program.

Margin of Safety:

Experienced investment professionals estimate the asset value of the owned hospitals at about $18 per share on an EBITDA basis, and they have stated publicly that the best short term outcome for investors in QHGI is to liquidate the hospitals. The company is trading at approximately 1.26x stated accounting book value. We value the company today at $21 based on our free cash flow model. We believe the discounted stock price reflects both an out-of-favor industry and a hated stock that has disappointed many an investor. We note that the company is currently trading at 12x today's free cash flow, comparatively inexpensive given this company's asset values. Going forward we expect FCF to grow in excess of 20%, and we anticipate the market's future valuation will discount both a higher FCF and a higher growth rate for that cash flow.

by Mike Gunning

Investment Thesis — Recommended for Income Portfolio

Recommendation	Buy
Current Price	$27.25
Dividend Yield	9%
P/FFO	1.05
P/Book	1.05

Company Description:

First Industrial is a real estate investment trust that actively manages a portfolio of industrial warehouses. They currently own 1,000 properties that account for 70 million square feet and are focusing growth on the nation's top 25 markets.

FFO Growth:

First Industrial has shown consistent growth in funds from operations in the past and we estimate that they will generate considerable growth in the coming years. The FFO yield is currently 12.5% and the 2000 FFO estimate is $3.59. The 8.3% consensus estimated growth rate slightly lags the sector average but the FFO multiple of 7.7 is a 12% discount to the sector mean. The slowing growth rate is a result of management's strategy that is focused upon reducing risk within the property portfolio. The estimated 2000 growth rate for FAD is at the sector average but the multiple is at a 16% discount. On the basis of the FFO and FAD discounted multiples, First Industrial is a good value.

Balance Sheet:

First Industrial has an extremely strong balance sheet, one of the most important aspects of operating in the REIT business. Total debt-to-market capitalization is about 50%, a level about average for the industry. Although the company is at the upper range of its debt range, the unencumbered real estate remains at 90%. Variable rate debt is 8.19% of total debt, which minimizes interest rate risk and provides more consistent returns.

Diversification:

First Industrial is the leader in industrial property management. They are the most diversified in the sector with 36% light industrial, 33% bulk warehouse, 17% research and development, 7% manufacturing and 7% regional warehouse. Diversification not only exists in the property types but also geographically and in tenant mix, where no single tenant accounts for more than 1% of revenues. Most of the overbuilding within the industrial sector occurs in the bulk warehouse property types and this only represents one third of First Industrial's portfolio. This broad diversification positions the company for stable portfolio performance with less vulnerability to supply/demand cycles.

Margin of Safety:

Given current REIT prices, the entire REIT industry provides investors with a great margin of safety. FR's book value per share is $27.56 but this value reflects the cost of property less depreciation. Although the real estate is depreciated, it is normally the case that real estate does in fact appreciate rather than depreciate. The stock is trading at 1 times FR's book value. However, FR trades at a substantial discount to the estimated replacement cost of its fixed assets and the market value of its properties, providing a significant margin of safety for our investment.

by Steven Cervino

Pre-Paid Legal Services (PPD)

Recommendation	Buy
Current Price	$28
P/E	17.8
Market Cap	$669 Million
P/CF	16.5
ROE	36%
Price/Book	5.8
EBITDA Margin	28%

Investment Thesis — Recommended for Growth Portfolio

Company Description:

Pre-Paid Legal Services designs legal expense plans for families, small businesses, and other groups. Customers pay up to $25 a month for access to lawyers at pre-paid or discounted rates. Its more than 600,000 membership contracts offer services such as audit protection, traffic violation defense, will preparation, document review, and unlimited phone access. Pre-Paid Legal uses a multi-level sales structure in which contract owners sell to friends and associates, who often become salespeople themselves. The company is expanding into Canada and into corporate benefit plans.

Profitability:

PPD's profitability is excellent and improving. Currently its gross margin is at 89.9%, generating an after-tax ROE and reinvestment rate of 36%. EBITDA margin is 27.8%. Profitability has remained consistent through time and could improve near term.

Growth:

Pre-Paid Legal has experienced a very high revenue growth (51%) and earnings growth (55%) in the past five years and is expected to continue doing so in the future. The big-future growth of PPD is expected to come from its employee benefit program that provides pre-paid legal services for employees of major corporations similar to medical employee benefit plans. In the fourth quarter of 1999 the company added 148,928 new members. By December 31, 1999, the company had 827,979 memberships in force as compared to 603,017 memberships at December 31,1998. Moreover, there is strong membership retention at 75%. It is expected that increasing acceptance of pre-paid legal services as an employee benefit and additional new members should help fuel membership expansion by nearly 40% in 2000. Analysts predict earnings-per-share growth of 32% for 2000. The potential for legal insurance as a standard employee benefit in the current competitive employee marketplace is substantial. PPD is also expanding its business into Canada.

Balance Sheet:

Despite repurchasing $29.4 million worth of outstanding shares in 1999, PPD still has $30 million in cash on their balance sheet to be used for further stock repurchases. High asset turnover is driven by the fact that they have no accounts receivable (they collect all premiums in advance), and they have no inventories. PPD's fixed assets are relatively small, and PPD has no long-term debt. PPD's cash alone covers more than half of all liabilities.

Focus on ROE:

PPD's recent quarter generated an ROE of 38.3%, with ROA at 22.1%, and ROI at 29.7%. The basis for their high ROE is their exceptional gross margin and their asset turnover. PPD's ROE has been stable over time. It has been over 30% for the last 5 years.

Stock Repurchase Program:

The company spent $29.4 million during 1999 to repurchase 1.2 million shares of its outstanding stock. With over $30 million of cash on their balance sheet, the company is expected to continue their stock repurchase program in the year 2000.

by Vaidas Petrauskas

Invesco Global Health Sciences (GHS)

Investment Thesis — Recommended for Growth Portfolio

Company Description:

Invesco Global Health Sciences is a closed-end mutual fund whose sole purpose is to invest all assets in U.S. and foreign companies principally engaged in the development, production, or distribution of products or services relating to the health sciences. Pharmaceuticals make up 57.61% of their portfolio while health care makes up 29.15% and biotechnology makes up 8.47%.

Recommendation	Buy
Current Price	$15.25
NAV	19.52

Industry:

One of the goals of the pharmaceutical industry is to come up with blockbuster products that will be the large cash cows of the company until patent expiration. The key to developing blockbuster drugs is to pour money into research and development. The more money that is spent in R&D the better chance the company has of coming up with a blockbuster. Some of the positives of the industry include the fact that the number of patients aged 50 and over is set to grow by 30% in the next 15 years. People over 50 account for 80% of all prescription sales.

Margin of Safety:

The fund is currently trading at a 13% discount to its NAV of $19.52. Moreover, the stocks in the fund are trading at a discount to their historical price-to-earnings ratios. These two variables provide a modest margin of safety in a growing and fundamentally sound industry.

Risk:

Analysts at Anderson Consulting estimate that in order to keep up with the industry's growth rate, each company within the industry will have to launch five significant NCEs (New Chemical Entities) per year with a sales potential greater than $350 million per year. Currently only 8% of new product launches reach sales of $350 million per year and the top drug companies were averaging only .45 NCEs per year between 1990 and 1994. Many of the companies in the portfolio will lose numerous drugs off patent in the next five years. We feel that the drug and health service industry is a very difficult and time-consuming industry to study. It is very hard to narrow the field down to one strong company among the numerous pharmaceutical companies that exist. Therefore, it is our recommendation that an investment in Invesco, which has the expertise to allocate funds to superior companies, is the correct choice for our portfolio.

by Russell Kelton, MBA

Global Communications (GBLX)

Recommendation	Buy
Current Price	$213.25
Current Yield	8.2%
Dividend	6.75%

Investment Thesis — Recommended for the Income Portfolio

Company Description:

Global Crossing is creating the world's first independent, global fiber optic network designed to provide telecommunications carriers and internet service providers with a seamless network connecting top cities for telecommunications traffic worldwide. The company is included in both the S&P 500 and the NASDAQ 100.

Margin of Safety:

GBLX's coverage of preferred dividends and bond interest from cash flow from operations (CFO) provides the preferred shareholder with a very comfortable margin of safety. For fiscal year 1999, the firm's cash flow from operations covered all these 2.13 times. Nearly all of the firm's cash flow was derived in the fourth quarter of 1999 as its global network really began to generate the kind of sales that the firm had envisioned as it moved closer to completion. Based on our estimated 2000 cash flow estimates, we conclude that CFO could cover interest and preferred dividends ***nine*** times.

Latest Technology:

The Global Crossing Network of terrestrial and undersea systems offers customers the convenience of "one stop shopping" on an open and equal access basis worldwide. The Global Crossing Network is being engineered and constructed using the latest in fiber optic technology, including self-healing ring structures, erbium-doped fiber amplifier repeaters, wavelength division multiplexing (WDM), and the use of redundant capacity to ensure instantaneous restoration. This approach allows Global Crossing to offer:

- Competitively priced capacity relative to existing alternatives;
- Unsurpassed network reliability;
- Substantially more capacity than existing systems; and,
- Rapid upgrades to an undersea facility, *without* physical modification of the submerged portion of the system.

Extraordinary Growth:

Global Crossing is poised to stay ***ahead*** of the future. In recent years the telecommunications industry has experienced extraordinary growth. Looking forward, Global Crossing has taken strides to stay ahead of change and maintain a record of superior quality. For example, the current structure and design of the firm's undersea fiber optic network makes it readily convertible to an optic technology without significant underwater upgrades. Additionally, it will still maintain the competitive advantage of being the only independent provider of worldwide fiber optic access.

Preferred Fundamentals - Strong Rating:

Preferred fundamentals, combined with a strong rating, make this an attractive buy. The 6.75% dividend on its $250 par value translates into a current yield of 7.2% for the preferred shareholder. With a rating of B1, we have confidence in this firm's future outlook and its ability to make these payments. In addition to sound fundamentals, this convertible preferred provides an option play on the company's common equity.

by Vincent J. Fries, MBA

THE TELECOM INDUSTRY AND YOUR PORTFOLIO

In an increasingly complex world of investing, where words like bandwidth, networking, cellular, digital, optical, satellite, and the like are thrown around as loosely as words like cat and dog, the informed investor must be able to decipher this technical jargon that was previously reserved for communications gurus and computer geeks. The competitive landscape of the telecommunications industry, referred to here as "The Telecosm", encompasses a vast number of standards, systems, and emerging technologies. The telecosm is a potentially risky place in which to conduct business, and furthermore, an even more challenging arena to establish oneself as a ***successful*** investor. However, in light of macroeconomic trends toward continued innovation in communications technology, the telecosm is a sector that offers tremendous growth potential and should be included in most investor portfolios. So how does the average investor know what companies to invest in, or just as importantly, what technologies represent the future of the industry, and consequently, real growth potential? To answer these questions, the investor must first gain a feel for the industry, its existing standards and technologies, and the current players in the game. Only then can he create a vision for the future and make his bets accordingly. This piece is designed to give the investor a snapshot of the current industry to enable him to begin to craft this vision.

The biggest buzzword in all of investing today could be "bandwidth". What is bandwidth? Why is it such a big deal? Stated very simply, bandwidth is the maximum capacity or volume that can be carried on a given data delivery medium. Examples of such media currently present in the telecosm are fiber optic media, digital cable media, and digital phone line media. The most dominant of these media, and the clear leader in the marketplace in terms of use and growth potential, is fiber optics. The majority of data delivered in the world over the internet, company intranets, or other networks is carried over fiber optic cables. Currently molding this fiber optic infrastructure is the industry's standard architecture known as the Open Systems Interconnect model. This model allows for data to travel across many systems (often held by many different owners) to get from point A to point B and offers compatibility between these systems. The vehicle that provides this compatibility is Synchronous Optical Networking, referred to simply as SONET. SONET employs sophisticated electronic hardware organized in seven functional layered rings along the fiber optic cable. Each of these rings assists in moving and regenerating the data along the fiber optic media and facilitates its eventual delivery to the end user. Companies like Cisco (CSCO), Nortel (NT), and Lucent Technologies (LU) are the major players in SONET technology.

Currently challenging this industry standard, however, is the theory of light latency, and the new standard that emerges from it. Light latency refers to how quickly the first bit of data can be moved along fiber optic cable via the speed of light. Proponents of this theory claim that bandwidth, or total volume, is not the major determinant of the speed of delivery. Rather, it is the light latency constraints created by SONET that currently limit the fiber optic systems' efficiency. These proponents advocate the use of an all-optical network, or network without electronic components per the SONET standard. In this system, Wave Division Multi-Plexing, or WDM, would replace SONET. WDM is an emerging technology that, by employing optical switches or cross connects, vastly multiplies the number of signals carried over existing fiber optic cables, and eliminates the need for the seven-layered electronic regeneration rings used by SONET. Emerging players in this technology are Mirror Image (Private), Corvis (Private), Cienna (CIEN), and JD Uniphase (JDSU).

George Gilder, editor of the Gilder Technology Report, is recognized as a very successful analyst in this industry and is a strong believer in the growth potential for WDM and the all-optical network. In addition to openly professing this vision, he also coined a term that defines a new mini-industry within the telecosm: ***Storewidth***. Storewidth very simply refers to how new storage media and more efficient directory and network designs will emerge to take advantage of the efficiencies gained in the ***all-optical*** environment. Specifically, those companies specializing in Networked Attached Storage (NAS) are expected to succeed in replacing traditional brick and mortar type networks.

So where is one to invest? Should one stick with the very expensive heavy hitters like Cisco and Lucent, or will they be hung out to dry when WDM companies like Corvis and Cienna successfully mold the industry into one of all optics? Or conversely, will these start-ups fail, and SONET continue to rule? It is not my place to say. As always, diversification is a must. But it is every investor's best interest to construct a vision of the future. Accordingly, investments should be focused in fulfilling this vision. It is in this fashion that the investor can succeed in the telecosm.

by Vincent J. Fries, MBA

Indexing Versus Active Management
The Case for Index Investments — *An Opinion*

An index fund is a mutual fund that invests in all stocks upon which a market index is based. Investment advisors often direct beginning investors to index funds for three reasons. First, a fund's performance is based solely on the index itself, not on the decisions of a fund manager, and index funds nearly always outperform active portfolio managers. Second, the expense of investing in an index fund is low because passive index fund managers charge only small management fees. Finally, index managers make relatively few trades, nearly eliminating the commission cost involved in trading.

Probably the best known index fund is the Vanguard Index 500 (VFINX), a no-load fund that mirrors the S&P 500. S&P 500 indexes are market-value weighted, which means that the number of shares outstanding to calculate the index multiplies the stock prices of the companies within an index. Consequently, the largest companies have the greatest influence on an index's movements. The S&P 500 is designed to emulate the market as a whole and is a popular benchmark for measuring portfolio performance and a model for a growing number of index mutual funds.

Long-term data shows that funds run by stock-picking managers find it very hard to beat indexes, especially the S&P 500. Investors poured money in S&P 500 funds late in the 1990's, a time when the major indexes were beating over 80% of managed funds. More recently, however, money has been flowing into hot sectors such as technology. Individual investors are favoring more focused portfolios that are industry specific. One would do well to remember three things when purchasing individual stocks. The first is to track your performance. Don't remember the winners, forget about the losers and do not average them together. The second point is to diversify and thus, spread out your risk. The last point is to realize that a diversified portfolio will not do as well as the flashiest stocks...but it won't do as badly as the worst performers either.

As a side note, the fast-growing index fund industry has been assigned some of the blame for high volatility in the recent market. To keep their portfolios in line with their weightings, index-fund managers have to buy shares when the prices are rising and sell them when they are falling, amplifying volatility. It should be noted that these purchases and sells are only related to new inflows or outflow of funds.

Enhanced indexing strategies have recently become popular as a new form of passive investment designed to enhance returns. The increase in the use of indexing over the past decade has been caused by investor frustration over paying for value-added management and receiving index or sub-index returns. Efficiency, growth and liquidity have all reduced the value of the traditional value-added strategies. Enhanced indexing seeks to achieve above-benchmark returns by taking small and quantifiable risks in an indexed portfolio setting. However, many of these enhanced index strategies are really disguised active management strategies with ***additional*** risks and constraints. The primary issue in finding a "low-risk" enhanced index strategy is defining its source of value-added costs and risk controls.

As a conclusion, an indexing strategy has traditionally delivered adequate returns without entailing the expenses of value-added management. While the most passive investor will adopt such a strategy, an enhanced indexing strategy may deliver superior returns while minimizing risk. Most investors would do well to adopt an indexing strategy, or some form thereof, for a portion of their portfolio and seek active management for the remainder.

by Michael Portnoy

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Yield Curve Inversion — *An Opinion*

In late January the treasury yield curve inverted for the first time since 1990. Talks of long bond buybacks by the Treasury drove the price of the long bond up and drove yields down. At the same time the price of short-term notes remained strong and has at the time of this article created a spread of almost 100 basis points between the 30-year bond and the two-year notes.

This change has the ordinary investor wondering, "What does this mean for me?" Many believe an inverted yield curve is a sign of bad times to come for the economy and the equity markets. Yield curve inversions are caused by overly restrictive monetary policy, peaking of bond yields, economic slowdown, and even earnings disappointments. Any one of these could lead to a major correction in the equity markets.

However, today's market has shown that historical trends are often misleading. Had the Treasury not announced the long bond buyback plan, the 30-year/2-year spread would likely still be positive. So there is a glimmer of hope in this inverted yield curve. Over the past 18 years the yield curve has become entirely flat or inverted 5 times. In the three months following this phenomena equity markets have shown an average return of 3%. In the six months following, returns have been 7% and over the following twelve months returns have been an outstanding 16%.

While it appears that stocks may survive the inverted yield curves, bonds should flourish. On average the 10-year notes fell 45, 64, and 113 basis points in the 3, 6 and 12-month periods following a yield curve flattening or inversion respectively. It is evident that the flattening/inversion of the yield curve leads to some concern for equity holders and should provide bondholders outstanding returns. This yield curve condition poses a threat to the recent perfect conditions in the United States financial markets.

by Cory Petcoff

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Visiting George Professor of Applied Investments

Since graduating from Miami University in Ohio with a B.S. in Accounting, Prof. Castle has worked in investments and banking for thirty years. He has an MBA from Babson College and attended the Stonier School of Banking at Rutgers University. After performing economic research for the National Security Agency, Prof. Castle worked for Bank of Boston in the Investment, International, and Merchant Banking divisions. Following the Bank of Boston, he worked for Feeley & Willcox, a Wall Street research and investment company. In 1994, Prof. Castle moved to the Middle East as a manager and teacher for the Abu Dhabi Investment Authority, returning to his own firm, Andover Research, in 1996.

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Check out our new George Investments Institute web site and Prof. Mallett's Personal Finance site:

http://www.stetson.edu/departments/finance/institute.htm
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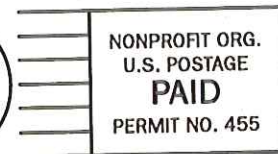

Comments & Disclaimer

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 million dollars. Insights are gained through contact with professionals such as Robert Stovall, CFA, of Stovall/Twenty-First Advisers, Inc.

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