



DISCIPLINED
GROWTH
INVESTORS

LOOK BEFORE YOU TURN

June 28, 2002

Over thirty years ago I was a Naval officer. My entire Naval career (four years) was served on two Pacific-based destroyers, armed ships over 400 feet long and very fast. I still have vivid memories of those years. It is not often a young man of 25 years old is given the privilege of driving a large ship all over the Pacific Ocean. Two memories really stand out. One is when we steamed at night by ourselves a thousand or more miles from any shore. The ocean would be dead calm and the ship would swish through the waters. Because we were so far from land, there was little pollution to obstruct the view. I still can remember the night sky was flooded with stars. The other is when we would trail aircraft carriers at night while the carrier conducted flight operations against North Vietnam.

It is tradition in the Navy to stand four-hour watches. Typically one in three nights I stood the “mid-watch”, which lasted from midnight to four o’clock in the morning. As a “senior” officer at the age of 25 I was often the commanding watch officer on the bridge with the captain asleep below along with 240 other lives.

Night aircraft operations on a carrier were a thing to behold. Every 1.5 hours a set of airplanes would take off and land. My admiration for those pilots was great. Most nights there would be a haze restricting visibility. Since we were far from land, it often seemed as though we were operating in a dark tunnel. In order to conduct flight operations the carrier would speed up, slow down, and change course.

The mission of my destroyer was to trail the carrier at close distance in case an airplane went into the water. Aircraft carriers are gigantic. Trailing a carrier was roughly similar to following a semi-truck trailer with a VW bug. There were two instances of a carrier and destroyer colliding during the Vietnam War; in both cases the carrier was virtually unharmed and the destroyers fared badly. In one case 75 lives were lost. Often at night we only had our radar and some carrier lights to keep track of the carrier. The carrier occasionally neglected to signal a course or speed change.

What does this story have to do with investing? Early in my Navy career I developed a habit of walking out on the wing of the bridge and looking before we turned in that direction. Why? As the commanding watch officer I typically had numerous men reporting to me; it was easy to become distracted. By always looking before I ordered a turn, I knew what was in the direction of our turn. As I gained experience I came to realize that this little action was perhaps the most fundamental step in operating a destroyer safely.

As a serious pilot, I follow a similar discipline. I never cross any runway before I look both ways.

Investing presents a similar challenge. A contested presidential election, terrorist attacks, recession, accounting/fraud issues, and the collapse of the telecomm industry threaten to distract us. During these periods all investors experience significant pressures. The key to successful investing is to maintain a consistent, careful discipline at all times, regardless of the current economic/market conditions.

With this piece we are going to cut through the flood of general market and economic information. We are also going to describe for you our way of maintaining focus during these uncertain times, i.e., how each time before we make a decision we go out on the wing of the bridge and look in the direction of the turn.

There are four large issues facing investors today. The first three garner much media attention and may distract investors from more substantive issues. The fourth issue, involving telecomm service provider debt, is serious.

- 1) Economic Recovery. There is nearly unanimous opinion that the economy is recovering. Now the debate has shifted to the strength of the recovery. We believe the debate is misplaced. Not only is it nearly impossible to forecast how strong the recovery will be, it is not necessary to do so to form a reasonable investment strategy. It is sufficient to know the economy is recovering.
- 2) Terrorist Attacks. The war on terrorism continues. It is not possible to forecast the course of the war. We note the terrorists are now sending teenagers into Israel to conduct suicide bombings. If we can learn about our enemies by watching what they do, the current tactics reflect little coherent strategy.
- 3) Accounting Issues. With the collapse of Enron, transparency of financial statements has become a fashionable topic. The stocks of companies with aggressive and complex financial statements are being marked down in the stock market. This is proper. Companies are responding by offering greater disclosure. The clean companies will survive and prosper.
- 4) The Telecomm Implosion. This is a big issue with the potential to cause major economic problems if not handled correctly. The problem is that massive technological change has stressed an industry unused to such change. We will discuss this in depth below.

According to Baseline, here are the latest available financial statistics on the ten largest phone companies in the United States:

<u>Company</u>	<u>Market Cap</u>	<u>Book Value</u>	<u>Goodwill</u>	<u>L/T Debt</u>	<u>S/T Debt</u>
Verizon	\$109.5 Bil	\$31.0 Bil	\$45.1 Bil	\$46.5 Bil	\$16.3 Bil
SBC	\$104.4 Bil	\$32.4 Bil	\$3.5 Bil	\$17.1 Bil	\$9 Bil
BLS	\$57 Bil	\$19.1 Bil	\$4.3 Bil	\$14 Bil	\$5 Bil
AT&T	\$49 Bil	51.6 Bil	\$67.4 Bil	\$40.5 Bil	\$12.9 Bil
At&T Wire	\$24.2 Bil	\$19.2 Bil	\$17.8 Bil	\$6.6 Bil	\$88 Mil
AllTel	\$15.0 Bil	\$5.5 Bil	\$3.4 Bil	\$3.9 Bil	\$52 Mil
Sprint	\$14.1 Bil	\$24.5 Bil	\$1.5 Bil	\$5 Bil	\$777 Mil
Sprint PCS	\$10.9 Bil	\$912 Mil	\$7.5 Bil	\$13.2 Bil	\$2.3 Bil
Qwest	\$4.6 Bil	\$35.9 Bil	\$34.5 Bil	\$21.4 Bil	\$5.1 Bil
Worldcom	N/A*	\$57.9 Bil	\$50.5 Bil	\$30 Bil	\$172 Mil
Total	\$388.7 Bil	\$278.1 Bil	\$235.5 Bil	\$198.2 Bil	\$52.9 Bil

*At the time of this report Worldcom stock has been halted from trading.

The telecomm industry is large. The industry carries a high level of debt. Since goodwill exceeds book value, it is logical to conclude that cash flow is the only true means by which the debt holders will be made whole.

This industry is large in revenues. The pace of technological change, competition and growth in bandwidth demand is forcing the companies to maintain high capital spending budgets. According to Baseline, here is the data:

<u>Company</u>	<u>Annual Revenues</u>	<u>Depreciat ion</u>	<u>Capital Spending</u>	<u>Capex/Re vs</u>
Verizon	\$67.2 Bil	\$13.6 Bil	\$17.4 Bil	25.8%
SBC	\$45.9 Bil	\$9.0 Bil	\$11.2 Bil	24.4%
BLS	\$27 Bil	\$4.8 Bil	\$6.0 Bil	22.2%
AT&T	\$55.7 Bil	\$9.3 Bil	\$9.3 Bil	16.7%
At&T Wire	\$13.6 Bil	\$2.5 Bil	\$5.2 Bil	38.2%
AllTel	\$7.2 Bil	\$1.1 Bil	\$1.4 Bil	19.4%
Sprint	\$17 Bil	\$2.4 Bil	\$5.3 Bil	31.1%
Sprint PCS	\$11.4 Bil	\$2.1 Bil	\$3.7 Bil	32.5%
Qwest	\$19.7 Bil	\$5.3 Bil	\$8.5 Bil	43.1%
Worldcom	\$21.3 Bil*	\$5.9 Bil	\$7.9 Bil	37.1%
Total	\$286 Bil	\$56 Bil	\$75.9 Bil	27.5%

*At the time of this report Worldcom has announced it has capitalized several billion dollars of current expenses as capital spending, thereby inflating reported earnings.

In an attempt to conserve cash, the industry is cutting back capital spending plans to about \$45 billion this year. This cutback increases the odds that the major telecomm providers will lose important technical proficiency in a competitive landscape which has required increasing competency since the Telecommunications Act of 1996. This legislation attempted to deregulate a former utility-like industry, consisting primarily of Baby Bell companies and long-distance carriers. As with most legislation the Act failed to account for technological innovation. Since the passage of the Act, wireless phones and cable TV have emerged as viable choices for home voice and data service. The Internet has also emerged as a major pipeline of data for home and business. No one telecomm service provider owns a network able to provide a full, competitive range of services, so competition is emerging from companies such as AOL and Microsoft. The Federal Communications Commission is vainly trying to regulate this industry. Continued technological innovation is likely to erode the value of the fixed assets for many telecomm service providers.

While the bankruptcies of the dot.coms, CLECs, and the new long-distance carriers were spectacular, their brief life and relatively small market values did not endanger the economic recovery. The brevity of their existence meant that their unstable market values were not institutionalized, i.e., there was little debt created against their market values. The large telecom companies are different; after decades of seemingly rational regulation a lot of debt has been created against the companies' assets.

Now, two of the big phone companies are cracking. The stock market values of Qwest and Worldcom have collapsed; the combined equity market value of both entities is \$4.6 billion while their debt outstanding is \$56.5 billion. These two companies are unlikely to survive in their present form. The demise of one or more of them could set off another round of bank credit tightening. The danger to the economic recovery occurs when a credit tightening offsets Fed easing.

We would not be surprised if the Federal government intervened in the telecom credit cycle. The Federal government could intervene directly or could clean up the mish-mash of federal regulation over the industry.

Our Investment Strategy

Our investment strategy at any given time must incorporate the "look before you turn" discipline so necessary to the safety of a Naval ship. The most fundamental step to a successful endeavor in the stock market is to investigate thoroughly those companies you decide to own. The Oxford American dictionary defines "investigate" as a verb, i.e., to make a careful study of (a thing) in order to discover the facts about it. It is also noteworthy that "invest" and "investigate" occur in sequence in the dictionary.

This is why we spend the bulk of our investment effort at DGI investigating our companies, those we own today and any we might want to own. We seek to uncover and analyze every important piece of public information on each company.

The second fundamental step, which turns an investigation into a successful investment, is to determine a fair price for that investment. It is possible to have conducted a thorough investigation but to pay too much for the security.

The process of valuing a company involves both subjective and objective analysis. We spend a lot of time seeking to understand how a company generates cash. We try to put ourselves in the shoes of the management of the company. We seek to compute what we would pay if we were to buy the whole company. We compute the earnings per share of the company and form a reasonable estimate of the likely earnings progress over the next seven years. We put the company in a time-tested valuation formula, developed by the founder of public company investment research, Ben Graham. We cross-check our work by other time-series valuation data.

If we cannot figure out what a company is worth with sufficient accuracy, we do not buy it.

The last step is easy. We compare the stock price to our estimate of what the company is worth today (we call this "intrinsic value") and what it could be worth in seven years. For mid-cap stocks, if a given stock price will yield a return of 12% or better per year for seven years the stock meets our criteria for investment. For small cap stocks we desire a 15% or better return per year. We have found that not every one of our companies will perform as we expect and those stocks' performance will be disappointing; we have also found that some companies will perform better than we forecast and their stocks will offer great returns.

Our approach has some strengths and weaknesses. A primary strength is our ability to avoid being distracted by the macroeconomic events of the day. My own investment experience spans over forty years; throughout those years many national and international crises have occurred. The list includes but is not limited to the Cold War, Kennedy assassination, Vietnam War, race riots, the Yom Kippur War, Nixon resignation, oil embargoes, 20% interest rates, the energy sector collapse, the farm sector collapse, the Persian Gulf War, and the 9/11 terrorist attacks. Indeed, as the stock market declines in response to large macroeconomic or political events, our focus enables us to understand and quantify that purchasing stocks at low prices enhances the expected future return. Short-term market volatility caused by such events is advantageous for the long-term investor.

A primary weakness of our approach is that stock prices may disconnect from the intrinsic value of the companies for uncomfortably long periods of time. While we believe that stock prices and intrinsic values converge over time, we have little or no ability to gauge how fast they will converge. Our model requires patience.

What does our work say about today?

On September 11th, two hijacked airplanes struck the two World Trade Center Towers. This shattering political event closed the U.S stock market for four days and threatened the economic and political vitality of the United States. The uncertainty surrounding this event caused stocks to fall.

In my investment career I can only recall a few events with the kind of galvanizing clarity like 9/11. Only the 1973 Arab oil embargo, the 1987 market crash, and the invasion of Kuwait by Iraq possessed similar incandescence for investors. On 9/11 we shared a mutual horror and woke up to the reality of terrorism. On 9/11 the movement towards free trade awakened by the fall of the Berlin Wall was threatened.

When the stock market re-opened for trading on the following Monday, we saw panic selling similar to the Persian Gulf crisis in 1990 and the Asian economic crisis in 1998. The panic selling reached a crescendo on September 21st.

After 9/11 we chose not to focus on the terrorist attack and the macroeconomic events but rather to systematically analyze a representative list of our holdings. We published a study which estimated the long-term returns for eleven of our mid-cap holdings. The eleven stocks were not uniquely selected. Our estimates were based on a post-terrorist world in which growth rates would be more subdued than before. Our work showed extremely high expected returns (20% per year or better) from this list. Accordingly, we kept our portfolios in a fully invested position.

Since 9/11 the market has rallied and then declined. Bell weather stocks like GE and many tech stocks have declined to lower prices than the troughs associated with the panic selling around 9/11. Importantly, interest rates have declined. The 90-day Treasury Bill yields 1.66%, while the 10-year Treasury note yields 4.76%. The economy has begun to recover.

What does our work show? You may recall that we estimated GE's value last fall at \$26-28 per share; the stock was then selling for \$40. The stock is now \$29 per share. Our work now shows that an investor in GE at today's price could reasonably expect to earn about 7% per year over the next seven years; this is significantly improved from the breakeven returns which GE stock offered investors last Fall at \$40 per share. The return to investors for GE today is also significantly superior to the 1.66% and 4.76% available from Treasury Bills and Notes, respectively.

GE is now fairly valued, i.e., offers a fair return to investors today.

What about our stocks? We continue to see very high expected returns under reasonable assumptions from our investments. In particular, we see that the panic selling of technology stocks is as irrational as the panic buying of two years ago. The stock market is thrusting these stocks away at prices which should yield very high long-term returns to those who have investigated these companies thoroughly.

In closing we need to offer two caveats. First, we do not expect the economic problems facing the United States to be solved quickly nor do we expect a clear end to the war on terrorism. During periods like this there is heightened stress on the U.S. financial system; we believe the prudent course is to bet that the U.S. economy will recover. We also expect that while our stocks offer exceptional returns, our returns will come in the midst of a continual barrage of negative commentary by the national press and by Wall Street analysts.

To receive a complete list and description of Disciplined Growth Investors, Inc.'s composites and/or a presentation that adheres to the AIMR-PPS Standards, contact Cynthia Lennie at Disciplined Growth Investors, Inc., 100 South Fifth Street, Suite 2100, Minneapolis, MN 55402; telephone: 612-317-4108; fax: 612-904-2546; e-mail: cindyl@dginv.com. The information contained herein has been obtained from sources that we believe to be reliable, but its accuracy and completeness are not guaranteed. DGI reserves the right at anytime and without notice, to change, amend, or cease publication of the information. The web site has been prepared solely for informative purposes. It is made available on an 'as is' basis. DGI does not make any warranty or representation regarding the information.