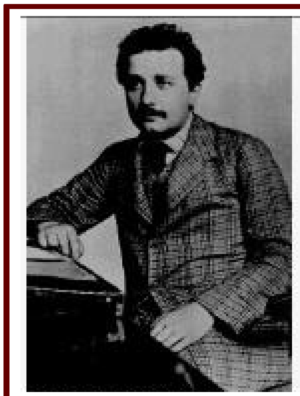
Angeles
INVESTMENT ADVISORS

FIRST QUARTER 2002 COMMENTARY **APRIL 2002**

RELATIVITY

The accompanying photograph is of a non-descript, undistinguished, 26-year old clerk in the Patent Office in Bern Switzerland who, in 1905, submitted a paper called *On the Electrodynamics of Moving Bodies* to a leading German physics journal. The paper theorized about mass and energy in what was called a Special Theory of Relativity, and formulated the equation $e=mc^2$. Special Relativity postulated that time and distance were not absolutes, but were dependent on the motion of the observer. Obviously ridiculous. Ten years later, Special Relativity was extended to include gravity with time and distance, and was called the General Theory of Relativity.


Courtesy: California Institute of Technology

The central idea in General Relativity is the Equivalence Principle, which states that gravity pulling in one direction is exactly equivalent to an acceleration in the opposite direction. So if gravity is equivalent to acceleration, and if motion affects measurements of time and space, as Special Relativity said, then gravity also affects time and space. So the closer we get to a large mass, like the sun, our watch will tick slower and the angles of a triangle won't add up to 180 degrees.

Of course, none of this makes any sense, but on 29 May 1919 a solar eclipse confirmed that the light rays from distant stars were indeed deflected by the gravity of the sun in precisely the amount predicted by General Relativity. When the results of the observation were announced in November of that year, every major newspaper in the world carried the story in banner headlines. That obscure patent clerk was hailed as the greatest scientist since Isaac Newton, and the world now knew the name Albert Einstein.

Readers of this letter know that the changing investment environment has been a theme of ours over the past year or so. Previous letters have outlined why we thought the Great Bull Market was over, described the period of transition we are now in, and commented on the investment implications of these structural shifts. One important implication we've discussed is portfolio diversification, and specifically in this context, identifying assets that provide acceptable returns with reasonable certainty. This led us to asset classes such as real estate and convertible securities, both of which rely more on high cash flow than on capital appreciation for total return.

We also lowered our expected nominal returns for most asset classes, not because stock prices have declined—that might otherwise increase expected returns—and not because of some pending economic gloom. As we will see in a moment, the recession is over and recovery has begun. Rather we note a number of factors, political and economic, that would likely limit the strong growth we usually see following recession.

An environment of moderate returns across asset classes causes consternation among institutional investors. Pension funds that may not be able to meet actuarial return assumptions will have to increase contributions and/or cut benefits, neither of which is appealing. Non-profit organizations may be faced with either raising funds, cutting absolute spending or dipping into corpus, also unattractive alternatives.

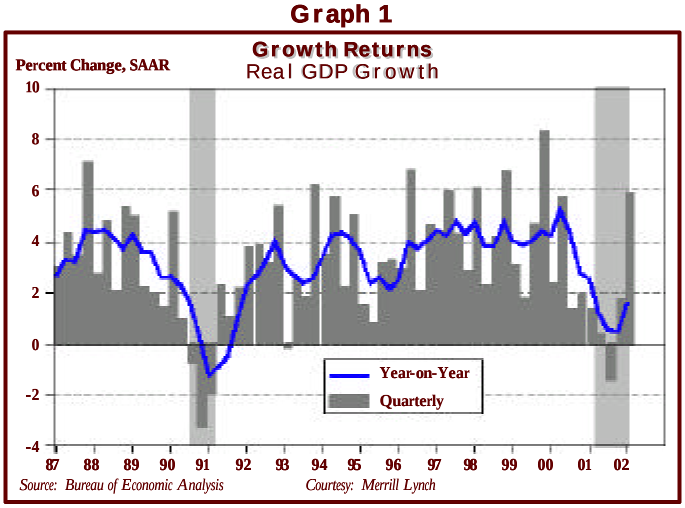
A recent study by Milliman USA noted that the pension funds of the nation's 50 largest corporations lost $140 billion between 1999 and 2001, about 90% of the surplus that had been realized over the Great Bull Market.

Still, the average assumed return in 2001 for these 50 funds was 9.4%, producing expected returns of $54 billion when, in fact, these plans lost $36 billion last year. A one percent drop in the assumed rate would have reduced corporate earnings by $5.7 billion for these fifty companies. The problem is particularly acute at certain companies. For example, 63% of Unisys' 2000 earnings came from pension income. IBM, Lockheed, Lucent, Hasbro and many others all reported that more than 10% of their total earnings were pension related. This will now be reversed. General Motors' pension is under funded by about $7 billion, and pension expense could reduce EPS by $1.50 this year. Proctor & Gamble is looking at a pension shortfall of almost $1 billion, and Coca-Cola, Texas Instruments, AMR and many other blue chip companies all face hundreds of millions of dollars of pension under funding.

A consequence of these concerns is a philosophical shift among investors, at the margin, from relative performance to absolute performance. This shift may be manifested in multiple ways, but the philosophical core to seek assets that can achieve acceptable returns with greater certainty rather than try to outperform a benchmark. Traditional fixed income is unlikely to achieve acceptable returns, and traditional equity is unlikely to provide much certainty. This requires us to broaden our investment perspective. As Einstein said, "few are those who see with their own eyes." We'll come back to this topic a little later.

There was nothing relative about the US economy in the first quarter of 2002. Real GDP growth jumped at an annualized 5.8% rate, the best showing in over two years (see graph 1).

Graph 1



Inventory liquidation slowed to $36.2 billion from a record $119.3 billion in the fourth quarter, and this added 3.1% to the first quarter GDP spurt. Military spending soared 19.6%, the biggest jump since 1967. But final demand was solid, up 2.6%, and consumer spending rose at a 3.5% rate. Those that argued the American consumer was swamped with debt, burdened with declining income and wealth and poised to slash spending didn't look at history. Post-World War Two, the American consumer has never had a year where nominal spending was negative, and only in the inflationary spikes in the 1970s did real consumer spending growth dip slightly below zero. As business retrenched this past year, the consumer kept the economy going.

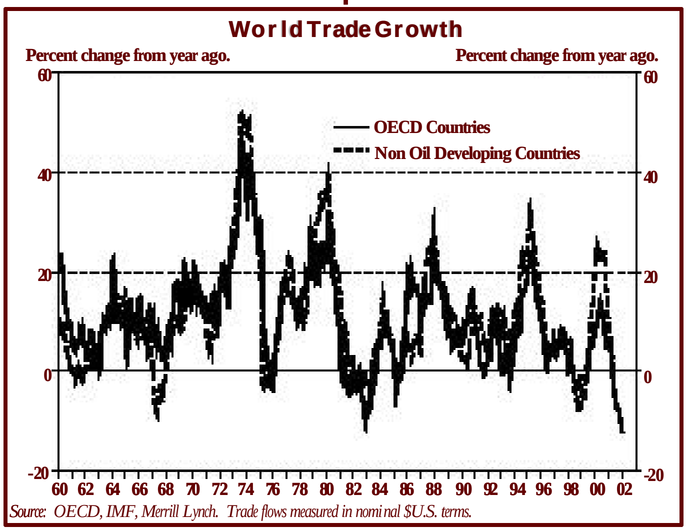
Perhaps the most impressive feature of the economic data has been the strength of productivity growth. In the recessions since 1970, non-farm business productivity fell at an average annualized rate of 1%. In the fourth quarter of 2001, productivity jumped 5.2% (annualized), and the 1Q02 GDP data suggests a surge of 7% in the first quarter. This is unprecedented strength, and we clearly cannot maintain this pace. But rising productivity is critically important to the economy, because it allows businesses to expand profits, a necessary precursor to capital investment, and raises income for all of us.

If we have an economic concern, it is our relationship with the rest of the world. Clearly, there's a political dimension to this, made more acute by our active engagement in the Mid- and Near East. But it's been a long time since some of us worked in government, and we'll avoid the quagmire of political analysis by simply noting the important non-economic aspects of world relations. Our economic concern has two facets: trade balance and trade growth.

The U.S. has run a trade deficit for as long as we can remember. The current account balance includes trade and capital flows, so it's a broader measure of our relationship with the world, and this deficit is likely to hit 4.6% of GDP this year and 6% of GDP in 2003 (by some estimates). The benign view of the current account deficit (held by Paul O'Neill, et al.) is that a current account deficit is merely an expression of superior investment opportunities in the U.S. versus the rest of the world. Rather than being a weakness, it is a sign of strength of the American economy that foreigners continue to pour money into our assets. Naysayers have warned that these deficits will lead to impending disaster for the better part of three decades and they have yet to be right.

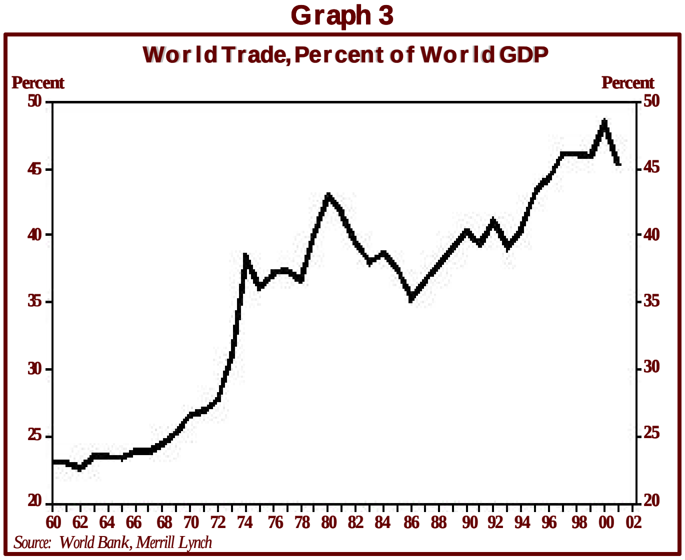
But just because critics have been wrong doesn't mean there is no risk. In the past, large deficits have been corrected by some combination of a weaker currency, rising interest rates and slower economic growth. This is not a prediction, rather a concern we note, the investment implication of which is that non-dollar assets would

Graph 2



outperform dollar-based assets. That would be a reversal of recent experience, highlighting one reason why we remain committed to an international allocation in our portfolios.

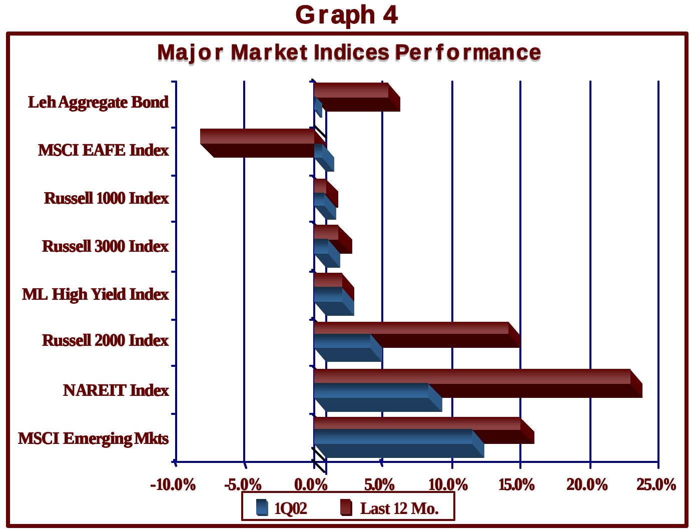
Graph 3



More disconcerting than the balance is the growth of world trade. The cyclical component has been pretty harsh this past year, with the sharpest contraction in world trade in more than four decades (see Graph 2). As the world emerges from recession, this cyclical downturn will reverse, and (we hope) the long-term secular trend will re-assert itself (see Graph 3). Trade volumes have grown at an average annual rate of 6.4% since 1960, nearly twice as fast as world GDP growth (3.3%). Trade is an unambiguous good, and an important reason for rising standards of living. Let's hope the imposition of tariffs on steel and lumber are the exceptions to the rule of expanding trade.

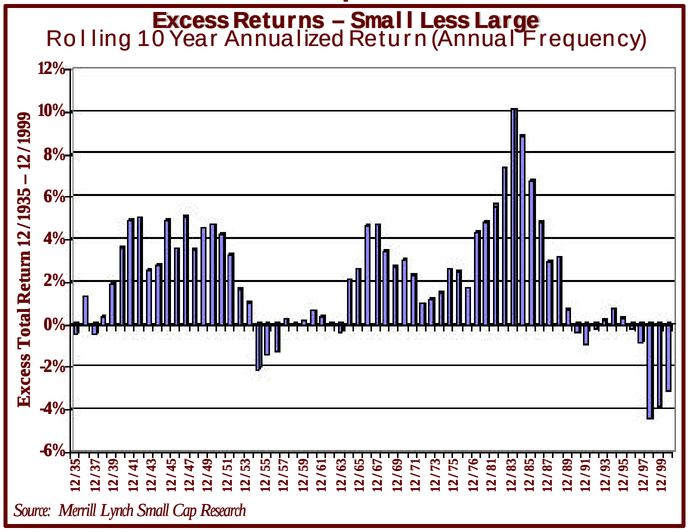
In a rare alignment of perplexity, U.S. stocks, international stocks and U.S. bonds all saw returns more than zero and less than 1% in the first quarter of 2002 (see Graph 4). As usual, emerging markets provided much excitement. Pakistan, for obvious reasons, gained about 57% (in US$ terms) in the first three months (okay, not so obvious to us; we don't have a clue about the Pakistani market). A great ride was had in Argentina, which was up 61% (in local terms) or down 47% (in US$ terms), proving that currencies do impact returns.

Graph 4



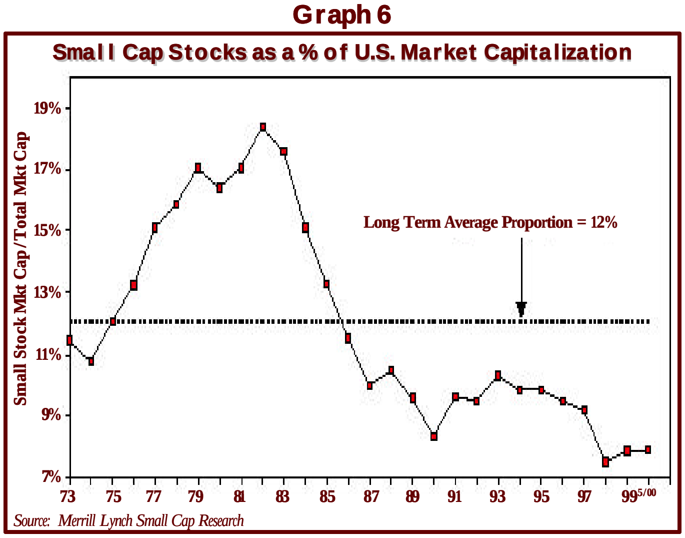
One of the interesting developments since the bubble burst two years ago is the resurgence of small cap stocks. The Great Bull Market was dominated by large cap stocks, and with higher risk and less return, small cap allocations were often allowed to drift lower. The Great Bull Market caused many lessons of history to be ignored, or at least dismissed. Two of the facts it hid were the extraordinary level of relative performance achieved by the large cap stocks in the late 1990s (see Graph 5).

Graph 5



We sometimes think of the small cap market as a domestic version of an emerging market, i.e., highly illiquid, extremely volatile, lack of information. In fact, U.S. small cap stocks represent more than $1 trillion of market capitalization, larger than all but a handful of markets (France-$1.1 trillion, Germany-$1.2 trillion, U.K.-$2.6 trillion, Japan-$3.9 trillion). Mid-caps add another $1.7 trillion. So the small cap market in the US is a very sizeable market, although at around 7% of the total U.S. market that is well below its long-term historical weight (see Graph 6). We continue to recommend over-weight positions in small cap stocks in our portfolios.

Graph 6



Asked to explain the theory of relativity, Einstein thought for a moment, then said, "Put your hand on a hot stove for a minute and it seems like an hour. Sit with a pretty girl for an hour and it seems like a minute. THAT's relativity."

We spend a lot of time on relative performance: did Manager X beat its index? Did Manager Y outperform its peer universe? Did the portfolio exceed its weighted-average benchmark? These were appropriate questions when stocks and bonds were returning 15% and 20% per year because the *real* purpose of the assets, to support spending or fund liabilities, was achieved easily. So we spent our time trying to choose among jars in the candy store. But spending all of our time in a candy store is ultimately unsatisfactory, for two principal reasons.

Most important is that obsession with relative performance obscures the fact that our portfolio may not achieve its absolute requirements. A pension fund that does not achieve its actuarial assumed return (on average, more than 9% now) will have to increase contributions and/or cut benefits. A non-profit foundation generally must earn 5% plus inflation plus expenses, or face a decline in its asset base. One doesn't need to assume a prolonged bear market to create a problem. Investment-grade bonds currently yield less than 6%, so we won't meet our return hurdles here. And equities, as we detailed in last quarter's letter, may not yield much more, with a greater amount of uncertainty surrounding those returns.

The second concern is the validity of the benchmarks. The Russell indices are changed annually, at the end of June, in material ways. More than a third of an index may be turned over, and a manager on one side of a growth/value style or with a large cap/small cap bias on 30 June could be on the other side of the index on 1 July. Anticipating the Russell reconstitution is now a practiced art at many shops.

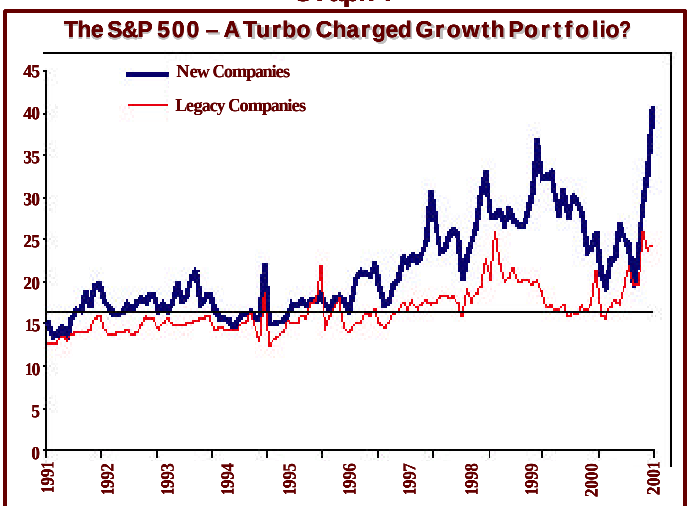
The composition of the indices is also questioned. Consider the following groups of stocks; which is growth and which is value, per S&P/BARRA?

Group A	Group B
AOL	US Airways
Sapient	Tupperware
Broadcom	Deluxe
Clear Channel	Dow Jones
Viacom	Campbell Soup
Applied Micro	Maytag

Well, Group A is in the S&P/BARRA *value* index and Group B in the *growth* index. We wonder how sensible this really is. But it gets curiouser. Steve Galbraith of Morgan Stanley recently pointed out the example of AOL. When its stock price was above $50, AOL was in the value index because it had a low price-to-book value. Now that its stock is below $20, it's about to move into the growth index. Why? Because AOL announced a write-off of $54 billion of good will, thus slashing its book value, and it trades at a high price-to-book, hence it is a growth stock. This seems stranger than quantum physics. But, as Einstein said, "Only two things are infinite, the universe and human stupidity, and I'm not sure about the former."

One last point about indices. Over the past six years, almost half of the constituents of the S&P 500 Index have been replaced. The characteristics of the index have changed as the new constituents generally have sported much higher P/E multiples than the stocks they replaced (see Graph 7), making the S&P 500 Index much more growth oriented than a broad index might suggest.

Graph 7



Source: S&P, Morgan Stanley Research – Note: Since 1997 – On avg 42 stocks per year have been added/deleted to/from the S&P 500.

We're not against keeping score; that's an important and appropriate function. But if keeping score leads to sub-optimal investment behavior, then it becomes problematic. If the game is a relative one (as it has been), managers will adhere to their benchmarks, no matter how silly they are, because they know they won't be replaced if they modestly outperform, even if the absolute return is unsatisfactory. More troublesome is that managers might feel compelled to own a stock, regardless of its investment potential, simply because it is a part of an index.

Investors have begun to notice these problems of relative returns and index construction. Over the past three years the number of and the assets in hedge funds have risen nearly 50%. The surge in the popularity of hedge funds is no doubt partly a function of the desire to escape the constraints applied by traditional (as it's evolved) money management.

Hedge funds are not a panacea, and implementing a prudent hedge fund strategy may create more problems than it solves. Hedge funds may or may not be appropriate for institutional investors, but if they are then they are just one part of the larger issue of achieving reasonable returns with acceptable risk. Adding overlooked asset classes to our portfolios, such as convertible and real estate securities, may also be a part of that strategy, as we've discussed previously.

Perhaps we should also rethink our analysis of traditional managers. A few weeks ago, in one of our frequent, informal ruminations at Angeles, one of us commented that a few years ago, when growth style was, well, stylish, we had no trouble finding "good" growth managers, but "good" value managers were hard to find. Today, most value managers screen well, and most growth managers do not. I think this is another piece of evidence that we should approach manager selection from another angle. If most style-based managers perform well when their style is in fashion and lag when it is not, perhaps style is a more important determinant of performance than manager skill. If so, perhaps we should obtain our style exposure through low cost passive strategies, and seek active managers without imposing artificial style or capitalization or geographic constraints. In other words, hire managers to pick the best investments, not the best investments within some contrived boundaries.

The problem is that this is easier said than done. We met the other week with a senior investment professional of one of the world's most prominent money management firms, a 30-year veteran who has achieved some considerable success. He commented that one lesson he has learned in his career is just how hard it is to be successful. Most managers struggle within their own areas of expertise, much less across the boundaries of style and capitalization. And this is not because the industry has collectively become less skilled, but just the opposite. As Harvard biologist Stephen Jay Gould noted in a different context, the demise of the .400 hitter in baseball is not due to less hitting skill, but rather much improved skills among players so that the variations in returns have declined as the level of skills improved. The same is true in money management. Exceptional performance over time is rare.

As Alice said to the March Hare, "I think you might do something better with the time than wasting it in asking riddles that have no answers." Well, we certainly don't have all the answers, but perhaps we can begin to look for some of the answers. We recognize that constraints are a necessary part of an analytical framework, both for us and for the managers we evaluate. But more and more it seems that the boundaries the industry defines are artificial to the point of dysfunctional.

Rather than blowing the whistle every time a manager strays from a contrived definition, we think we will be better served by identifying the quality firms that may be found in neatly identifiable boxes or may be hiding in the less easily labeled dark matter found throughout the universe. Our efforts should be on achieving the necessary returns in our investment portfolios by accepting a reasonable level of risk. Of course, achieving those necessary returns will be much more difficult in the coming years. But we think a start is in re-examining our definitions of risk, and looking not just beyond, but also through, those artificial boxes and labels that are commonplace.

Einstein noted that "Great spirits have always found violent opposition from mediocre minds. The latter cannot understand it when a man does not thoughtlessly submit to hereditary prejudices but honestly and courageously uses his own intelligence." A path we'll try to follow.

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