



# CUBIC ASSET MANAGEMENT, LLC

## 2008 1st Quarter Stock Market Commentary

### NOTHING RECEDES LIKE EXCESS

"When people start dropping shoes, you really don't know whether they're a one-legged guy or a centipede."

Warren Buffett, in a December CNBC interview, in response to being asked whether the recent bout of trouble for banking stocks might be the last shoe to drop.

Sir Francis Galton (1822-1911), a cousin of Charles Darwin, was one of the most accomplished Renaissance men of the Victorian era that almost no one has heard of. Galton was an accomplished meteorologist, and pioneered the use of data about barometric pressure to construct the first weather maps. He journeyed to Africa from 1850-1852, mapping previously unexplored portions of southwest Africa, which led to his election to the Royal Geographical Society. He founded the field of Differential Psychology, also known as the "London School" of experimental psychology. Galton studied the use of selective breeding to improve the human condition, coining the word "eugenics". He was the first to use the phrase "nature versus nurture". Fans of the CSI franchise will be interested to know that Galton was the inventor of the technique of fingerprint identification.

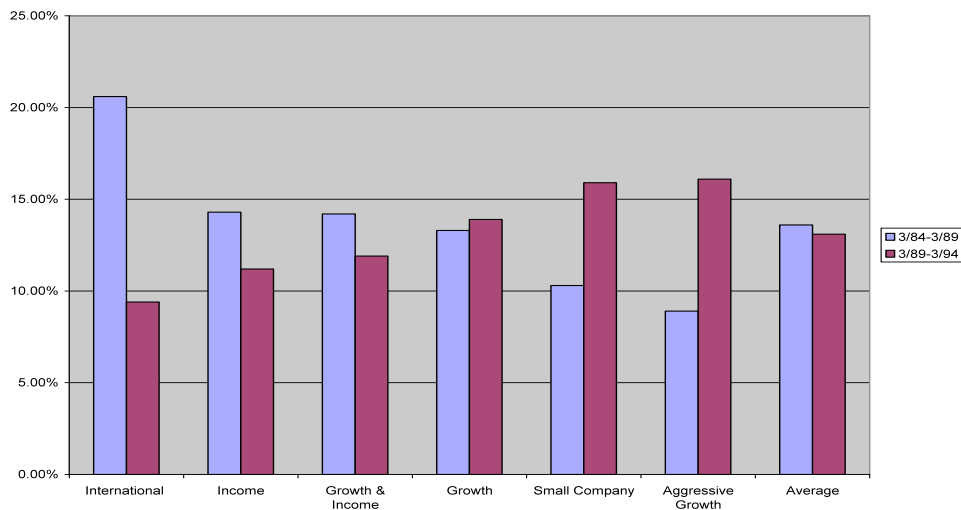
But Galton's most important achievement arose from his studies of genetics. In an 1886 article in the *Journal of the Anthropological Institute*, Galton published a paper called "Rate of Regression in Hereditary Stature". The paper compared the heights of 930 adult children with the heights of their 250 parents. He first multiplied the height of each woman by 1.08 to account for sexual differences, and then allowed for the fact that both parents contributed genetic material to their offspring by using the mean of their adjusted heights. Galton observed that "It appeared from these experiments that the offspring did not tend to resemble their parents in size, but always to be more mediocre (the word then used for median) than they – to be smaller than their parents, if the parents were large; to be larger than the parents, if the parents were small." This was the first published example of what has now become known as regression to the mean. Roughly speaking, this principle says that given any random variable, the more that one measurement of that variable differs from its mean, or average, the greater the likelihood that another measurement of the same variable will be closer to the mean.

Politicians love regression to the mean. It allows them to argue the opposite side of any issue and support that position with data (as if they need statistics to be argumentative). Take, for example, data on the distribution of incomes. Imagine that the government collects statistics on income distribution, and divides the sample population into deciles. Thus, the first decile consists of the 10% of the population who have the highest incomes, and the tenth decile consists of the lowest earners. Ten years later, the

government re-examines the incomes of those same people. To the joy of the current administration, it seems that the incomes of those lowest decile individuals have, for the most part, moved closer to average. In other words, policies designed to reduce income inequality appear to be working. But the loyal opposition counters that those individuals who were in the first decile, who historically provide the capital for new business formation, are no longer as rich as they used to be. Their incomes, too, are a bit closer to the mean. The economic policies of the current administration must be broken, they charge, implying obvious need for change. In reality, both observations are simply the way the world works.

In the stock market, regression to the mean is the underlying rationale behind all value investing. Basically, value investors buy stocks that are cheaper than average by some measure, such as price-to-earnings ratio, price-to-book value, or price-to-cash flow, for example. They then let the inevitable regression to the mean produce a profit. Benjamin Graham, in his classic text, *Securities Analysis*, recognized this when he wrote “Extremely few companies have been able to show a high rate of uninterrupted growth for long periods of time. Remarkably few also of the large companies suffer ultimate extinction. For most, this history is one of vicissitudes, of ups and downs with changes in their relative standing.”

The long term return of the stock market is approximately 10%. Mean reversion implies that investors who extrapolate the 25% returns associated with a bull market do so at their peril. Long periods of high performance are more likely to be followed by years of sub par returns, so that the stock market will continue to average 10%. Slightly more than a decade ago, Morningstar published some data which dramatically illustrates regression to the mean. They computed the rates of return of a variety of

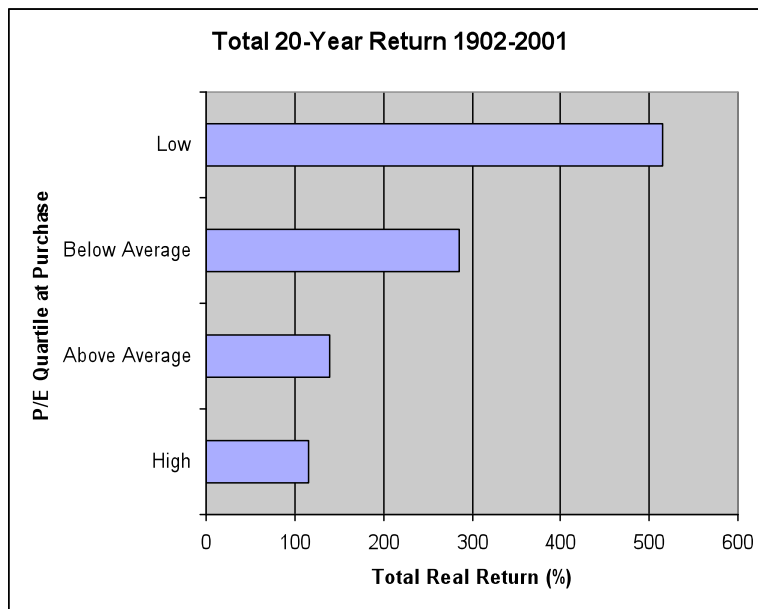


different mutual fund categories, such as international stocks, growth stocks, etc., for the five year period ending March, 1989 and then the five year period ending March, 1994. The data confirms what every value investor believes. It is more profitable and less risky to buy funds which have underperformed, rather than buy the winners, contrary to most investor’s behavior.

The same phenomenon applies to individual stocks, too, not just to funds. In 1985 at the annual meeting of the American Finance Association, Richard Thaler of the University of Chicago and Werner DeBondt of the University of Wisconsin presented a paper entitled “Does the Stock Market Overreact?” They wanted to see if periods of extreme outperformance are followed periods of extreme underperformance, and vice versa. They studied the three year returns of over a thousand stocks in every three-year period from January 1926 to December 1982. Thus, the period 1926,1927,1928 constituted one period; 1927,1928,1929, represented a second, and so on. Within each period, stocks which had dramatically

outperformed the market in that three year time frame were dubbed “winners”. Those which underperformed were called “losers”. The authors then studied the performance of two hypothetical portfolios over the subsequent three years: one, a portfolio consisting of all the winning stocks, the other a portfolio of the losers. The results were unequivocal. Winners, on average, trailed the market by an average of 5% over the next three years. Losers, by contrast, outperformed the broad market by an impressive 19.6%. Regression to the mean tends to turn yesterday’s losers into tomorrow’s winners. The authors wrote that “extreme returns of stocks listed on the New York Stock Exchange were subsequently followed by significant price movement in the opposite direction”.

Comedian/political adviser Ben Stein coauthored a book with Phil DeMuth entitled *Yes, You Can Time The Market*. The book is basically a screed for the use of regression to the mean as an all-purpose investment tool. The authors examined 100 years of stock price data. In each year, they divided all stocks into quartiles, based upon P/E ratios. Then they constructed four hypothetical portfolios, which they held for 20 years. The chart below displays their results. High P/E investing produced miserable long-term performance, while low P/E investing trounced every other group.



These musings were prompted by the current downturn in the banking sector, which in turn was precipitated by the subprime mortgage crisis. Financial service stocks have fallen sharply. Amongst large money center banks, Citigroup has plummeted more than 50% from its peak last May, Bank of America is “only” down 25% and Wachovia Bank has plunged 40%. Investment banks have suffered even more. Merrill Lynch has lost 43% during the same period, Bear Stearns has fallen 47% and UBS has collapsed by 48%. Such dramatic declines naturally raise the question of whether financial service stocks have now become “too cheap”. Should we be aggressively buying them?

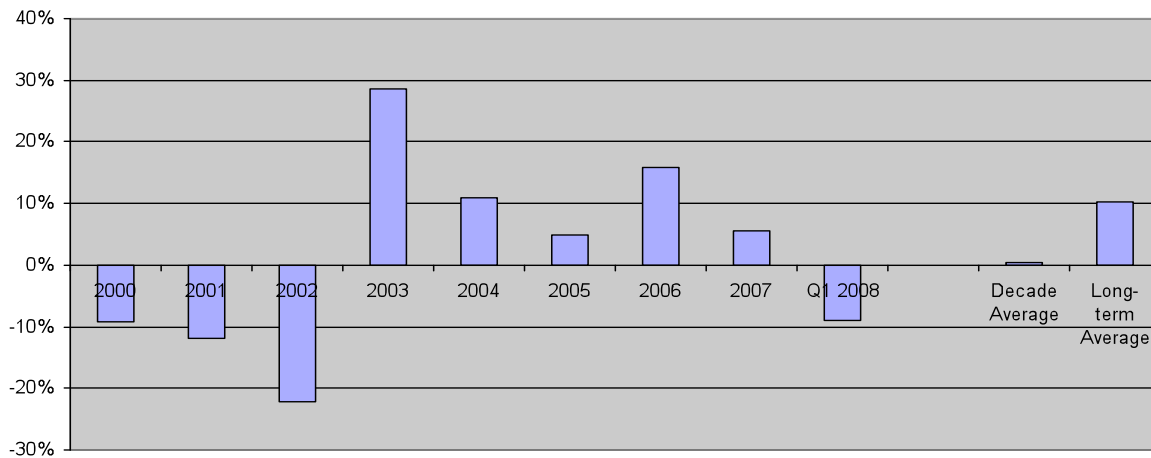
We took a broad cross section of banks and insurance companies, together with their price-to-book ratio and return-on-equity for the past fifteen years. We then used standard statistical techniques to perform a regression analysis. In non-technical terms, we tried to determine whether these companies were statistically cheaper than “usual”. The data was somewhat surprising.

Yes, financial service companies are cheaper than they typically are, but not by much. Not enough to prompt anyone to run out to mortgage his/her house (assuming there is still a bank willing to write a mortgage) to buy financial stocks. And this is provided we ignore the issue of whether book value is uniformly overstated, because there are asset write-downs still to come. The surprising revelation was how expensive these stocks had become in the few years just prior to the crisis. By packaging mortgages, credit card receivables, and buyout loans into packages which were securitized and sold to investors around the globe, banks and brokers had become much more profitable than they ever had before since they did not have to keep these loans on their own balance sheets. Corporate earnings, which for the 1980s and early 1990s averaged 6.5% of GDP, grew to 8% of GDP over the past decade. But according to government statisticians, non-financial companies over the entire period have produced earnings equal to 5.3% of GDP. It follows that the entire increase was due to a surge in financial company earnings. Regression to the mean, unfortunately, does not suggest that banks and brokers are now compelling “buys”, but it does confirm that someone looking closer at the data should have been prompted to sell those stocks a year or two ago when their profitability was dramatically above average.

If the data was readily available, why didn't investors act? The fact is that there is a natural tendency to assume that the future will be very much like the present, no matter how abnormal the present might be. That is why investors in the late 1920s and late 1990s were uniformly bullish, and those in the 1930s and 1970s were equally bearish. Investors project today's behavior into the indefinite future, rather than assume that the future will be more like the past 100 years.

The stock market is currently suffering its worst start in memory. And worse, this is occurring at the end of a decade which has already produced extremely disappointing returns. In the chart below we show the annual percentage total return in the S&P 500 since January 1, 2000. Thus far, the average annual return has been only 0.40%. Volatility and lackluster returns have prompted many to flee the stock market for

**S&P 500 Returns 1/1/2000-present**



the safe haven of U.S. Treasury securities. But an investment in ten (10) year treasuries is guaranteed to produce a return of only 3.51% per year over the next decade. After allowing for taxes and inflation, that's below even the disappointing returns of the past eight years. The long-term total return on the S&P 500 for nearly a century has been 10.28% per year. Given the inevitability of regression to the mean discussed above, do you really think that right after a long period of low returns is the right time to be a seller?