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Alan, Ben, My Fed Model, And Why Stocks Are Cheap

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As investors know, stock prices are influenced by a complex array of information. The price of any single stock in isolation is affected by its current and projected earnings, the degree of reliability of those projections, its balance sheet, its dividend or prospect of a dividend, the relative attractiveness of alternative investments and many more factors. Thus there will always be a wide disparity in the price/earnings ratios for the stocks of the various public companies. However, when we examine the stock market as a whole, there emerges a consistency that is not evident among individual companies.

On December 5th 1996, during a speech before the United States Senate, then-Federal Reserve Chairman Alan Greenspan roiled financial markets worldwide when he posed the question “But how do we know when irrational exuberance has unduly escalated asset values, which then become subject to unexpected and prolonged contractions as they have in Japan over the past decade?”

Shortly thereafter, I shared with Chairman Greenspan a copy of our research demonstrating that the earnings yield* of the S&P 500 was highly correlated to the interest rate on the one-year Treasury. This research showed that all bear markets in the prior 40 years had been accompanied by the one-

year interest rate exceeding the earnings yield of the S&P 500 by at least 20%. In the Federal Reserve's Beige Book the following summer, they incorporated the same analysis but substituted the ten-year Treasury interest rate for the one-year Treasury rate. Thereafter, Wall Street analysts began referring to this valuation method as "The Fed Model." In 2005, I had the opportunity to meet with Ben Bernanke and I asked why the Fed had elected to use the 10-year Treasury rate in their model. He responded that, since stocks are infinite maturity instruments, they should logically be priced off of long-term interest rates. However, our historical analysis suggests that that is not the case. The issue is confusing because interest rates at all maturities are highly correlated to one another. But, by comparing the earnings yield of the S&P 500 to various government interest rates, we have found that the highest correlation is to the one-year Treasury rate. The long-term coefficient of correlation to the one-year Treasury is .80 while the ten-year Treasury scores .75 and the 30-year Treasury is lower still at .66.

Since 1965, U.S. stocks have experienced eight bear markets. With the exception of the most recent bear market in 2008-09, which was triggered by a financial crisis rather than excessive valuation, the earnings yield of the S&P had declined to less than 80% of the yield on the one-year Treasury prior to each bear market period. If you had been using the 10-year interest rate as incorporated in "The Fed Model" (and not the one-year), you would not have foreseen any difficulty for the market leading into the horrific bear market of 1973-74. However, the one-year rate was warning of trouble. As those of us who lived through it will attest, that was as bad as any bear market in the last 50 years.

If the correlation were 1.00, the stock market would always be perfectly priced--a true Goldilocks environment--not too high, not too low, but just right. But, in the real world, investors periodically become too optimistic or too pessimistic and the market becomes mispriced. Today happens to be one of those times.

The stock market today is extraordinarily cheap when measured against either the one-year or the ten-year interest rate. With an earnings yield of the S&P 500 in excess of 5.5%, the one-year Treasury rate well below 1% and the ten-year rate just above 3%, the stock market has a huge margin of safety, even when one allows for an inevitable rise in interest rates once the Federal Reserve finally embarks on their "exit strategy." In fact, this is the greatest undervaluation in the last half century.

In my opinion, investors would be well advised to maintain an overweight position in equities to take advantage of these historically cheap prices. There will always be risks such as the European sovereign debt crisis spreading or other unforeseen crises erupting, but the task of investing necessarily entails risk. This is one of those rare times where investors are being well compensated for assuming those risks.

**The earnings yield is the reciprocal of the price/earnings ratio. It is calculated by dividing the trailing 12-month reported earnings of the S & P 500 Index by the price of the index. Therefore it expresses the earnings as a percent of the index price rather than the index price as a multiple of the earnings.*

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