



## GAME CHANGER:

### MARKET BEWARE SLOWER ECONOMIC GROWTH

*By Ed Easterling*

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The headline across the financial press should read: “Grantham and Brightman Call Gross an Optimist.” The irony is that last fall Bill Gross (PIMCO) reduced his long-term forecast for annual U.S. economic growth from the New Normal rate of 2% to 1.5%. That was depressing. Keep in mind that the annual long-term growth rate for the U.S. economy (real GDP) has averaged just over 3% for more than a century.

But then, amid a firestorm of interest and buzz, Jeremy Grantham (GMO) and Chris Brightman (Research Affiliates) separately made the case for a future of 1% annual GDP growth. Brightman’s article, dated November 2012 and titled “1%... The New Normal Growth Rate?,” methodically and diligently spells out a future of 1% economic growth, absent policy changes. Grantham’s article, also dated November 2012 and titled “On the Road to Zero Growth,” makes a compelling case with intricate detail for 0.9% annual economic growth through 2030 and 0.4% thereafter.

The storm has continued. Amid strong reactions to his November report, Grantham doubled-down in February and offered further explanation in support of his lower-growth outlook. Gross initially seeded a bit of hope that the era of New Normal may be waning—at least temporarily for 2013 with economic growth returning to 3%. But his latest comment hot off the press states that “...a 2% new normal economy is the best we can expect.” With the qualifier “is the best,” Gross may be easing back to his most recent position at 1.5%. That rally sure didn’t last very long.

Of course there are numerous other perspectives about economic growth. The latest tally includes about 1.5 opinions per economist (reflecting economists’ penchant for the phrase “on the other hand”). Some economists are more optimistic, others more pessimistic, and more than a handful are on both sides of the fence. But these three gentlemen are highly respected and well-followed pros, and their calls are not short-term guesses. Their opinions are well-developed analyses with policy-level implications.

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The purpose of this article is to look beyond the details of each argument. That is, the objective is to understand the long-term implications for the stock market. Whether your preferred economist advocates 2%, 1%, or 0% long-term growth, the outcome is similar in direction though varying in magnitude. The impact will lie somewhere between bad and worse.

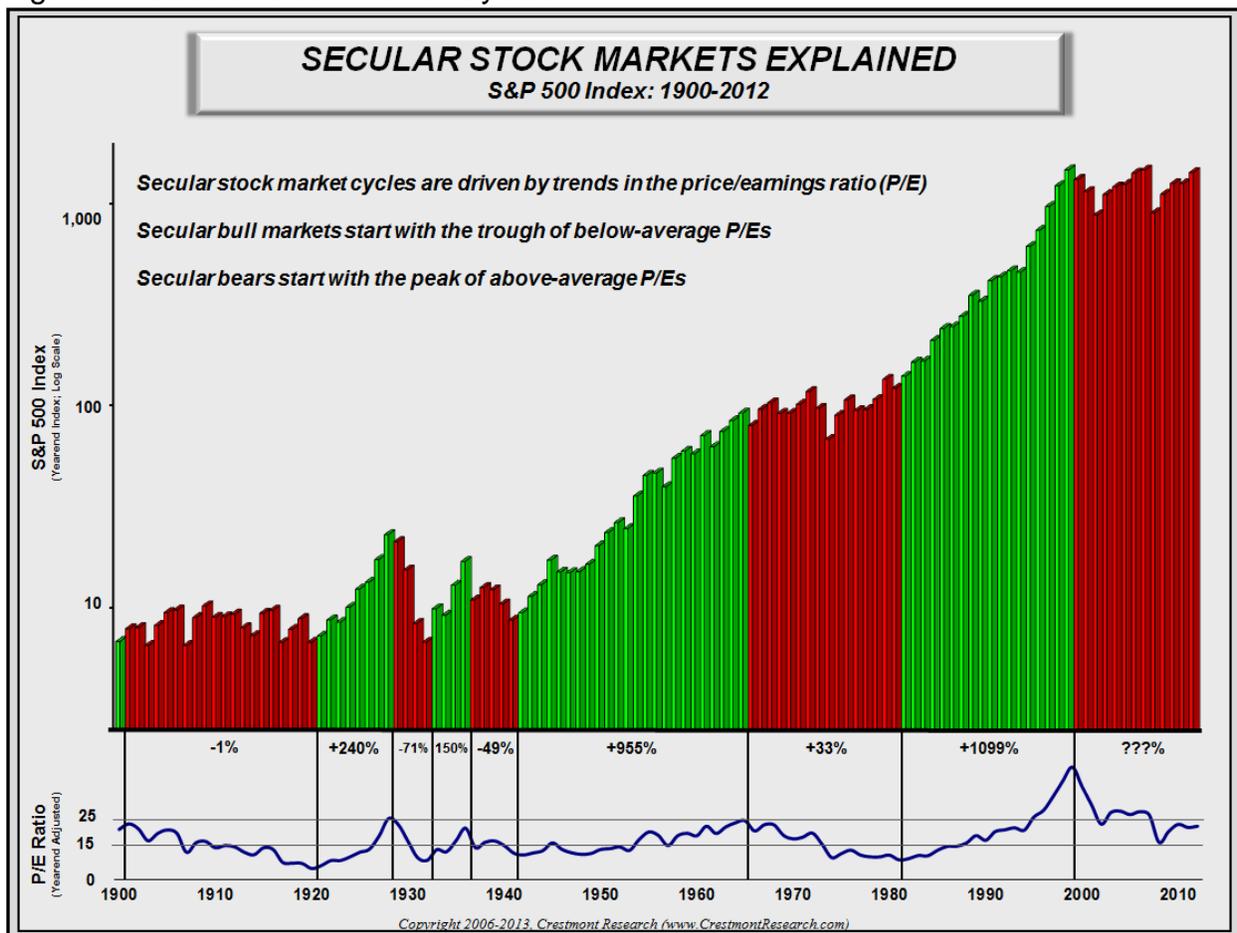
The following discussion includes an excerpt from the book *Probable Outcomes*. It explores the possibility that future real economic growth may have downshifted from its historical trend of 3%—and more significantly, it highlights the implications.

Historically, the prospect of slower economic growth had not often been considered by economists and analysts, but it is now mainstream thinking. The implications of slower growth on stock market returns would be dramatic for investors.

## SHIFTS & CYCLES

Most investors recognize that the stock market delivers extended periods of above-average and below-average returns. These periods are known as secular stock market cycles. The last full secular bear was 1966-1981. The most recent secular bull ran from 1982-1999. Our current secular bear market started in 2000, and it still has a long way to go. Figure 1 presents all secular stock market periods since 1900.

Figure 1. Secular Stock Market Cycles



These secular periods are not the result of a random walk through good times and bad times. They are not periods of war or peace. They are not even alternating periods of recession and expansion in the economy. Rather, secular stock market cycles are

driven by changes in the overall value of the market. In other words, secular bull markets are periods when the price/earnings ratio (P/E) of the market rises and compounds returns, while secular bear markets are periods when P/E declines and compromises returns. The blue line near the bottom of Figure 1 shows the history of P/E. Rising P/E drives secular bulls (green-bar periods), and declining P/E drives secular bears (red-bar periods).

Most importantly, the P/E cycle is not a coincidental wave or a random walk. P/E is driven by the trend and level of the inflation rate. Higher inflation drives interest rates upward. Investors demand higher returns to offset the adverse impact of inflation. Thus, higher inflation drives P/E lower, so stock market investors can achieve higher returns from lower prices and higher dividend yields.

Deflation also drives P/E lower. That occurs in response to an expected future of declining nominal earnings and dividends. And declining nominal cash flows during deflation drives current values lower.

Therefore, for more than a century, stock market investors have endured secular stock market cycles driven by the inflation-rate cycle. But there is a second variable that determines stock market valuation. Until recently, that variable could be ignored because it was accepted as a constant. Over the decades, this second variable has seemed to crawl along like the famous tortoise.

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The second variable impacting stock market value is the growth rate of earnings. Investors know that high-growth companies have higher P/Es than slower-growing, mature companies. The same principle applies to the market overall. It is especially relevant now that the constant of economic growth is uncertain.

For the past century, real economic growth has increased at slightly more than 3% annually. As a result of the strong relationship between earnings and the economy, earnings per share (EPS) for the major stock market indexes has increased at near 3% in real terms.

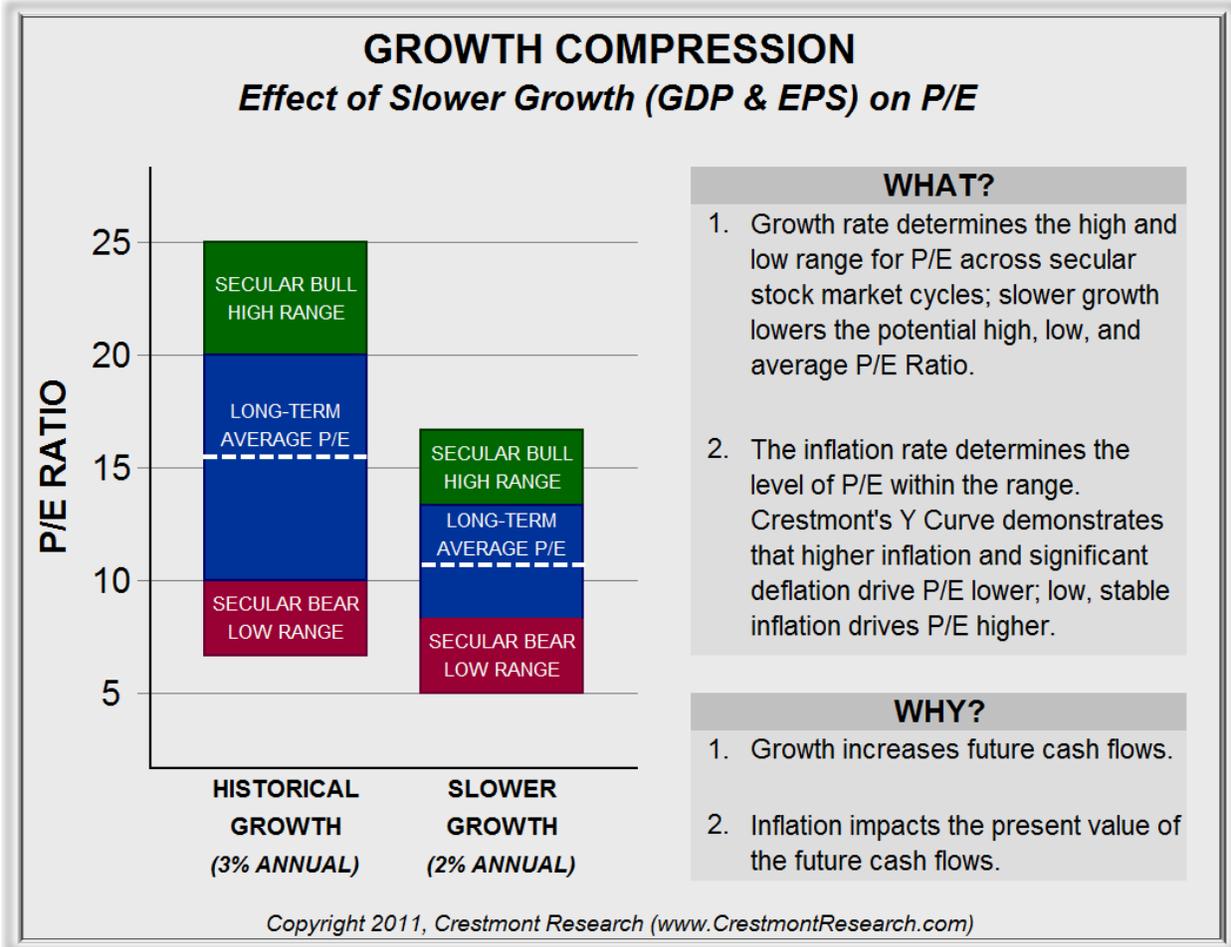
P/E generally peaked in the mid-20s (except during the Great Bubble of the late 1990s) and troughed below 10. The outside range for P/E, as well as its midpoint average near 15.5, occurred with such consistency because the growth rate of the economy and earnings was so consistent over the long term, at close to 3%.

In effect, the growth rate determines the P/E range and midpoint, and the inflation rate determines the location and trend within the range. A change in growth rate causes a shift in the range. These two dynamics are illustrated in Figure 2.

One effect of slower economic and earnings growth is a lower level of earnings in the future. For example, over ten years, \$1.00 compounds to \$1.34 at 3%, but only to \$1.22 at 2%. The difference is about 9.3% less EPS for the stock market under the slower

growth scenario. Many analysts would consider that level of variance a minor forecasting error for EPS over a decade. Whether the stock market is 9% higher or lower in a decade is generally small change in the context of overall returns. But the implication of slower growth is far more significant than simply the ending level of earnings. Slower growth is a game changer.

Figure 2. Impact of Growth Rate and Inflation Rate on P/E



There are three ways to assess its effect, all of which provide similar results. First, an extremely long-term model of earnings growth, dividend payouts, and present value can be constructed to assess the impact of changes in growth on P/E. Second, the academic formulas can be used to derive the effects on P/E based upon perpetual dividend growth. Third, the impact on P/E can be evaluated through the components of stock market return. Since all three approaches reflect comparable results, the more pragmatic third approach will be used to explore the implications.

Before examining the details, consider the significance of the issue. If the future growth rate of earnings decreases by 1% (i.e., near the reduction that would be expected if economic growth decreases by 1%), the historical average for P/E would decline from 15.5 to 11.5—representing a 26% decline in the stock market beyond the 9% shortfall

from lower earnings growth. More dramatic, the typical peak in P/E falls from the low to mid-20s to the mid-teens; the adverse impact of slower growth increases at higher levels of P/E.

As previously discussed, inflation causes P/E to decrease because investors demand more return to compensate for higher inflation. Unlike the inflation rate, the growth rate of earnings does not necessarily change the return level that investors expect. They will still expect returns that are commensurate with the stock market and the expected inflation rate, but they will look to replace the contribution of slower earnings growth with another source of return.

*The function of markets is to find the price that provides a fair return.*

To illustrate, assuming that a change in the growth rate does not change the inflation rate, the yields on government bonds can be expected to remain the same. Absent a change in credit quality from slower growth, the risk premium within corporate bond yields would not change. Likewise, the expected return from stock market investments can be expected to remain unchanged due to the growth rate.

When slower growth reduces the contribution of earnings growth to total return, another source of return is therefore needed to fill the shortfall. Stock market investors will not be willing to take equity risk without appropriate equity returns. If bond yields do not change, they will not compromise stock market returns. In this situation, stock market investors will step away until the price of the market declines to again provide appropriate returns. This is the function of markets—finding the price that provides a fair return.

This discussion relates to the effect from changes in the growth rate of earnings. To isolate that factor, several assumptions are needed. This will ensure that the relevant relationships remain the same. First, based upon the previous economics discussion, a downshift in economic growth drives slower earnings growth. Second, long-term profit margins remain similar under both growth scenarios, thus slower earnings growth is consistent with the downshift in economic growth. Third, the inflation rate remains constant across both scenarios for growth. Fourth, the expected return for stocks and bonds as well as the related equity risk premium for stocks does not change across both scenarios for growth. In other words, the relevant relationships remain the same.

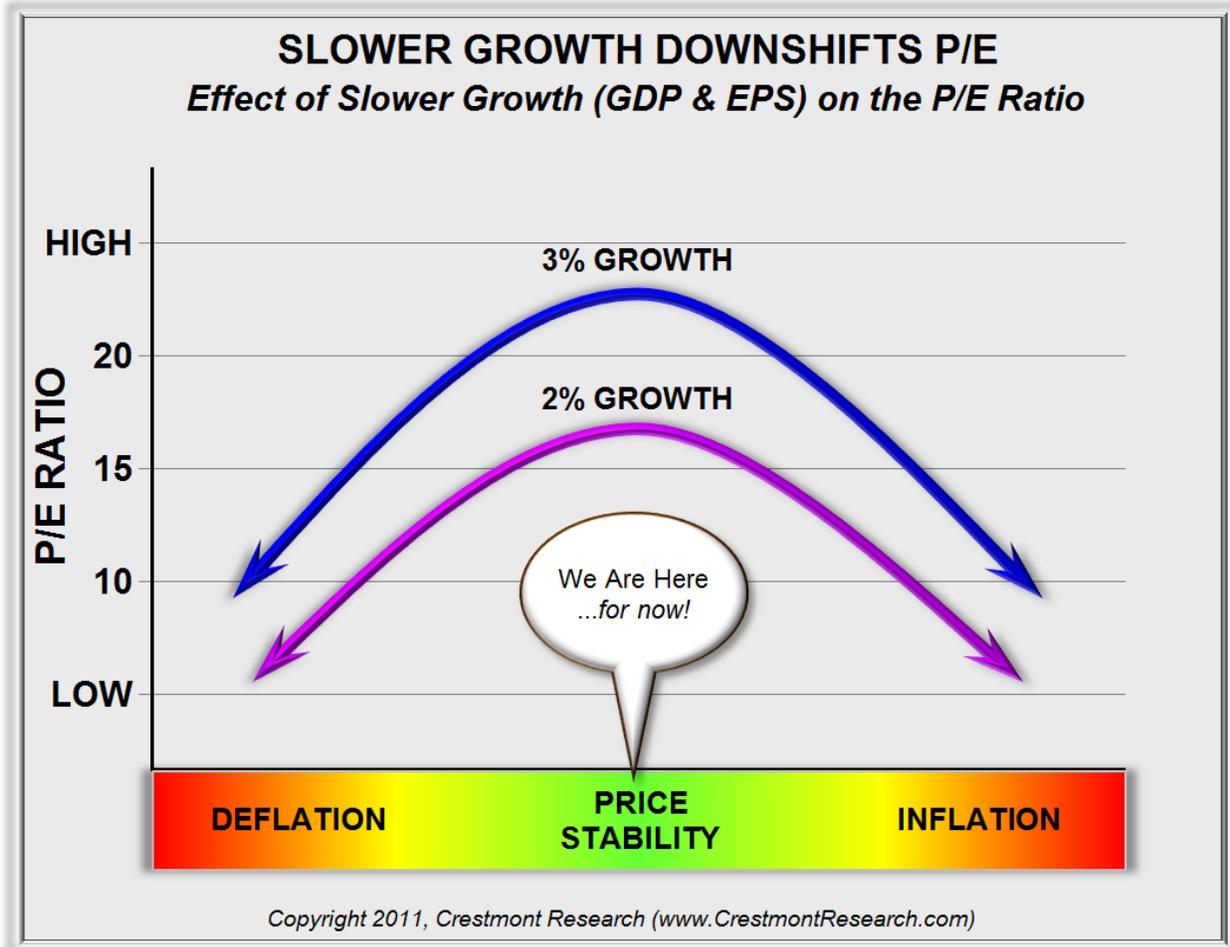
Of the three components of stock market returns, two are available as sources of return, and the third one represents the way in which returns occur. The first source of return, EPS growth, is defined in this example as either providing 3% or 2% toward to the total return. As a result, the second source of return, dividend yield, will need to increase to compensate for lower earnings growth in the second scenario. Herein is the role of the third source of stock market returns: changes in P/E.

The dividend yield rises as P/E declines and vice versa. For the stock market to be positioned to provide equity-level returns, investors will look for the lower price that enables the dividend yield to rise sufficiently to offset the loss of earnings growth. The required decline in P/E varies based upon the starting level of P/E.

If P/E starts relatively high, then a higher decline is required to provide the required dividend yield increase. For example, if EPS growth drops by 1%, then the change in P/E required to increase the dividend yield by 1% is 7 points from 22 to 15, 4 points from 15.5 to 11.5, and 2 points from 10 to 8.

This shift in P/E relates only to the change in earnings growth. P/E would then be further affected by changes in the inflation rate. Figure 3 provides another graphic illustration of the dynamics of shift and cycles. The shift is related to changes in growth rate and the cycle is driven by inflation rate trends and levels.

Figure 3. Impact of Growth Rate and Inflation Rate on P/E



As previously mentioned, two other methodologies provide similar results. A change in the forecast for future earnings due to slower growth results in lower present values. Likewise, the reduction in the growth rate variable in traditional academic models also produces lower current values.

Well, what about Bill Gross' future of 1.5% growth, Chris Brightman's outlook for 1% growth, or Jeremy Grantham's ultimate rate of 0.4% growth? The future average P/E would decline from 15.5 to 11.5 if growth downshifts to 2% from just over 3%

historically. If that is not concerning enough, note that a 1% growth rate resets the long-term average P/E to near 9.

At this point, there is a significant disconnect between the market's expectation of future growth and the vision of these sages. P/E, normalized for the business cycle, is near 20. That is consistent with current low inflation rate and historically average growth rates. Should it become apparent that either factor might change, beware the adverse impact of another P/E cycle, a new era with P/E shifting downward, or the compounded effects of both concurrently.

There will likely be, and needs to be, much debate about the accuracy of the estimates presented above, and about nuances that could add decimal points to the factors, or adjust the effects based upon further scenario assumptions. However, whether using long-term models, academic formulas, or the component-based method, all three approaches provide similar results. It is therefore important to recognize that slower growth will have a significant impact on P/E at all levels of the inflation rate. As the discussion evolves into implications and probable outcomes over this decade, slower economic and earnings growth will have a direct effect on the P/E range.

In closing, P/E is a measurement tool for market valuation. The level of P/E, driven by the principles of present value, reflects the price at which the stock market can deliver sufficient returns to compensate for inflation and risk. P/E is driven lower when conditions of inflation change the outlook for required returns. In addition, P/E declines when deflation changes the outlook for the level of future earnings. Of particular note, slower long-term economic and earnings growth reduces future cash flows and drive P/E lower. Conditions of solid long-term earnings growth and low inflation therefore provide the best conditions for a high P/E. In an environment where economic growth and the inflation rate are major uncertainties, an accurate and valid measure of P/E is more relevant and needed than ever before.

## **RAINBOWS**

Investors are confronting the reality of the current secular bear market. It is both the consequence of the previous secular bull market and the precursor to the next secular bull. The duration of the current secular bear period is uncertain. Should inflation or deflation overcome the economic environment in the near term, this secular bear could end sooner. That reality, however, would cause significant losses to stock market portfolios. If inflation or deflation slowly creeps into the economy, over the next decade for example, then this secular bear will have been one of the longer ones. However, if this decade repeats the relatively low inflation of the past decade, then the secular bear should remain in hibernation.

Beyond the inflation rate, economic growth also will have an impact on the future of this secular bear. Following last decade's below-average economic growth, this decade could generate above-average growth to offset the recent shortfall. The result would be a solid boost to earnings in this decade. Economic growth, however, also could have downshifted during the last decade to a lower level for the foreseeable future. The result would be a significantly lower range of P/Es, but not necessarily a progression through

the secular bear market. The economic growth rate can shift P/E upward or downward, but only inflation or deflation can end a secular bear market.

Whether this secular bear cycle ends in five years, ten years, or beyond, the result will be the start of the next secular bull market, which will bring an extended period of above-average returns. Spring finally will have sprung. This longer-term view of secular stock market cycles is the reason to look out across this secular bear to the next secular bull. The operative word is “across” this secular bear and not “past” it.

“Across” recognizes the reality of the risks and opportunities presented by secular bear markets. “Past” is the ostrich-like approach of ignoring reality with blind hope for an unrealistic outcome. “Across” is enabling, while “past” is disabling.

For investors who are accumulating for the future, secular bear markets are times to build savings for later investment. This is done not only through contributions but also through prudent investing with an absolute return approach to investment returns. The absolute return approach uses the dual strategy of risk management and investment selection.

Investment portfolios should be diversified across a range of investments that are diligently selected and actively managed, especially ones that control risk and enhance return. In particular, investors should not avoid the stock market or bond market. Instead, their objective should be to seek in both markets investments that incorporate elements of skill to enhance returns. Secular bear markets are not periods during which to avoid investing; they are periods that demand an adjustment to investment strategy.

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For investors who are more dependent on their current assets, including pension funds and retirees, investment strategy should be paired with early recognition. The principles of absolute return investing are important for preserving capital and generating much-needed returns. But potentially more important than managing the investment portfolio, pension funds and retirees would be well served in this environment to manage their assumptions and expectations. Earlier recognition of secular bear market conditions enables potentially painful adjustments to be smaller. Delaying action until crisis has onset generally brings greater adverse consequences. It is not prudent to hope for the next secular bull market to arrive sooner as a way to address shortfalls. The longer expectations take to adjust, the greater the gap to fill with an increasingly short time to fill it.

*Ed Easterling is the author of recently-released Probable Outcomes: Secular Stock Market Insights and award-winning Unexpected Returns: Understanding Secular Stock Market Cycles. Further, he is President of an investment management and research firm, and a Senior Fellow with the Alternative Investment Center at SMU's Cox School of Business where he previously served on the adjunct faculty and taught the course on alternative investments and hedge funds for MBA students. Mr. Easterling publishes provocative research and graphical analyses on the financial markets at [www.CrestmontResearch.com](http://www.CrestmontResearch.com).*