CRESTMONT RESEARCH

THE P/E REPORT:
QUARTERLY REVIEW OF THE PRICE/EARNINGS RATIO

By Ed Easterling
October 2, 2012 Update

	AS OF: SEP 30, 2012	REPORTED	ADJUSTED[1]	CRESTMONT[2]
"P"	Closing Price (S&P 500 Index)[3]	1441	1441	1441
"E"	Current Estimate (S&P 500 EPS)[4]	$89	$67	$69
P/E	Price/Earnings Ratio[5]	16.3	21.5	20.8

Notes:
(1) adjusted using the methodology popularized by Robert Shiller (Yale; Irrational Exuberance*), as modified for quarterly data*
(2) based upon historical relationship of EPS and GDP as described in chapters 5 & 7 of Probable Outcomes *and chapter 7 of* Unexpected Returns; *useful for predicting future business cycle-adjusted EPS*
(3) S&P 500 Index is the value at the date listed in the table
(4) 'Reported' is based upon actual net income for the past year (trailing four quarters); 'Adjusted' is an inflation-adjusted multi-year average; 'Crestmont' see note 2
(5) P divided by E

CURRENT STATUS (Third Quarter 2012)
The stock market rallied over the past quarter, increasing P/E further into the range of "fairly-valued." P/E has returned to the same level as the end of the first quarter, which is the highest P/E since mid-2008. By historical standards, the higher levels of P/E in 2007 (~25x) were near the upper limit of "fairly-valued." One implication could be that the current level of P/E has room to grow. Yet for investors that now foresee a greater risk of slower economic growth and/or a higher inflation rate or deflation in the future, the upper bound for P/E fair-value would be much lower than historically warranted. Further, note that the reported P/E increased this quarter not only due to the market rally, but also as a result of a decline in earnings. The reported P/E remains distorted below the normalized P/E due to currently high and unsustainable profit margins. The trend in earnings should be watched closely and investors should remain cognizant of the risks confronting an increasingly vulnerable market.

NOTE: Crestmont Research does not analyze the stock market or interest rates with a perspective about near-term direction or trends; Crestmont Research focuses on a longer-term, bigger picture view of market history and its fundamental drivers. Occasionally, the analysis indicates that a position has extended beyond the typical range of variation. In those times, the view can have relatively shorter-term implications. Also in those times, however, markets can take a path that is longer and farther than most investors expect before ultimately being restored toward the midrange position of balance of condition.

Descriptions of the Crestmont and Adjusted methodologies for P/E and its components are provided later in this report. In summary, the Adjusted methodology, popularized by Robert Shiller (Yale; Irrational Exuberance), uses the trailing ten-year average earnings adjusted for inflation; the Crestmont methodology uses earnings based upon its long-term trend with the economy. The recently released book, Probable Outcomes: Secular Stock Market Insights*, explores in detail many of the concepts included in this report.*

The summary listing of the "Current Status" from prior reports has been relocated to Appendix A of this report. The status summaries from the first page of all prior reports are provided for historical perspective. The first P/E Report was published on September 30, 2008.

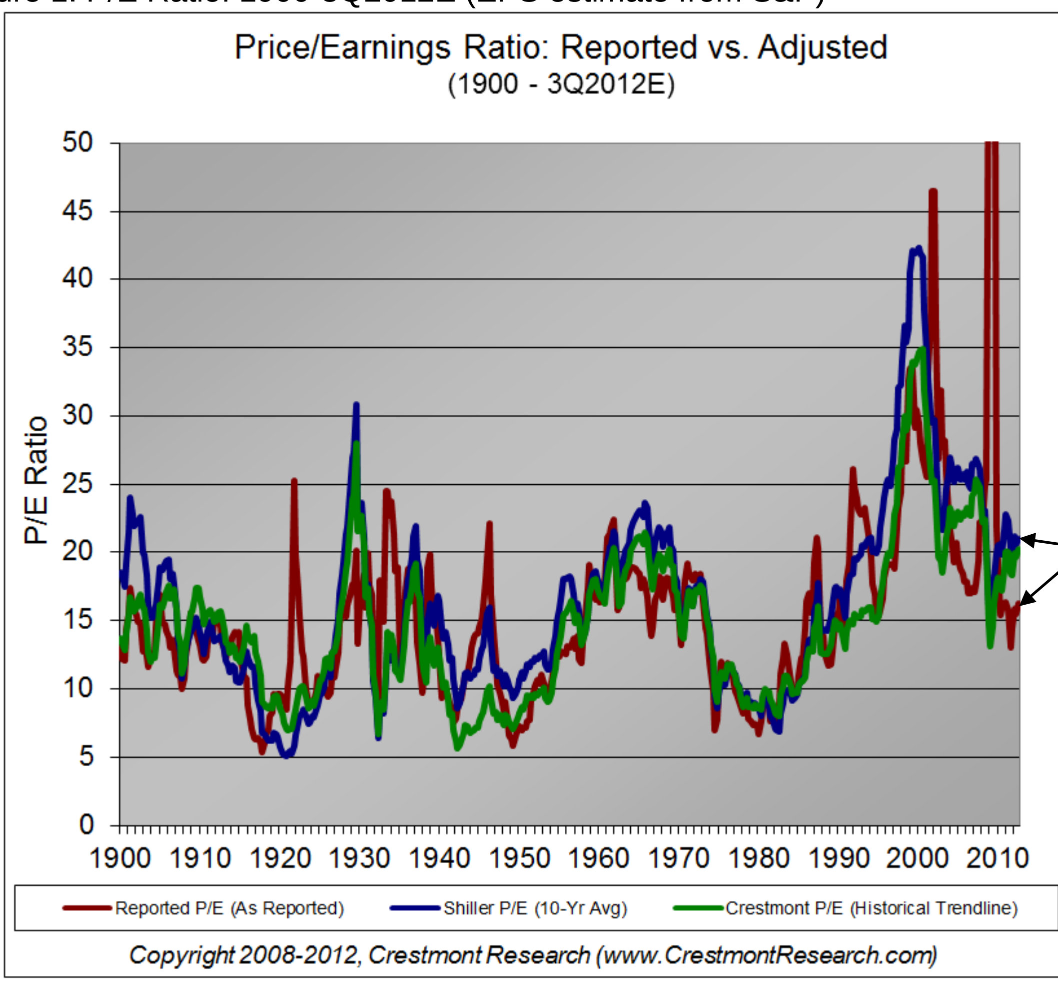
THE BIG PICTURE

The P/E ratio can be a good measure of the level of stock market valuation when properly calculated and used. In effect, P/E represents the number of years worth of earnings that investors are willing to pay for stocks. Although we will discuss later the business cycle and its periodic distortion of "reported" P/Es, most references to P/Es in this report will relate to the normalized P/E that has been adjusted for those periodic distortions.

Stocks are financial assets which provide a return through dividends and price appreciation. Both dividends and price appreciation are generally driven by increases in earnings. Despite the hope of some pundits, earnings tend to increase at a similar rate to economic growth over time.

Historically (and based upon well-accepted financial and economic principles), the valuation level of the stock market has cycled from levels below 10 times earnings to levels above 20 times earnings. Except for bubble periods, the P/E tends to peak near 25 (the fundamental limitations to P/E are discussed in chapter 8 of *Unexpected Returns*). Figure 1 presents the historical values for all three versions of the P/E discussed in this report.

Figure 1. P/E Ratio: 1900-3Q2012E (EPS estimate from S&P)



Note the significant business cycle divergence in P/E.

P/E can send a false signal of undervaluation, even when it is overvalued or fairly-valued.

EPS now exceeds the baseline trend; reported P/E is distorted low.

What drives the P/E cycle? The answer is the inflation rate—the loss of purchasing power of money and capital. During periods of higher inflation, investors want a higher rate of return to compensate for inflation. To get a higher rate of return from stocks, investors pay a lower price for the future earnings (i.e. lower P/Es). Therefore, higher inflation leads to lower P/Es and declining inflation leads to higher P/Es.

The peak for P/E generally occurs at very low and stable rates of inflation. When inflation falls into deflation, earnings (the denominator for P/E) begins to decline on a reported basis (deflation is the nominal decline in prices). At that point, with future earnings expected to decline from deflation, the value of stocks declines in response to reduced future earnings—thus, P/Es also decline under deflation.

Secular market cycles are not driven by time, but rather they are dependent upon distance.

Therefore, for this discussion, assume that there are three basic scenarios for inflation: rising, low, and deflation. As discussed above, rising inflation or deflation causes the P/E ratio to decline over an extended period which in turn creates a secular bear market. From periods of higher inflation or deflation, the return of inflation to a lower level causes the P/E ratio to increase over an extended period thereby creating a secular bull market.

Secular bull markets can only occur when P/E ratios get low enough to then double or triple as inflation returns to a low level. As a result, secular market cycles are not driven by time, but rather they are dependent upon distance—as measured by the decline in P/E to a low enough level to then enable a significant increase.

Cyclical vs. Secular

The current P/E is 20.8—well above the historical market average and well into the range that would be expected in a low inflation environment (*assuming historically-average economic growth*). BUT, secular markets are driven by longer-term annual trends rather than momentary market disruptions.

The secular analysis for each year relates to the average index across the year; so for each year, the price (P) in P/E (price/earnings ratio) is the average index for all days of the year. The stock market has recovered most of its declines from late 2008 and early 2009; therefore, it's now fairly clear that the period in late 2008 and early 2009 was just a *cyclical* (short-term) bear market blip within a longer secular bear market. Of course, that makes the last four years a typical *cyclical* bull market inside a secular bear market (it has happened many times before).

If the stock market does not recover further or cannot sustain the recovery gains from the past four years due to significant inflation or deflation, the normalized P/E over the next few years will likely decline below the historical average and the foundation for a secular bull market would begin to be laid.

We're in a period with many daily (often hourly) points that represent pixels in the market's picture. The short-run trends (the cyclical cycles) of the market are hard to predict. Without extraordinary powers of clairvoyance, the best plan is a diversified, non-correlated portfolio with a few engines to counterbalance the weaker components of the portfolio.

BACKGROUND & DETAILS

As described further in "The Truth About P/Es" in the Stock Market section at www.CrestmontResearch.com, P/E ratios can be based upon (a) trailing earnings or forecast earnings, (b) net earnings or operating earnings, and (c) reported earnings or business cycle-adjusted earnings.

> (a) The historical average for the normalized P/E is 16.3 based upon reported ten-year trailing real earnings (i.e., the method popularized by Robert Shiller at Yale). The ultra-high P/Es of the late 1990s and early 2000s were high enough and lasted long enough to significantly distort what we now know to be the average P/E. If those years are excluded, the normalized P/E is almost one multiple point lower (i.e., approx.. 15.5). Further, if forecast earnings is used, the average normalized P/E would be reduced by approximately one multiple point to 14.5. Note that the average reported P/E from 1900 to 2011, unadjusted for the business cycle and adjusted for the late 1990s bubble, is 14.
>
> (b) Substituting operating earnings for net earnings would further reduce the normalized average P/E by almost three points to 11.5.
>
> (c) Although the effect of the business cycle is muted in longer-term averages, the currently-reported P/E varies significantly due to the business cycle (more later).

It is important to ensure relevant comparisons—that is, P/Es that are based upon trailing reported net earnings should only be compared to the historical average of 14. When ten years of real net earnings are used in P/E (i.e., Shiller P/E10), the relevant average is 15.5.

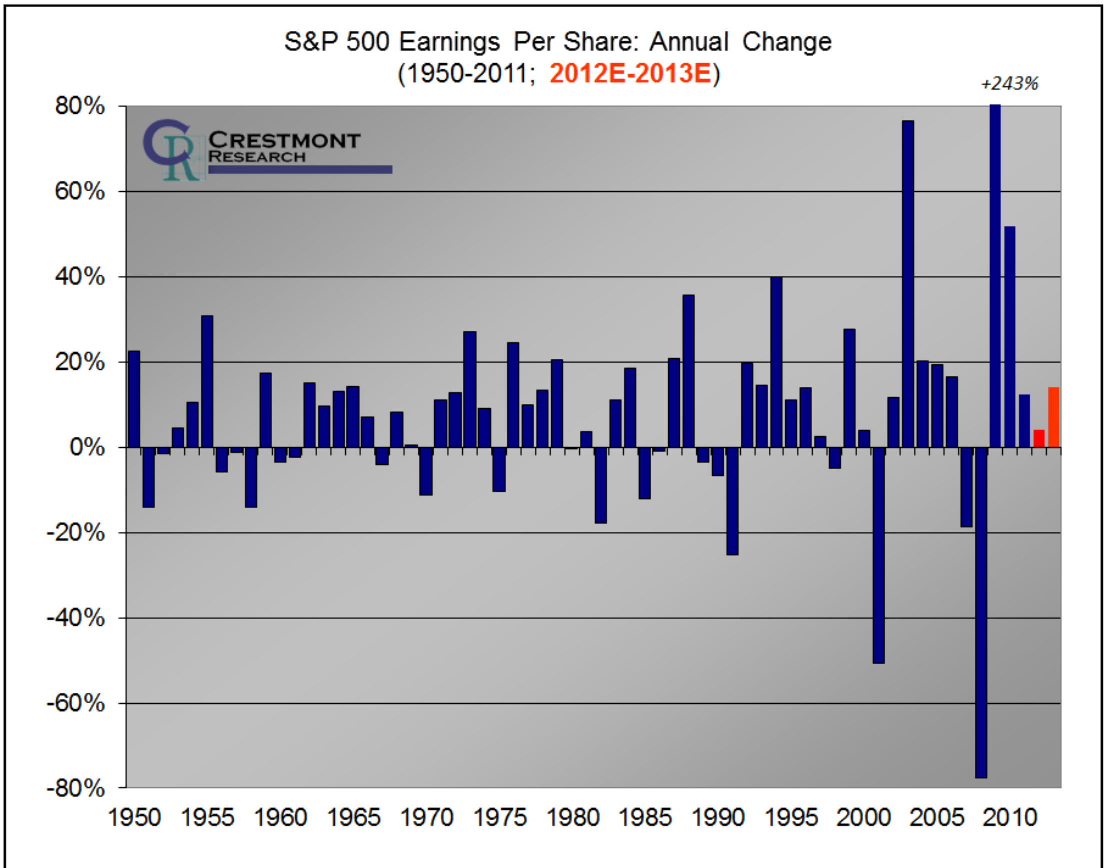
Too often, writers and analysts compare a P/E that is based upon forecast operating earnings to the average for trailing reported net earnings. Although long-term forward operating earnings data is not available, the appropriate P/E for that comparison would be closer to 11.

Yet the most significant distortion from quarter-to-quarter or year-to-year is due to the earnings cycle, or as some refer to it, the business cycle.

The Business Cycle

As described further in "Beyond The Horizon: Redux 2011", "Back To The Horizon", and "Beyond The Horizon" in the Stock Market section at www.CrestmontResearch.com (and in more detail in chapters 5 & 7 of *Probable Outcomes: Secular Stock Market Insights*), corporate earnings progresses through periods of expansion that generally last two to five years followed by contractions of one to two years. The result of these business cycles is that earnings revolves around a baseline relationship to the overall economy. Keep in mind that the business cycle is distinct from the economic cycle of expansions and recessions.

Figure 2. EPS: S&P 500 Companies (1950 to 2012E)



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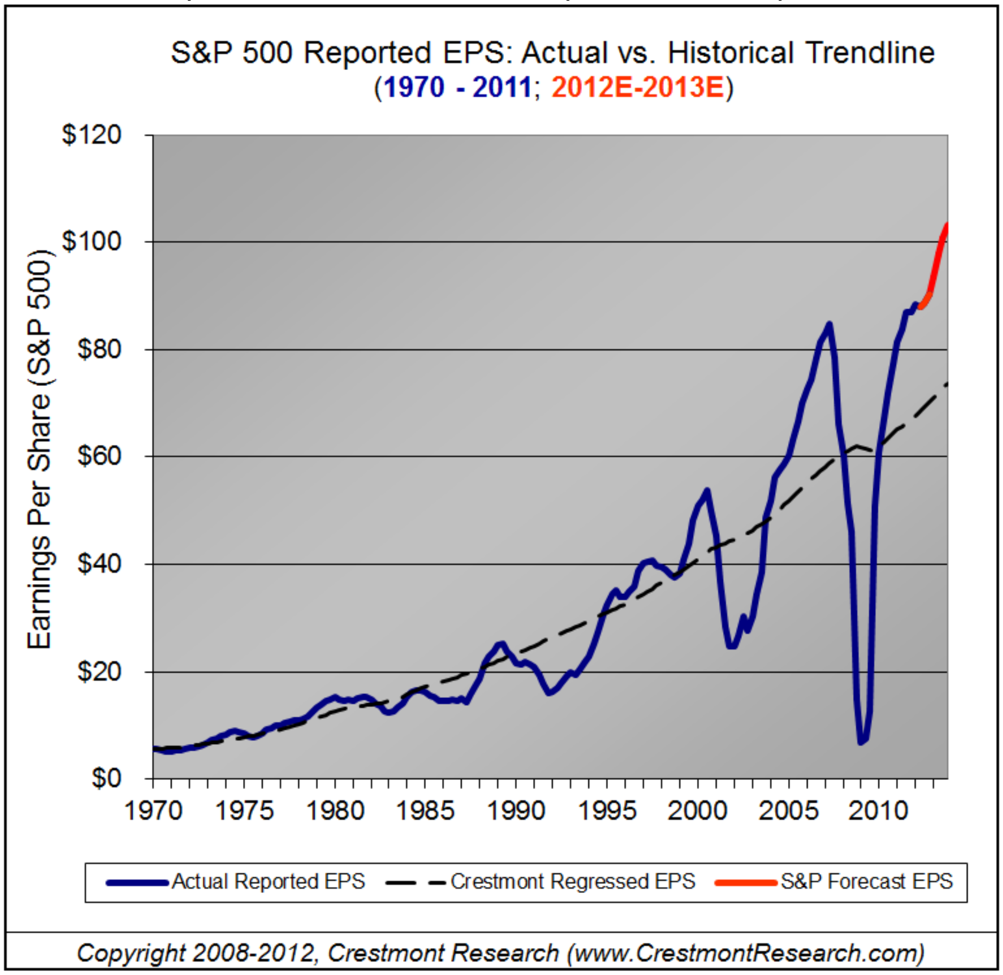
Note how the pattern of the earnings cycle—typically two to five years up followed by one or two of declines—appears to again be repeating…

The business cycle is not dead yet.

For example, looking back over the past six decades, Figure 2 presents the annual change in earnings historically reported by the S&P 500 companies and forecasted by Standard & Poors. This graph highlights the surge and decline cycle of earnings growth that is driven by the business cycle.

When the reported amount of earnings is viewed on a graph, the result is a generally upward sloping cycle of earnings growth. Since earnings ("E") grows in a relatively close relationship to economic growth (GDP) over time, there is a longer-term earnings baseline (as discussed in chapter 7 of *Unexpected Returns*) that reflects the business cycle-adjusted relationship of earnings to economic growth (GDP). Figure 3 presents actually reported E for the S&P 500 over the past four decades compared to the longer-term baseline.

Figure 3. EPS: Reported vs. Trend Baseline (1970 to 2013E)



The past few legs of the cycle have swung more dramatically than it has in the past; will that accentuation continue? Or, will we finally get back to being closer on track?

The EPS forecasts for 2012 and 2013 are above the trend-line; history again appears to be repeating the patterns of the business cycle.

Why does this matter? Because if you only look at the P/E ratio reported for any quarter or year, the ratio (with such a volatile "E" as the denominator) will be quite distorted during peaks and troughs when compared to the more stable long-term average. About every five years or so, the reported P/E will reflect the opposite signal rather than a more rational view of P/E valuations. For example, the reported value for P/E in early 2003 reflected a fairly high value of 32 just as the S&P 500 Index had plunged to 800 (E had cycled to a trough of $25 per share). A P/E of 32 generally screams "sell" to most investment professionals; yet, in early 2003, that was a false signal! A more rational view using one of the business cycle-adjusted methods reflected a more modest 18. In a relatively low inflation and low interest rate environment, the scream should have been "Buy"…

Several years later, in 2006 (after an unusually-strong run in earnings growth), E peaked at $82 per share as the S&P 500 Index was hesitating at 1500. Most market pundits were recommending a strong "buy" due to a calculated P/E of *only* 17. Yet, using the rational business cycle-adjusted methodologies, the true message was "STOP"—P/Es were saying sell, with P/E more than 25.

Well the pundits were actually (sort of) right—P/Es did expand… Yet it was due to (what should have been expected) the normal down-cycle in E rather than the pundit-promoted increase in the stock market. So when investors' stock market accounts were down almost 50%, they were handed explanations that the earnings decline was unexpected and the fault of the financial sector…

Many of the same pundits are bewildered by current market conditions and unsure about the future of E. Maybe this time will actually be different…or maybe not…

As for the market and P/E, it's understandable that conservative investors and market spectators have watched the past few years with awe. Even so, the current momentum remains upward. Nonetheless, it is important to remain aware that typical market volatility makes it also likely that the market will experience significant short-term swings.

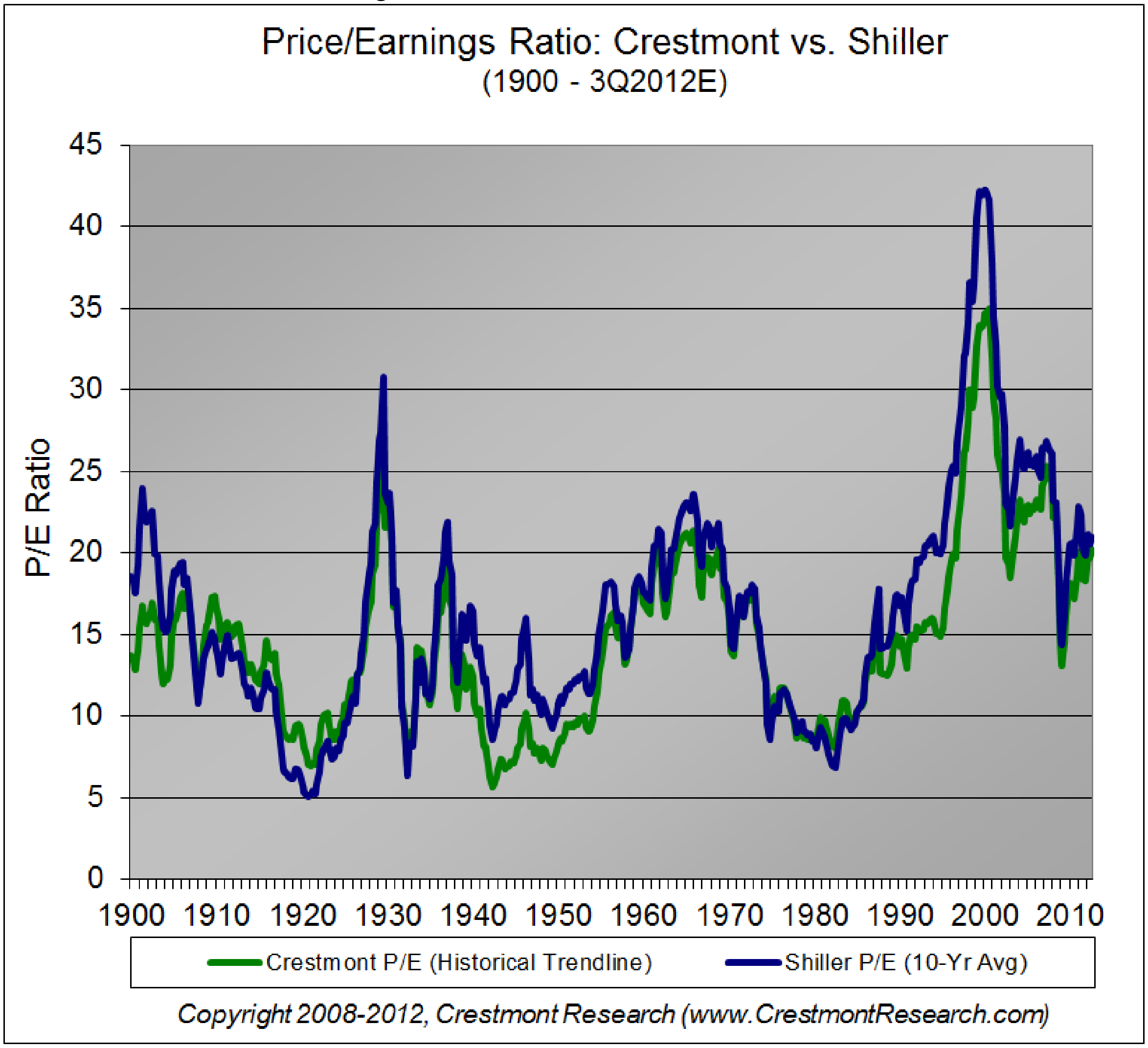
METHODS

To adjust for the variability of earnings across business cycles, a rational methodology is needed to reduce distortions and provide a normalized reading about the long-term level and trend in earnings. The most recognized methodology is the one popularized by Robert Shiller (Yale) in Irrational Exuberance and on his website. To smooth the ups and downs in earnings, his methodology creates an average of the reported earnings for the past ten years. To eliminate the effect of inflation, all earnings values are adjusted-forward and increased by the impact of inflation. The result is a ten-year average for E. Using the current stock market index value, we have a more rational view of the current P/E valuation of the stock market.

For historical values, whether it relates to a month or a year in the past, Shiller also adjusts the stock index value by averaging the closing price for each day during the period. The stock index adjustment reduces historical distortions caused by significant intra-period swings by the market.

Crestmont has developed a complementary methodology—one that is fundamentally-based—that produces similar results, yet also provides forward-looking insights. The approach is explained further in Chapter 7 of *Unexpected Returns*, yet in summary, it uses the close and fundamental (not coincidental) relationship between earnings per share ("E") and gross domestic product (GDP) to adjust for the business cycles. The baseline E for each period essentially is based upon mid-point values for E across the business cycle—peak and trough periods of actual earnings reports are adjusted back to the underlying trend line to reduce the intra-cycle distortions.

Figure 4. P/E Ratio Methodologies: Crestmont vs. Shiller



The historical relationship between Crestmont and Shiller is similar, as reflected in Figure 4, yet the Crestmont approach provides an estimate of the expected level of E based upon future economic growth (which has been fairly consistent over time). Also, by comparing reported E to baseline E, analysts and investors have a better understanding of the current position in the business cycle and magnitude of divergence above or below the long-term trend.

DISTANCE, NOT TIME

Secular bull markets can only occur when P/E ratios get low enough (due to high inflation or significant deflation) to then double or triple as inflation returns to a low level. As a result, secular market cycles are not driven by time, but rather they are dependent upon distance—as measured by the decline in P/E to a low enough level to then enable it to have a significant increase.

The table that follows in Figure 5 provides a representation of the 'distance' that would be required to reposition for a secular bull market. The scenario presents the typical historical starting point for secular bulls (i.e. P/Es below 10).

Note that this analysis does not include the dynamic of 'time'. As we continue forward in time, the normalized level of earnings ("E") will increase and naturally close the gap without the declines presented below.

This is not a prediction—maybe we can avoid a move to lower P/Es and keep this secular bear in hibernation. The result, after recovering from the recent cyclical bear market, would be approximately 6% total returns from the stock market including inflation; yet, it would avoid the devastatingly-low returns marked by full secular bear markets (see "Waiting For Average" at www.CrestmontResearch.com for a tally of the future expected return).

Nonetheless, since one of the most common questions is "when will this secular bear market end," the table in Figure 5 seeks to answer that question and to highlight that secular market cycles are determined by 'distance' and not by 'time'.

Figure 5. Distance To The Next Secular Bull?

	AS OF: SEP 30, 2012		ADJUSTED[1]	CRESTMONT[2]
"P"	Closing Price (S&P 500 Index)[3]		1441	1441
"E"	Current Estimate (S&P 500 EPS)[4]		$67	$69
P/E	Price/Earnings Ratio[5]		21.5	20.8
	Historical Secular Bull Start	10.0		
	Implied S&P 500 Index		669	694
	Distance Away		-54%	-52%

Notes 1-5: see footnotes in Figure 1

POTENTIAL DISTANCE

As reflected in Figure 6, the current level of stock market valuation, as reflected in the P/E, provides the potential for relatively-attractive gains if financial markets stabilize, economic growth continues on average at historical growth rates, and inflation remains relatively low.

A P/E of 22.5 is used as a mid-range for P/Es in low inflation and low interest rate environments with historically average economic and earnings growth.

Figure 6. Stock Market Gain/Loss To Low Inflation P/E Levels

	AS OF: SEP 30, 2012			CRESTMONT[2]
"P"	Closing Price (S&P 500 Index)[3]			1441
"E"	Current Estimate (S&P 500 EPS)[4]			$69
P/E	Price/Earnings Ratio[5]			20.8
		P/E	EPS	
	3-Year Restoration (3Q2015)	22.5		
	Projected Normalized EPS[2]		$84	
	Implied S&P 500 Index			1900
	Annual Compounded Gain			9.7%
	5-Year Restoration (3Q2017)	22.5		
	Projected Normalized EPS[2]		$93	
	Implied S&P 500 Index			2095
	Annual Compounded Gain			7.8%

Notes 1-5: see footnotes in Figure 1

CONCLUSION

Today's P/E is approximately 20.8; the stock market remains in secular bear market territory—close to the mid-range of fair value assuming a relatively low inflation and low interest rate environment. It is historically consistent for secular bear markets to present shorter-term periods of strong returns (*cyclical* bull markets) followed by periods of market declines (*cyclical* bear markets).

The only way to reposition into a secular bull market is to experience a decline in the stock market due to significant inflation or deflation. This can occur either by a significant decline over a short period of time (e.g. the early 1930s secular bear market) or by minimal decline over a longer period of time (e.g. the 1960s-1970s secular bear market).

This report assesses the current valuation level in the context of the longer-term market environment. The goal is to help investors and market spectators to assess more quickly the current conditions.

In this environment, as described in chapter 10 of *Unexpected Returns*, investors should take a more active "rowing" approach (i.e. diversified, actively managed investment portfolio) rather than the secular bull market "sailing" approach (i.e. passive, buy-and-hold investment portfolio over-weighted in stocks).

Author's Note: For readers that are interested in the topics included in the report and elsewhere at CrestmontResearch.com, please note that the just-released book *Probable Outcomes: Secular Stock Market Insights* provides greater detail about normalizing EPS and P/E than was presented in *Unexpected Returns*. *Probable Outcomes* was written to answer two recently popular questions. First, is this secular bear market almost over? Second, what are the likely returns from the stock market over the decade of the 2010s? For more details, please visit www.ProbableOutcomes.com.

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.*

APPENDIX A
RECENT STATUS

Following are the summaries from the first page of all prior reports for historical perspective. The first P/E Report was published on September 30, 2008.

(Second Quarter 2012)
The stock market declined slightly over the past quarter. As a result, P/E decreased somewhat, yet remains within the range of "fairly-valued." The reported P/E is distorted well below the normalized P/E due to currently high and unsustainable profit margins. The perception of low P/E valuation is likely providing support for the stock market. If the next downward leg in the business cycle is postponed for another year or longer, and if other economic and international headwinds remain contained, then the market could resurge toward new highs. At the same time, investors should remain cognizant of the risks confronting an increasingly vulnerable market.

(First Quarter 2012)
The stock market increased significantly over the past quarter. As a result, P/E has increased further into the range of "fairly-valued." The reported P/E is distorted well below the normalized P/E due to currently high and unsustainable profit margins. The perception of low P/E valuation is likely providing support for the stock market. If the next downward leg in the business cycle is postponed for another year or longer, and if other economic and international headwinds remain contained, then the market could resurge toward new highs. At the same time, investors should remain cognizant of the risks confronting an increasingly vulnerable market.

(Fourth Quarter 2011)
As the result of a significant increase in the market over the past quarter, P/E has increased somewhat to approach "near fairly-valued." The apparent P/E, based upon reported and expected future earnings, is likely providing support for the stock market. If the next downward leg in the business cycle is postponed for another year or longer, and if other economic and international headwinds remain contained, then the market could resurge toward new highs. At the same time, investors should remain cognizant of the risks confronting a vulnerable market.

(Third Quarter 2011)
P/E, as the result of a significant decline in the market over the past quarter, has decreased somewhat to be "slightly undervalued." The momentum of the market has further stalled over the past quarter and current levels indicate that the stock market is either vulnerable to further cyclical downturn or likely to resurge toward new highs. Of particular note, reported EPS is well above the long-term baseline earnings trend. Therefore, reported P/E is distorted low and may continue to be further distorted over the next year or two until a decline in reported earnings causes EPS to fall below the baseline.

(Second Quarter 2011)

P/E, as the result of a near flat market over the past quarter, has decreased minimally and remains "near fairly-valued." The momentum of the market has stalled somewhat over the past quarter and current levels indicate that the stock market is vulnerable over the next year or two to another cyclical downturn. Of particular note, reported EPS is well above the long-term baseline earnings trend. Therefore, reported P/E is distorted low and may continue to be further distorted over the next year or two until a decline in reported earnings causes EPS to fall below the baseline.

(First Quarter 2011)

P/E, as the result of market gains in excess of underlying economic and earnings growth, has increased further into the normalized valuation range and remains "near fairly-valued." The momentum of the market remains upward (note that cyclical trends tend to over-shoot fair value), but current levels indicate that the stock market is vulnerable over the next year or two to another cyclical downturn. Of particular note, reported EPS is well above the long-term baseline earnings trend. Therefore, reported P/E is distorted low and is likely to continue to be further distorted over the next year or two until a decline in reported earnings causes EPS to fall below the baseline.

(Year-End 2010)

P/E, as the result of the market surge, is near the middle of the normalized valuation range and is now 'near fairly-valued'. The momentum of the market remains upward (note that cyclical trends tend to over-shoot fair value), but current levels indicate that the stock market is becoming vulnerable over the next year or two to another cyclical downturn. Of particular note, reported EPS is again above the long-term baseline earnings trend. Therefore, reported P/E is distorted low and is likely to continue to be further distorted over the next year or two until a decline in reported earnings causes EPS to fall below the baseline.

(Third Quarter-End 2010)

P/E returned to the lower half of the normalized valuation range and is now 'slightly undervalued'; the stock market remains positioned for above-average returns over the next year or two (assuming that the economy is not expected to enter a multi-year period of significant deflation or relatively high inflation). Notwithstanding the overall trend, remain aware that typical market volatility makes it likely that the recent significant short-term swings and market corrections may continue. Of particular note, reported EPS again is above the long-term baseline earnings trend. Therefore, reported P/E is distorted low and is likely to continue to be further distorted over the next year or two.

(Second Quarter-End 2010)

P/E has dipped to or just below the normalized valuation range and is now 'somewhat undervalued'; the stock market remains positioned for above-average returns over the next year or two (assuming that the economy is not expected to enter a multi-year period of significant deflation or relatively high inflation). Notwithstanding the overall trend, remain aware that typical market volatility makes it likely that the recent significant short-term swings and market corrections may continue or occur again later this year.

(First Quarter-End 2010)
P/E remains 'slightly undervalued' in the lower half of the normalized valuation range; the stock market remains positioned for nearer-term above-average returns (assuming that the economy is not expected to enter a multi-year period of significant deflation or relatively high inflation). Notwithstanding the nearer-term trend, remain aware that typical market volatility makes it increasingly likely that the market will experience significant short-term swings—recent market volatility has been unusually low.

(Year-End 2009)
P/E remains 'slightly undervalued' toward the lower end of the normalized valuation range; the stock market remains positioned for nearer-term above-average returns (assuming that the economy is not expected to enter a multi-year period of significant deflation or relatively high inflation). Notwithstanding the nearer-term trend, remain aware that typical market volatility makes it increasingly likely that the market will experience significant short-term swings. The 'Reported' measure of EPS and P/E, reflecting the most recent four quarters, continues to become less distorted as earnings recover from the recession.

(Late Fourth Quarter 2009)
P/E, despite recent market gains, remains 'slightly undervalued'; the stock market remains positioned for nearer-term above-average returns (assuming that the economy is not expected to enter a multi-year period of significant deflation or relatively high inflation). Notwithstanding the nearer-term trend, remain aware that typical market volatility makes it likely that the market will experience significant short-term swings.

(Third Quarter-End 2009)
P/E, despite recent market gains, is 'slightly undervalued'; the stock market remains positioned for nearer-term above-average returns (assuming that the economy is not expected to enter a multi-year period of significant deflation or relatively high inflation). Notwithstanding the nearer-term trend, remain aware that typical market volatility makes it likely that the market will experience significant short-term swings.

(Early Third Quarter 2009)
P/E, despite recent market gains, remains 'somewhat undervalued'; the stock market remains positioned for nearer-term above-average returns (assuming that the economy is not expected to enter a multi-year period of significant deflation or relatively high inflation).

(Mid Second Quarter 2009)
The P/E has returned to near year-end 2008 levels and is 'somewhat undervalued'; the stock market remains positioned for nearer-term above-average returns (assuming that the economy is not expected to enter a multi-year period of significant deflation or relatively high inflation).

(Mid First Quarter 2009)
The 18.6% year-to-date decline has returned P/E to fairly undervalued (from 'somewhat undervalued') and has positioned the market for nearer-term above-average returns

(assuming that the economy is not expected to enter a multi-year period of significant deflation or relatively high inflation).

<u>(Year-End 2008)</u>
Despite a modest recovery in the stock market since the most recent report, P/E remains somewhat undervalued and positioned for nearer-term above-average returns (assuming that the economy is not expected to enter a multi-year period of significant deflation or relatively high inflation).

<u>(Mid Fourth Quarter 2008-II)</u>
The declines in the stock market that have continued during the fourth quarter have been significant enough to further change the status: P/E is now fairly undervalued and positioned for nearer-term above average returns (assuming that the economy is not expected to enter a multi-year period of significant deflation or relatively high inflation).

<u>(Mid Fourth Quarter 2008)</u>
The declines in the stock market during October have been significant enough to change the status: P/E is now relatively undervalued and positioned for nearer-term above average returns (assuming that the economy is not expected to enter a multi-year period of significant deflation or relatively high inflation).

<u>(Late Third Quarter 2008)</u>
The reported price/earnings ratio ("P/E") in recent years was distorted downward due to an interim peak in the earnings cycle. The reported P/E ratio has been restored to near normalized levels as the result of the reversion of earnings to near long-term trend levels. The normalized P/E is relatively-high in relation to historical averages, a reflection of relatively-low expected inflation (and long-term interest rates). But, P/E is now highly-vulnerable to decline due to expectations by some toward higher inflation and by others toward potential deflation. Low, stable inflation is required to sustain P/Es at or above 20.

APPENDIX B
EARNINGS HISTORY & FORECASTS

Why does the version of “earnings” matter?

Stockholders generally value the stocks of publicly-traded companies based upon their future cash flows, which is largely based upon future dividends (academics employ the principles of the so-called Dividend Discount Model). To grow, companies need to retain a certain amount of their earnings; the remainder of the earnings is available to pay dividends. Dividends are paid from net earnings—net earnings are also the basis of historical P/E ratios.

History confirms the basic economic principles: Earnings go through a cycle of above-average growth followed by short-term declines. Some of the short-term declines occur due to one-time charges, yet other factors also impact profit margins. Analysts have been pressured to develop a measure of earnings that is less volatile than reported earnings—a measure that is now known as ‘operating earnings per share’. Although ‘as reported’ earnings are based upon detailed accounting principles (known as GAAP), ‘operating earnings’ is a measure of profits that is developed by adding-back subjectively determined charges that reduced earnings. There are agreed standards for ‘as reported’ earnings; there is not a standard for ‘operating earnings’.

As reflected in Figure 7, there are several measures of earnings. Two of them vary significantly; one of them is fairly stable.

“As Reported” earnings reflects the past and projected (by S&P analysts) net income from the five hundred large companies in the S&P 500 Index. This measure is based upon Generally Accepted Accounting Principles (GAAP) and is the measure that historical averages are based upon.

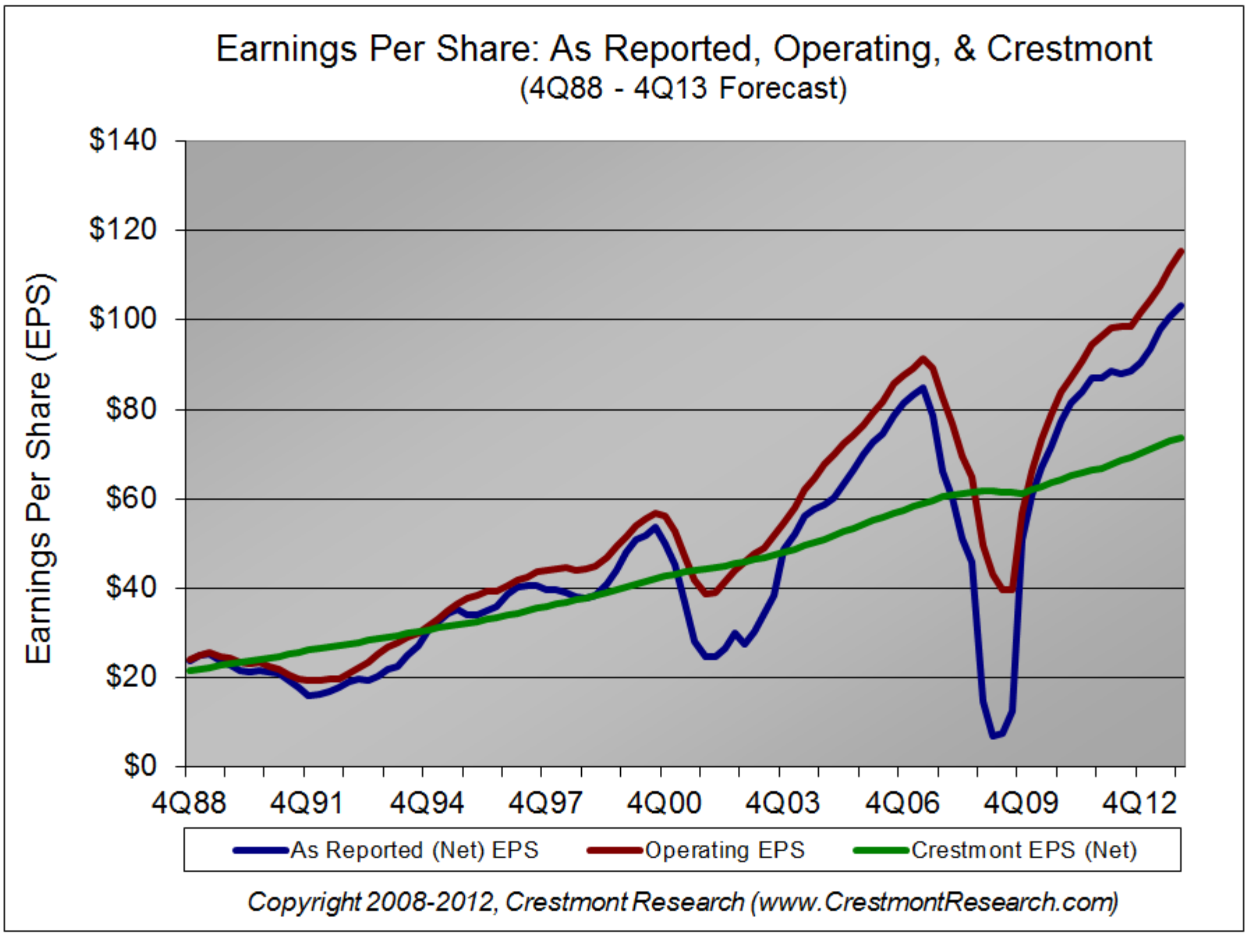
“Operating” earnings reflects a subjective measure of earnings (by other S&P analysts) that adds back certain costs and charges. It attempts to reduce the impact of the business cycle and one-time charges, yet it is generally considered to be an optimistic view of earnings. *This measure of earnings per share (EPS) is NOT comparable to the long-term average P/E, since operating earnings excludes a variety of costs and charges that reduce the funds available for dividends.* On average, ‘Operating EPS’ is almost 20% more than ‘As Reported EPS’. Since operating earnings is often viewed on a projected basis, the historical average price/earnings ratio (P/E) based upon “Operating EPS” is closer to 10. This contrasts to the historical average P/E based upon ‘As Reported EPS” of 15.

“Crestmont” earnings is based upon the long-term relationship of earnings to economic growth. As described in *Unexpected Returns*, the relationship is fairly consistent over time and is a good measure of the baseline for earnings. ‘As Reported EPS’ has for decades varied around the Crestmont baseline. Crestmont has found that the market tends to anticipate the long-term trend and the market resists the temptation to fully-adjust to the short-term business cycle of earnings. In other words, the market tends to stall at the highs in the earnings cycle (e.g. 2007) and tends to resist declining when earnings are near cycle lows (e.g. 2002).

Figure 7 presents EPS from Standard And Poor's for "As Reported" and "Operating" (actual through 2011; forecast for 2012 & 2013) and from Crestmont through 2013.

Note particularly the widening divergence for 2012 and 2013 between the forecast for As Reported EPS and Operating EPS! The most recent forecast revisions reflect a return to higher values from the As Reported team… Watch this relationship and the forecasts closely—it may be that a decline in EPS may soon be on the horizon!

Figure 7. Earnings Per Share: As Reported, Operating EPS, & Crestmont EPS



APPENDIX C
ALTERNATE ECONOMIC SCENARIOS

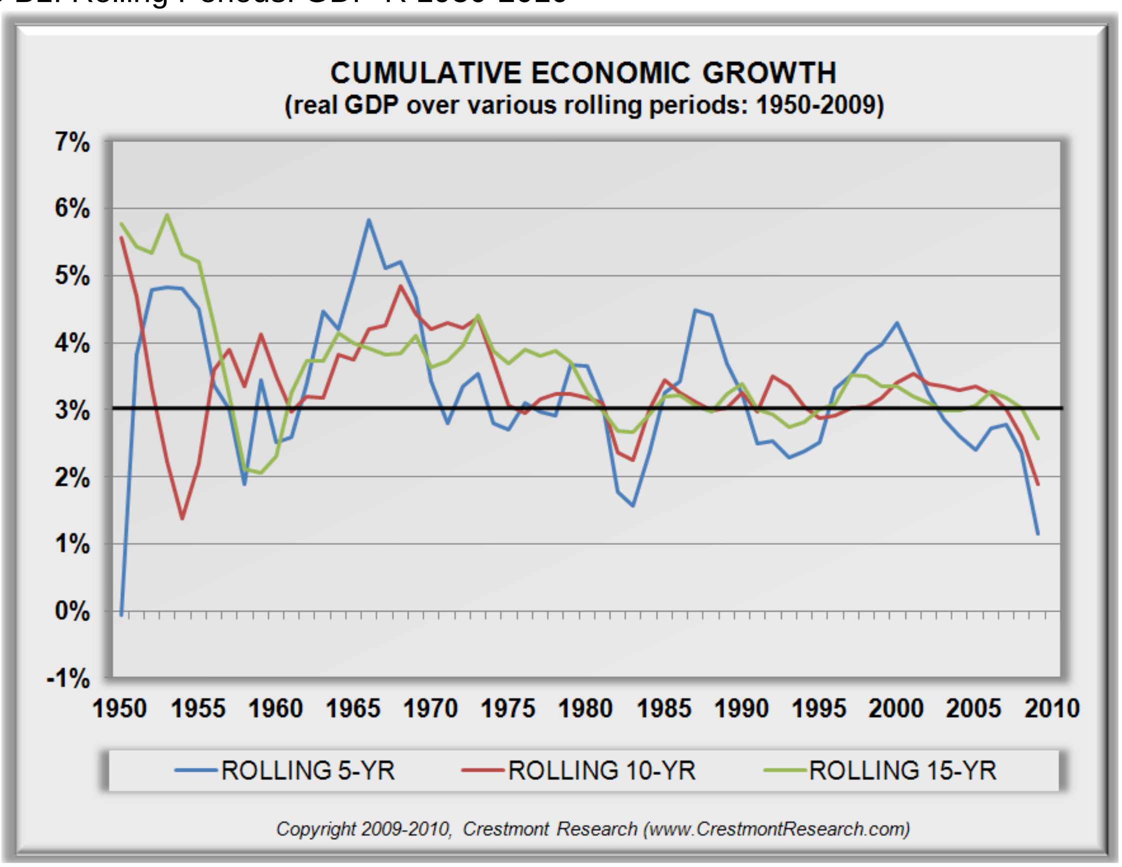
Consternation [con-ster-na-tion]
A sudden overwhelming fear and alarm resulting from the awareness of danger that results in confusion and dismay…

And so it was for Alice falling through the looking glass, now we confront a new frontier of uncertainties. One is an outlook that leads to high clouds; the other explains our current circumstance and may lead to further declines in the financial markets (particularly the stock market).

IS A PRIOR 'GIVEN' UNCERTAIN NOW?

During the last century, real economic growth averaged near 3%. The previous three completed decades delivered 3.2%, 3.0%, and 3.2% respectively. Yet, the most recent decade (2000-2009) posted real economic growth just below 2%. Is this an aberration or a new trend?

Figure B1: Rolling Periods: GDP-R 1950-2010



Aberration

Aberration is our first scenario. Numerous economists were consulted and various data were evaluated—there do not appear to be generally-recognized reasons that explain the sudden shift in real economic growth during the current decade to near two-thirds of both the historical average and prior three decades. The most reasonable explanation is that the decade of 2000 includes two recessions that coincidentally bookend the period. A graphical review (Figure B1) of economic growth history using 5, 10, and 15-year rolling periods reflects a common pattern. Thus, the decade of 2000-2009 could be a statistical anomaly.

Trend

Trend is our second scenario. Trends don't require an explanation to be valid…maybe the reason will be known some day in the future. What are the implications IF 2% is the new trend growth rate?

Stocks are simply financial instruments—a payment today for the right to future cash flows. It sounds hard and cold, yet that's it. We invest in financial instruments to get a return. The level of return is determined based upon market rates (driven by expected inflation) and the probability of losses. For this discussion, let's eliminate the impact of a change in inflation and the probability of losses…so it only leaves the future cash flows. For stocks, the future cash flow stream (over the longer-term) is driven by economic growth. Therefore, if economic growth slows, the future cash flows (i.e. dividends from earnings) from stocks also are reduced.

So to get the same level of investment return, an investor must pay a lower initial price for the reduced cash flows to produce the same expected return. What? …to get similar returns, an investor must pay less if there are lower cash flows to make the same return?

Yes. The impact on stock market valuations—if we have down-shifted to 2% real economic growth—is a drop in the average P/E of about 4 points. As a result, the average would decline to 11.5 rather than the historical 15.5 (assuming a repeat of historical inflation cycles). This effect is greater as P/E increases. The natural peak during periods of low inflation would be near 15 rather than the mid-20s.

Few economists, financial analysts, nor this author conclude that this has occurred, yet with the uncertainty of the expected future real economic growth rate, this issue should be better understood.

Reversion

Reversion is our third and final scenario. Hope springs eternal…

Maybe the long-term trend is not lost. This scenario assumes that the factors of economic growth will continue at nearly the same rate: working population growth may not decline due to delayed baby boomer retirements and productivity won't show a proclivity to fall. As a result, we may be due for a surge in economic growth (typical of post-recession periods) that restores the long term average to *average*. That would portend a period (maybe a full decade) when quite a few years deliver real economic growth that exceeds the historical average 3% rate (maybe more than 4%, to restore the long-term average to the average).

CONCLUSION

Has the decade of the 2000s been an aberration…thus the long-term trend growth rate (and next decade's growth rate) for the economy will return to 3%? The implication for P/E is an average near 15.5 and peak near 25…

Has the economic growth rate down-shifted to near 2%...thus the long-term trend growth rate for the economy would be significantly below 3%? The implication for P/E is an average below 11.5 and peak near 15…

Is the decade of the 2000s a coincidental period with two recessions…positioning for an upcoming period for above-average growth that restores the long-term average to average? Since the long-term growth rate of 3% would remain intact, P/E should average 15.5 and peak near 25, yet the psychological impact on the market of such rapid growth could drive a near-term overshooting of the fair value level…

Author's Note: This issue is a major topic with substantial implications for stock market returns over the current decade and longer. This is a significant issue explored in recently-released Probable Outcomes: Secular Stock Market Insights (for more details, please visit www.ProbableOutcomes.com).