CRESTMONT RESEARCH

THE P/E REPORT:
ANNUAL REVIEW OF THE PRICE/EARNINGS RATIO
By Ed Easterling
January 15, 2024 Update

NOTE: The P/E Report is an annual review of P/E, earnings, and related outlooks. The P/E Summary provides quarterly updates, including a brief summary of key measures.

	AS OF: DEC 31, 2023	REPORTED	ADJUSTED[1]	CRESTMONT[2]
"P"	Closing Price (S&P 500 Index)[3]	4770	4770	4770
"E"	Current Estimate (S&P 500 EPS)[4]	$194	$151	$137
P/E	Price/Earnings Ratio[5]	24.6	31.7	34.8

Notes:
(1) adjusted using the methodology popularized by Robert Shiller (Yale; Irrational Exuberance*), as modified for quarterly data (CAPE P/E 10)*
(2) based on the 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 on 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 **(Fourth Quarter 2023)**
In the fourth quarter, the stock market added 11.2% to its rebound, increasing the year's gain to 24.2% for 2023. As a result, normalized P/E ended at 34.8 (and 31.7 for P/E10) at year-end. As Reported P/E remains lower, yet elevated, at 24.6. EPS continues to sustain most of the 2021 surge, which was an increase of more than 40% compared to pre-Covid levels.

The proverbial elephant in the room is the level of EPS. The market appears to accept that the level of EPS has established a new base for future EPS growth. That is the most significant assumption driving the stock market's current level. The next few years of stock market performance likely will be determined by the future level of EPS.

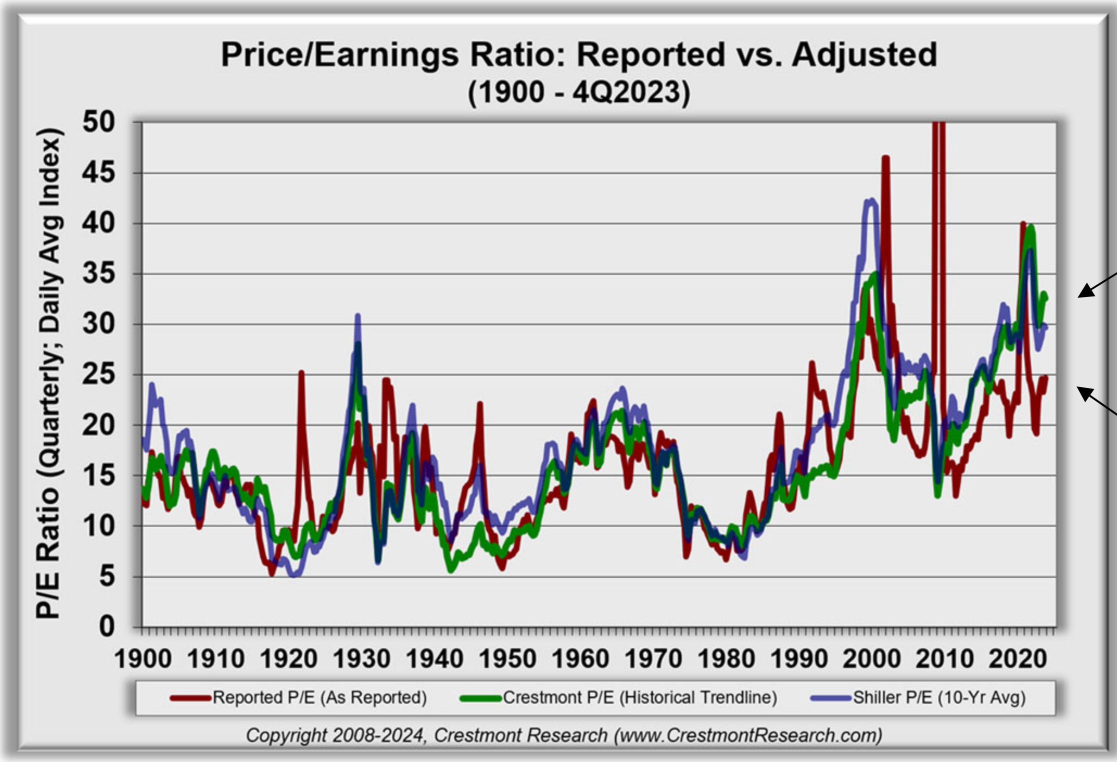
NOTE: Crestmont Research does not analyze the stock market or interest rates with a perspective about near-term direction or trends; Crestmont Research focuses on a longer-term, bigger-picture view of market history and its fundamental drivers. Occasionally, the analysis indicates that a position has 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.

THE BIG PICTURE

The price/earnings ratio (P/E) 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 of earnings that investors are willing to pay for stocks. Although we'll discuss the business cycle and its periodic distortion of "reported" P/E later, most references to P/E in this report will relate to one or more versions of normalized P/E (i.e., adjusted for those periodic distortions).

Stocks are financial assets that provide a return through dividends and price appreciation. Both dividends and price appreciation are generally driven by increases in earnings. Over time, earnings tends to increase at a similar rate as economic growth.

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



Note: Both measures of normalized P/E remain elevated, even following declines in 2022.

The 2021 surge in reported earnings reduced reported P/E. EPS has remained elevated and is beginning to demonstrate a new, higher level.

Historically (and based on 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, 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.

The P/E cycle is driven by the inflation rate, which is the loss of the purchasing power of money and capital. During periods when the inflation rate is expected to accelerate for an extended term, investors seek a higher rate of return to compensate for inflation. The market mechanism to achieve higher returns from stocks is the repricing of valuations downward (i.e., lower P/E). Lower prices increase dividend yield and position stocks to provide an additional return when valuations reprice higher as inflation declines.

Therefore, higher inflation leads to lower P/E, and declining inflation leads to higher P/E. That said, P/E did not decline substantially during the recent years of higher inflation. Market measures of expected inflation did not increase substantially as the inflation surge was expected to be transitory. As a result, the current declining inflation may not lift P/E in the same ways and magnitude as past inflation cycles.

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/E also declines under deflation.

Therefore, for this discussion, assume that there are three general scenarios for inflation: rising, low, and deflation. As discussed above, rising inflation or deflation over an extended period causes P/E to decline, creating a period of below-average returns known as 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. The result is a period of above-average returns, known as a secular bull market.

Secular bull markets can only occur when P/E gets 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. Instead, they are dependent upon distance—as measured by the decline in P/E to a low enough level to enable a subsequent significant increase.

Cyclical vs. Secular

The current normalized P/E is 34.8—above the level justified by the longer-term expectation of low inflation (*assuming historically average economic growth*). Secular market conditions are driven by longer-term annual trends rather than momentary market circumstances.

Many investors and pundits see the current (and/or recent) secular cycle as a secular bull. That's a reasonable view. In contrast, Crestmont assesses the secular market cycle based mostly on the *potential* for future above-average or below-average gains, rather than based on a recent or current upward trend.

The level of market valuation (i.e., normalized P/E) is the most significant determinant of future long-term returns. A market environment with high valuation inevitably leads to an era of below-average returns. Not only is dividend yield lower when P/E is higher, the range of change for P/E skews lower when P/E starts higher. Although the current environment has characteristics of a secular bear market, it also has been surging in ways reminiscent of a secular bull.

For now, let's designate the current market environment as "relatively highly valued." Time will inform whether the new, higher level of earnings (following its 2021 doubling) is sustained as a new normal. Also, it will be important to assess whether the relatively higher level of P/E over the past decade becomes the new set point.

If both endure, then we likely will have entered a new era where future returns will no longer average 10% due to lower dividend yields. The long-term average return of 10% includes 4% related to dividend yield. Current higher valuations have driven dividend yield to 1.5%.

We're in an environment with many daily (often hourly) points representing pixels in the market's picture. The market's short-run trends (the cyclical cycles) are hard to predict. As a result, the best plan may be a diversified, non-correlated portfolio with a few financial 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 on (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 near 16 based on 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 just over one multiple point lower (i.e., approx. 15). Further, if forecast earnings is used, the average normalized P/E would be reduced by approximately one multiple point to near 14.

[Note that the average reported P/E from 1900 to 2016, unadjusted for the business cycle and adjusted for the late 1990s bubble, is near 15. During significant earnings declines, P/E based on reported earnings has at times spiked to distorted levels over 100. Such significant distortions in P/E distort the average. Excluding P/Es over 50 reduces the average to near 14. Further removing an equal number of more extreme high and low values, the average settles near 14.5. There is no single "right" average for P/E, yet a value near 15 would be representative of the average historical As Reported P/E.]

(b) Substituting forward operating earnings for trailing net earnings would further reduce the normalized average P/E by almost three points to 12.

(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/E based on trailing reported net earnings should be compared only to its historical average near 15. When ten years of real net earnings is used in P/E (i.e., Shiller P/E10), the relevant average is close to 16 (i.e., somewhere between 16+ using all years and ~15 excluding extreme high years).

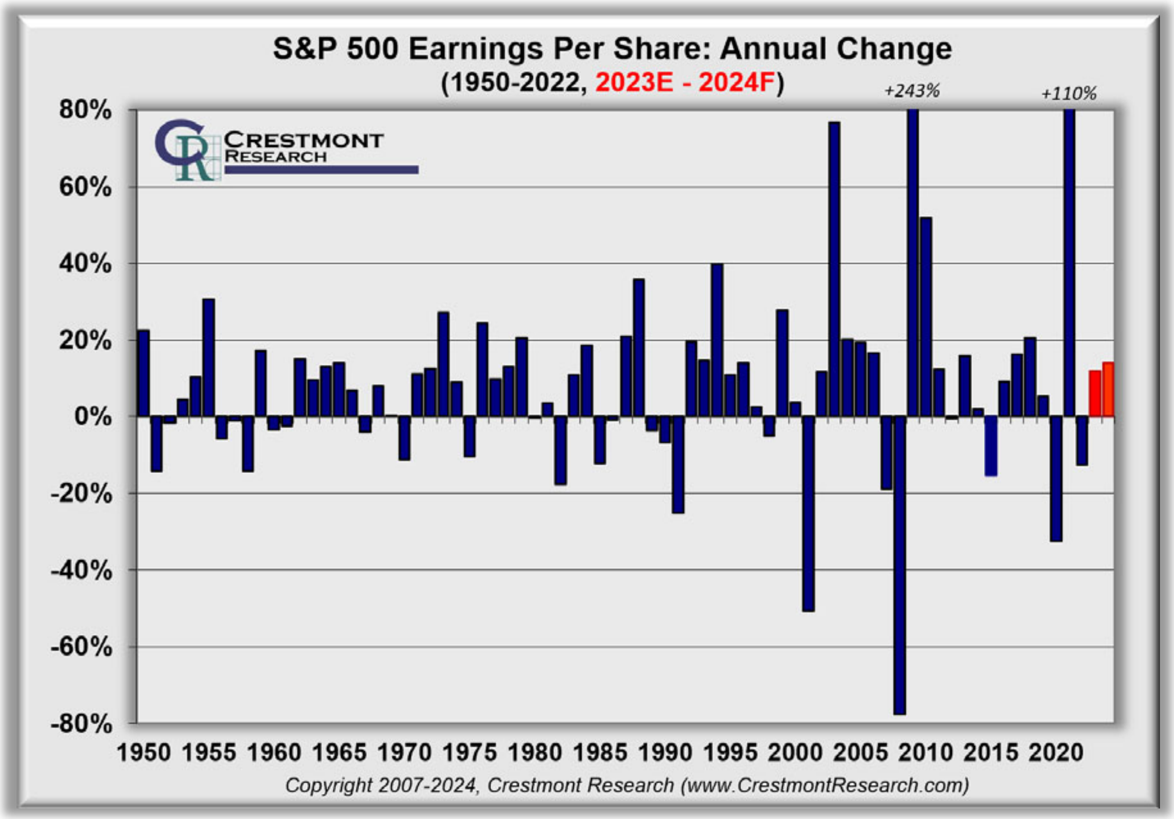
Too often, writers and analysts compare P/E based on forecast operating earnings to the average for trailing reported net earnings. Although long-term forward operating earnings data is not available, Crestmont Research has developed a representative series. The appropriate P/E using forward operating earnings is near 12.

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 and 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 Present)



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.

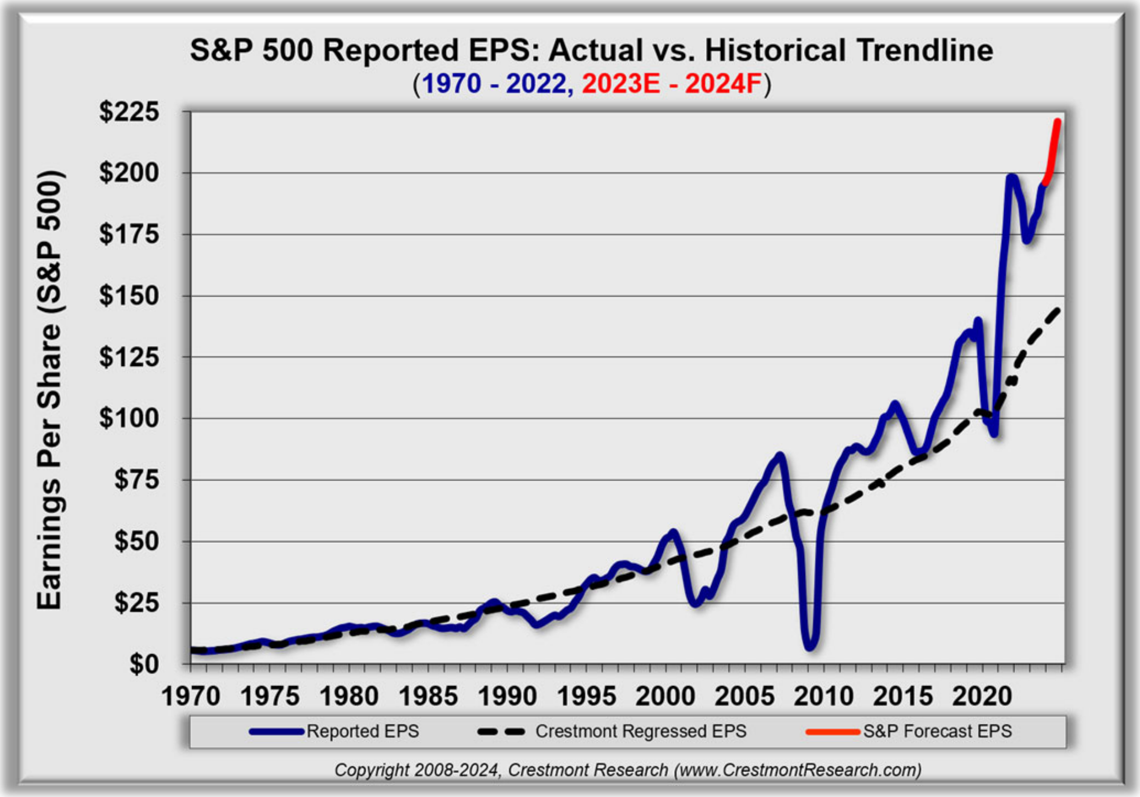
For example, looking back over the past six decades, Figure 2 presents the annual change in earnings historically reported by the S&P 500 companies and forecasted by Standard & Poors. This graph highlights the surge and decline cycle of earnings growth that is driven by the business cycle.

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.

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.

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



A great uncertainty going into 2022 was whether EPS would sustain its huge surge during 2021.

2022 EPS pulled-back about 10% from $198 to $180… yet sustained most of the significant gains from pre-Covid levels.

Further, EPS is currently expected to set new highs in 2023.

Well, the pundits were actually (sort of) right—P/E 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…

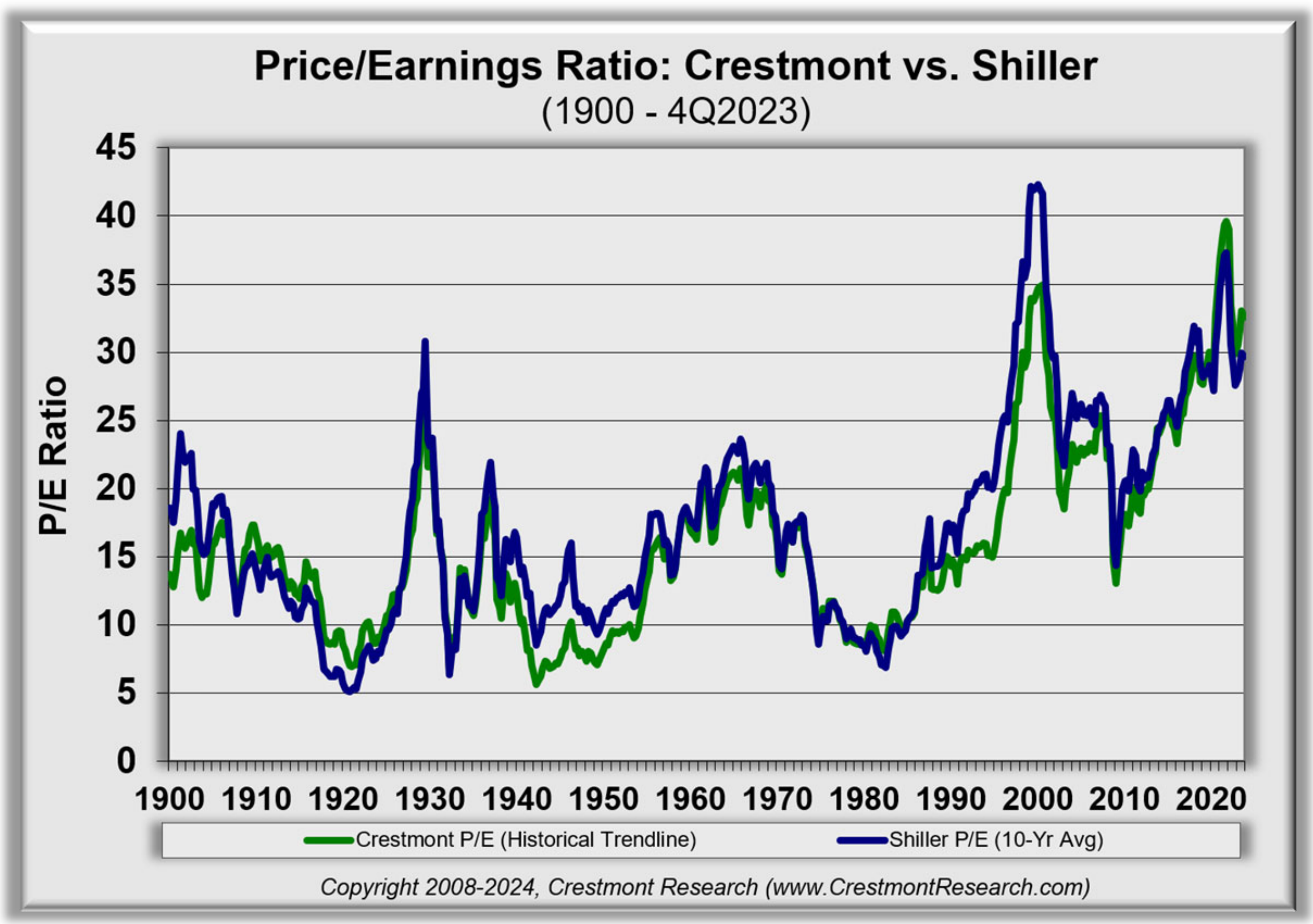
Many of the same pundits are now excited by current market conditions and again confident about the current level and future of E. Maybe this time will actually be different…or maybe not…

As for the market and P/E, it's understandable that conservative investors and market spectators have watched the past 10+ years with awe. Nonetheless, it is important to remain aware that typical market volatility also makes it 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 calculates 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.

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



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 in 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 on 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.

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 on future economic growth (which has been fairly consistent over time). Also, by comparing reported E to baseline E, analysts and investors can have a better understanding of the current position in the business cycle and the 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 enable it then to have a significant increase. *Whether or not the recent or current market is designated as a secular bull market, the current "relatively high valuation" condition inhibits the potential for the next decade to be a secular bull market.*

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/E below 10).*

Figure 5. Distance To The Next Secular Bull?

	AS OF: DEC 31, 2023		ADJUSTED[1]	CRESTMONT[2]
"P"	Closing Price (S&P 500 Index)[3]		4770	4770
"E"	Current Estimate (S&P 500 EPS)[4]		$151	$137
P/E	Price/Earnings Ratio[5]		31.7	34.8
	Historical Secular Bull Start	10.0		
	Implied S&P 500 Index		1506	1371
	Distance Away		-68%	-71%

Notes 1-5: see footnotes in Figure 1

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 a lower level for P/E and keep current conditions in hibernation. The result for the next 5-10 years would be approximately 6% annualized total returns from the stock market including inflation. Although that level of return may be disappointing, it would avoid the devastatingly low returns marked by a significant decrease in P/E (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 the next secular bull market start,” 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’. The table reflects that the market would need to decline significantly to reach the minimum typical starting level for a secular bull market. In reality, since any such decline would take months or years, natural earnings growth would mitigate some of the decline, and the market would reach a P/E of 10 at a modestly higher level.

POTENTIAL DISTANCE

Figure 6 demonstrates just how high stock market valuation (P/E) has risen. P/E of 22.5 is used as a mid-range for P/E in a low inflation and low interest rate environment with historically average economic and earnings growth. Earnings are projected based on average growth rates and a reversion to more typical profit margins (from currently elevated profit margins). The table reflects that cumulative losses would be required over three-year and five-year periods to return P/E to mid-range fair value levels.

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

	AS OF: DEC 31, 2023			CRESTMONT[2]
“P”	Closing Price (S&P 500 Index)[3]			4770
“E”	Current Estimate (S&P 500 EPS)[4]			$137
P/E	Price/Earnings Ratio[5]			34.8
		P/E	EPS	
	3-Year Restoration (4Q2025)	22.5		
	Projected Normalized EPS[2]		$160	
	Implied S&P 500 Index			3590
	Annual Compounded Gain			-9.0%
	5-Year Restoration (4Q2027)	22.5		
	Projected Normalized EPS[2]		$177	
	Implied S&P 500 Index			3972
	Annual Compounded Gain			-3.6%

Notes 1-5: see footnotes in Figure 1

OUTLOOK

The outlook may be uncertain, but that does not make it unpredictable. The inflation rate could remain low and stable, thereby sustaining P/E in the range of 20 to 25. Alternatively, we could enter a sustained period of higher inflation or deflation, thereby P/E could decline to levels associated with the start of a typical secular bull (at or below 10). In between, P/E could downshift near its historical average around 15. The outlook may be uncertain, yet we can assess the range of potential outcomes using these three scenarios.

Consistent with a foggy crystal ball, the horizon is likewise variable. Some people may want to see the impact of a fast path (say, 5 years), while others may take a somewhat longer view of a decade or more.

Figure 7 is a forecasting tool with a matrix of outlooks based on your assumptions. Pick your time, pick your ending P/E, and add in dividend yield for the expected total return from the stock market. The magnitude of the annualized return (or loss) depends upon the investor's time period. Most notable, however, is that none of the scenarios provide average or above-average returns. As history has shown, average or above-average returns cannot occur from levels of relatively high valuation without the further multiple expansion of a rising P/E. From today's lofty levels, bubble conditions would be required… and that's not a reasonable assumption for any investor's portfolio.

Figure 7. Crestmont Research Outlook (S&P 500 Total Return)

AS OF: DEC 31, 2023	***TOTAL ANNUALIZED RETURN FOR S&P 500*** *(nominal returns)*		
	Ending P/E Ratio (P/E10)		
YEARS	**10**	**15**	**22.5**
5	-16.0%	-9.1%	-1.6%
7	-10.0%	-4.7%	0.8%
10	-5.6%	-1.8%	2.2%
20	0.6%	2.6%	4.7%

Notes 1-5: see footnotes in Figure 1; also, includes dividend yield of 2%

CONCLUSION

Today's P/E is 34.8; the stock market's valuation remains too elevated for a full secular bull market. The market is above the mid-range of fair value assuming a relatively low inflation and low interest rate environment. It is historically consistent for all market environments 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 stock market valuation due to significant inflation or deflation. This can occur either by a significant decline over a shorter period or by a minimal decline over a longer period.

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 assess the current conditions more quickly.

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).

Ed Easterling is the founder and president of Crestmont Research. He is the author of award-winning Unexpected Returns: Understanding Secular Stock Market Cycles and Probable Outcomes: Secular Stock Market Insights*. In addition, he previously served as an adjunct professor and taught a course on alternative investments and financial markets for MBA students at SMU in Dallas, Texas. 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.

(Fourth Quarter 2023)
In the fourth quarter, the stock market added 11.2% to its rebound, increasing the year's gain to 24.2% for 2023. As a result, normalized P/E ended at 34.8 (and 31.7 for P/E10) at year-end. As Reported P/E remains lower, yet elevated, at 24.6. EPS continues to sustain most of the 2021 surge, which was an increase of more than 40% compared to pre-Covid levels.

The proverbial elephant in the room is the level of EPS. The market appears to accept that level of EPS has established a new base level for future EPS growth. That is the most significant assumption driving the current level of the stock market. The next few years of stock market performance likely will be determined by the future level of EPS.

(Third Quarter 2023)
In the third quarter, the stock market decreased by -3.6%, and normalized P/E decreased to 32.1. The Adjusted P/E (Shiller's CAPE P/E10) fell to 28.8. Both normalized values are above the As Reported P/E of 22.9. All versions of P/E are relatively high for an environment with elevated inflation and rising interest rates.

For now, the stock and bond markets expect the recent surge in inflation will moderate back near 2% within the next three to five years. The outlook for inflation over the subsequent five years is currently expected to average 2.5%. Inflation at that level would justify normalized P/E in or below the low 20s.

Despite the decline in EPS last year-end, the market appears to accept that the doubling of EPS during 2021 will remain the new base level for future EPS growth. That is the most significant assumption driving the current level of the stock market. The next few years, and potentially some point in the meantime, will be determined by the future level of EPS.

(Second Quarter 2023)
In the second quarter, the stock market increased 8.3% and normalized P/E increased to 33.8. The Adjusted P/E (Shiller's CAPE P/E10) rose to 30.5. Both normalized values are above the As Reported P/E of 24.7. All versions of P/E are relatively high for an environment with elevated inflation and rising interest rates.

The stock and bond markets expect (for now) that the recent surge in inflation will moderate back near 2% within the next three to five years. The outlook for inflation over the subsequent five years is currently expected to average 2.3%. Inflation at that level would justify normalized P/E in the low to mid 20s.

Despite the decline in EPS last year-end, the market appears to accept that the doubling of EPS during 2021 will remain the new base level for future EPS growth. That is the most significant assumption driving the current level of the stock market. The next few years, and potentially some moment in the meantime, will be determined by the future level of EPS.

(First Quarter 2023)

In the first quarter, the stock market increased 7.0% and normalized P/E increased to 31.7. The Adjusted P/E (Shiller's CAPE P/E10) rose to 28.8. Both normalized values are above the As Reported P/E of 23.9, which was affected by the recent decline in earnings.

The stock and bond markets have resolved (for now) that the recent surge in inflation will moderate back near 2% within the next three to five years. The outlook for inflation over the subsequent five years is currently expected to average 2.2%. Inflation at that level would justify P/E in the low to mid 20s.

The proverbial elephant in the room has been the level of EPS. Despite the decline at year-end, the market appears to accept that the doubling of EPS during 2021 will remain the new base level for future EPS growth. That is the most significant assumption driving the current level of the stock market. The next few years, and potentially some moment in the meantime, will be determined by the future level of EPS.

(Fourth Quarter 2022)
In the fourth quarter, the stock market added 7.1% to its rebound, reducing the loss to 19.4% for 2022. As a result, normalized P/E landed at 31.4 at year-end. As Reported P/E remains lower at 21.2. EPS has sustained most of the 2021 surge, which was an increase of more than 40% compared to pre-Covid levels.

The proverbial elephant in the room is the level of EPS. The market appears to accept that level of EPS has established a new base level for future EPS growth. That is the most significant assumption driving the current level of the stock market. The next few years of stock market performance likely will be determined by the future level of EPS.

(Third Quarter 2022)
In the third quarter, the stock market was down 5.3%. As a result, normalized P/E decreased to 29.9. The Adjusted P/E (based on Shiller's CAPE P/E10 method) is 26.4. Both normalized values are significantly above the As Reported P/E of 18.8.

The stock and bond markets have resolved (for now) that the recent surge in inflation will moderate back near 2% within the next five years. The outlook for inflation over the subsequent five years is currently expected to average 2.2%. Inflation at that level would justify P/E in the low to mid 20s.

The proverbial elephant in the room is the level of EPS. The market appears to accept that the doubling of EPS during 2021 will remain the new base level for future EPS growth. That is the most significant assumption driving the current level of the stock market. The next few years, and potentially some moment in the meantime, will be determined by the future level of EPS.

(Second Quarter 2022)
In the second quarter, the stock market was down 16.4%. As a result, normalized P/E decreased to 32.2. The Adjusted P/E (based on Shiller's CAPE P/E10 method) is 28.2. Both normalized values are significantly above the As Reported P/E of 18.8.

The stock and bond markets have resolved (for now) that the recent surge in inflation will moderate back near 2% within the next five years. The outlook for inflation over the subsequent five years is currently expected to average 2.1%. Inflation at that level would justify P/E in the low to mid 20s.

The proverbial elephant in the room is the level of EPS. The market appears to accept that the doubling of EPS during 2021 will remain the new base level for future EPS growth. That is the most significant assumption driving the current level of the stock market. The next few years, and potentially some moment in the meantime, will be determined by the future level of EPS.

(First Quarter 2022)
In the first quarter, the stock market was down 4.9%. As a result, normalized P/E decreased to 39.6. The Adjusted P/E (based on Shiller's CAPE P/E10 method) is 35.2. Both normalized values are significantly above the As Reported P/E of 22.7.

Not only is the stock market largely ignoring the recent surge in the inflation rate, but the market also appears to accept that the doubling of EPS during 2021 will remain the new base level for future EPS growth.

The next few years, and potentially some moment in the meantime, will be determined by those two factors: P/E's response to inflation and the future level of EPS.

(Fourth Quarter 2021)
In the fourth quarter, the stock market added 10.6% to its cumulative 26.9% surge in 2021. As a result, normalized P/E increased to 44.6 at year end. As Reported P/E remained relatively similar, closing at 38.7.

P/E remains significantly above the level justified by low inflation and low interest rates. Either there is a yet-to-be-recognized reason for such elevated valuation, or the level of the market is unsupported by long-term fundamentals. As a result, the current status is designed as “irrationally overvalued.” Note that stock market valuation is in a zone of exuberance such that each higher level is similarly “high.”

(Third Quarter 2021)
In the third quarter, the stock market was virtually flat, gaining a mere 0.2%. As a result, normalized P/E decreased to 41.1—significantly above the level justified by low inflation and low interest rates. Although the market appears to remain “irrationally overvalued,” there could be factors justifying such high valuation and commensurately low expected return. As a result, the current status of the stock market is positioned for “substantially below-average long term returns.” Volatility, likewise, minimally changed over the quarter.

The next few years, and potentially some moment in the meantime, will be determined by one number: EPS. The current market environment can be summed up in two words: incongruity and divergence. See this quarter’s newsletter for more details.

(Second Quarter 2021)
In the second quarter, the stock market gained 8.2%. As a result, normalized P/E increased to 41.8—significantly above the level justified by low inflation and low interest rates. Although the market appears to remain “irrationally overvalued,” there could be factors justifying such high valuation and commensurately low expected return. As a result, the current status of the stock market is positioned for “substantially below-average long term returns.”

The level of volatility further moderated during the past quarter from above-average levels during the first quarter. The realignment of volatility with a strong market is normal and healthy.

(First Quarter 2021)

In the first quarter, the stock market gained 5.8%. As a result, normalized P/E increased to 39.4—significantly above the level justified by low inflation and low interest rates. Although the market appears to remain "irrationally overvalued," there could be factors justifying such high valuation and commensurately low expected return. As a result, the current status of the stock market is positioned for "substantially below-average long term returns."

The level of volatility moderated during the past quarter from ultra-high levels at year end. The realignment of modest volatility with a strong market is normal and healthy.

(Fourth Quarter 2020)
In the fourth quarter, the stock market added 11.7% to its cumulative 16.3% surge in 2020. As a result, normalized P/E increased to 38.2 at year end. As Reported P/E increased to 39.5 (also the result of a decline in earnings during 2020).

P/E remains significantly above the level justified by low inflation and low interest rates. Either there is a yet-to-be-recognized reason for such elevated valuation, or the level of the market is unsupported by long-term fundamentals. As a result, the current status is designed as "irrationally overvalued." Note that stock market valuation is in a zone of exuberance such that each higher level is similarly "high." The level of volatility generally increased throughout the past year, initially due to market declines from Covid uncertainties and later despite solid market gains. High volatility with rising valuation is an unusual condition.

(Third Quarter 2020)
In the third quarter, the stock market gained another 8.5%. As a result, normalized P/E increased to 35.4—significantly above the level justified by low inflation and low interest rates. The current status remains "significantly overvalued." The third quarter increase of 8.5% fully recovers the previous losses in 2020, and now has the S&P 500 Index up 4.1% for the year.

The level of volatility increased slightly during the past quarter. Typically, rising markets are associated with declining volatility. High valuation and high volatility reflect significant instability—especially during a period when the underlying fundamentals of the market and the economy are disrupted and uncertain.

(Second Quarter 2020)
In the second quarter, the stock market surged 20.0%. As a result, normalized P/E increased to 33.0—significantly above the level justified by low inflation and low interest rates. The current status remains "significantly overvalued." Note that the second quarter increase of 20% is equal in magnitude to the first quarter decline of -20%, yet the market remains down -4% for the year. The coincidence of offsetting percentages serves as a reminder that losses are disproportionate to gains for producing compounded returns. A -20% decline requires a 25% gain to breakeven.

The level of volatility remained elevated during the past quarter. High valuation and high volatility reflect significant instability—especially during a period when the underlying fundamentals of the market and the economy are disrupted and uncertain.

(First Quarter 2020)
In the first quarter, the stock market plunged -20.0%. As a result, normalized P/E decreased to 27.8—still significantly above the level justified by low inflation and low interest rates. The current status remains "significantly overvalued." Note that the first quarter decline erased just

slightly more than last year's extreme and unjustified gains. Unfortunately, the recent reduction in price has not yet restored fair value to the stock market.

The level of volatility surged during the past quarter, following a return to midrange levels during 2019. High valuation and low volatility were a risky combination for the market; high valuation and high volatility reflect significant instability—especially during a period when the underlying fundamentals of the market and the economy are disrupted and uncertain.

(Fourth Quarter 2019)

In the fourth quarter, the stock market added 8.5% to its cumulative 28.9% surge in 2019. As a result, normalized P/E increased to 35.1 at year end. As Reported P/E increased from 18.9 to 23. The difference between normalized P/E and reported P/E reflects the elevated level of profit margins, which suppresses currently reported measures of valuation.

A mix analysis explains the components of 2019's stellar stock market gains. Estimated EPS for 2019 is $140, 6% higher than 2018. Thus, EPS for 2019 increased in line with nominal GDP growth. As a result, the vast majority of market gains in 2019 were driven by multiple expansion (P/E).

P/E remains significantly above the level justified by low inflation and low interest rates. The current status remains "significantly overvalued." Note that stock market valuation is in a zone of exuberance such that each higher level is similarly "high." The level of volatility fluctuated during the past year, ultimately settling below-average consistent with a strong, upward market trend.

(Third Quarter 2019)

In the third quarter, the stock market gained an additional 1.2%. As a result, normalized P/E increased to 32.7—significantly above the level justified by low inflation and low interest rates. The current status remains "significantly overvalued." Note that stock market valuation is in a zone of exuberance such that each higher level (or slight decline) is equally "high."

The level of volatility remained elevated during the past quarter. The period of record-low volatility during 2017 and most of 2018 has clearly ended. High valuation and elevated volatility are an unusual combination for an extended period, which may indicate a change for one of the elements before long.

(Second Quarter 2019)

In the second quarter, the stock market gained an additional 3.8%. As a result, normalized P/E increased to 32.6—significantly above the level justified by low inflation and low interest rates. The current status remains "significantly overvalued." Note that stock market valuation is in a zone of exuberance such that each higher level (or slight decline) is equally "high."

The level of volatility rose further during the past quarter, following its surge during the previous quarter. Although the VIX is sending mixed signals versus other market measures of volatility, the period of record-low volatility during 2017 and most of 2018 is likely over. High valuation and rising volatility may indicate a correction in the near future.

(First Quarter 2019)

In the first quarter, the stock market rebounded 13.1%. As a result, normalized P/E increased to 31.8—significantly above the level justified by low inflation and low interest rates. The current status remains “significantly overvalued.” Note that stock market valuation is in a zone of exuberance such that each higher level (or slight decline) is equally “high.”

The level of volatility rose modestly during the past quarter, following its surge during the previous quarter. The period of record-low volatility during 2017 may be over. High valuation and low volatility were a risky combination for the market; high valuation and rising volatility may indicate a correction in the near future.

(Fourth Quarter 2018)
In the fourth quarter, the stock market plunged -14.0% for a cumulative -6.2% decline in 2018. As a result, normalized P/E declined from 32.1 to 28.9. P/E remains significantly above the level justified by low inflation and low interest rates. The current status remains “significantly overvalued.” Note that stock market valuation is in a zone of exuberance such that each higher level is equally “high.”

The level of volatility exploded during the past year, surging from historical record lows below 3.9% to near-average 14.4%. The VIX, a recognized index of stock market volatility, started 2018 near record lows of 10 and ended the year near 25. High valuation and rising volatility are a risky combination for the market.

Lastly, reported earnings reflect highly elevated profit margins. This provides the misleading effect of lowering the apparent valuation level (i.e., P/E). When reported earnings again returns to sustainable levels, the upward adjustment to “reported” P/E will likely be sobering. The Adjusted P/E10 and Crestmont P/E normalize elevated profit margins and provide a more representative level of P/E valuation.

(Third Quarter 2018)
In the third quarter, the stock market surged 7.2%. As a result, normalized P/E increased to 33.9—significantly above the level justified by low inflation and low interest rates. The current status remains “significantly overvalued.” Note that stock market valuation is in a zone of exuberance such that each higher level (or slight decline) is equally “high.”

The level of volatility rose modestly during the past quarter. The period of record-low volatility during 2017 may be over. High valuation and low volatility were a risky combination for the market; high valuation and rising volatility may indicate a correction in the near future.

(Second Quarter 2018)
In the second quarter, the stock market recovered 2.9%. As a result, normalized P/E decreased to 32.3—significantly above the level justified by low inflation and low interest rates. The current status remains “significantly overvalued.” Note that stock market valuation is in a zone of exuberance such that each higher level (or slight decline) is equally “high.”

The level of volatility stabilized during the past quarter. The period of record-low volatility during 2017 may be over. High valuation and low volatility were a risky combination for the market; high valuation and rising volatility may indicate a correction in the near future.

(First Quarter 2018)
In the first quarter, the stock market declined 1.2%. As a result, normalized P/E decreased to 31.3—significantly above the level justified by low inflation and low interest rates. The current status remains “significantly overvalued.” Note that stock market valuation is in a zone of exuberance such that each higher level (or slight decline) is equally “high.”

The level of volatility surged during the past quarter. The period of record-low volatility during 2017 may be over. High valuation and low volatility were a risky combination for the market; high valuation and rising volatility may indicate a correction in the near future.

That said, there are numerous tailwinds that could propel the market higher for some time. Regulatory reforms, tax reforms, welfare reforms, consumer and business confidence, etc. are pro-production and likely to create an environment that excites stock market investors. Nonetheless, from the current high level of valuation, such gains are borrowing from the future and not sustainable.

(Fourth Quarter 2017)

In the fourth quarter, the stock market added 6.1% for a cumulative 19.4% gain in 2017, well more than underlying economic growth. As a result, normalized P/E increased to 32.2—significantly above the level justified by low inflation and low interest rates. The current status remains “significantly overvalued.” Note that stock market valuation is in a zone of exuberance such that each higher level is equally “high.”

The level of volatility fell further during the past quarter, reaching record-low levels with many measures. The VIX, a recognized index of stock market volatility, has had fifty-two days below 10 this year. That’s 85% of all days below 10 since inception in 1990. Also, a twelve-month measure of volatility reached a record low since inception in 1950 (and ended the year barely above the record). It’s an eerie calm in the markets. High valuation and low volatility are a risky combination for the market.

(Third Quarter 2017)

In the third quarter, the stock market added 4.0% for a cumulative 12.5% gain in 2017, well more than underlying economic growth. As a result, normalized P/E increased to 30.7—significantly above the level justified by low inflation and low interest rates. The current status remains “significantly overvalued.”

The level of volatility fell further to an ultra-low level over the past quarter. The VIX, a recognized index of stock market volatility, has had twenty-four days below 10 this year. That’s almost three-quarters of all days below 10 since inception in 1990. Also, a twelve-month measure of volatility is now in the lowest 1.5% of all periods since 1950. It’s an eerie calm in the markets. The trend in reported earnings for the S&P 500 Index reflects a repeating pattern of overly-optimistic analysts’ forecasts. Earnings and volatility should be watched closely and investors should heighten their sensitivity to the risks confronting an increasingly vulnerable market.

(Second Quarter 2017)

In the second quarter, the stock market added 2.9% for a cumulative 8.2% gain in the first half, well more than underlying economic growth. As a result, normalized P/E increased to 29.8—significantly above the level justified by low inflation and low interest rates. The current status remains “significantly overvalued.”

The level of volatility remained low over the past quarter. The VIX, a recognized index of stock market volatility, has had seven days below 10 this year. That’s the same number of days below 10 as all prior years since inception in 1990. It’s an eerie calm in the markets. The trend in reported earnings for the S&P 500 Index reflects a repeating pattern of overly-optimistic analysts’ forecasts. Earnings and volatility should be watched closely and investors should heighten their sensitivity to the risks confronting an increasingly vulnerable market.

(First Quarter 2017)
In the first quarter the stock market surged 5.5%, well more than underlying economic growth. As a result, normalized P/E increased to 29.4—significantly above the level justified by low inflation and low interest rates. The current status remains "significantly overvalued."

The level of volatility plunged over the past quarter and is now in the lowest 4% of all periods since 1950. The trend in reported earnings for the S&P 500 Index reflects a repeating pattern of overly-optimistic analysts' forecasts. Earnings and volatility should be watched closely and investors should heighten their sensitivity to the risks confronting an increasingly vulnerable market.

(Fourth Quarter 2016)
In the fourth quarter, the stock market added another 3.3% to its tally for the year. As a result, normalized P/E increased to 27.9—well above the level justified by low inflation and low interest rates. The current status remains "significantly overvalued." The level of volatility declined further over the past quarter. The trend in reported earnings may be reversing from recent declines. Earnings and volatility should be watched closely and investors should remain cognizant of the risks confronting a vulnerable market.

(Third Quarter 2016)
The third quarter initially surged higher and then generally maintained its ground through the quarter. In the end, the stock market added 3.3% to the year's total and normalized P/E increased to 27.3—well above the level justified by low inflation and interest rates. The current status remains "significantly overvalued." The level of volatility pulled-back a bit over the past quarter; as a result, the trend for volatility is unclear over the near-term. The trend in actual and forecast earnings continues to slide. Earnings and volatility should be watched closely and investors should remain cognizant of the risks confronting a vulnerable market.

(Second Quarter 2016)
The second quarter was another period of vulnerability and resilience. The net effect of the stock market's gyration added 1.9% to the year's total. As a result, normalized P/E increased slightly to 26.7—well above the level justified by low inflation and interest rates. The current status remains "significantly overvalued." The level of volatility stalled over the past quarter, yet the trend appears to remain upward. The trend in actual and forecast earnings continues to slide. Earnings and volatility should be watched closely and investors should remain cognizant of the risks confronting a vulnerable market.

(First Quarter 2016)
The stock market swung dramatically during the first quarter and ended just 0.8% higher. As a result, normalized P/E remains unchanged at 26.5—well above the level justified by low inflation and interest rates. The current status remains "significantly overvalued." Volatility has continued to increase, yet it is not yet above average. The trend in actual and forecast earnings continues to slide. Earnings and volatility should be watched closely and investors should remain cognizant of the risks confronting a vulnerable market.

(Fourth Quarter 2015)
The stock market ended the fourth quarter with a gain of 6.5%. As a result, normalized P/E increased to 26.5—well above the levels justified by low inflation and interest rates. The current status has returned to "significantly overvalued." Volatility has continued to increase, yet it is not yet above average. The trend in actual and forecast earnings continues to slide. Earnings

and volatility should be watched closely and investors should remain cognizant of the risks confronting a vulnerable market.

(Third Quarter 2015)

The stock market ended the third quarter with a loss of -6.9%. As a result, normalized P/E declined to 24.9—at the upper end of levels justified by low inflation and interest rates. The current status thereby has changed to "near overvalued." Volatility has begun to increase, yet it is not yet consistently in the typical range. The trend in actual and forecast earnings continues to slide. Earnings and volatility should be watched closely and investors should remain cognizant of the risks confronting a vulnerable market.

(Second Quarter 2015)

The stock market ended the second quarter with a minimal loss of -0.2%. As a result, normalized P/E was virtually unchanged at 27.0—well above the levels justified by low inflation and interest rates. The current status remains near "significantly overvalued." Volatility remains unusually low in its cycle. The trend in earnings and volatility should be watched closely and investors should remain cognizant of the risks confronting an increasingly vulnerable market.

(First Quarter 2015)

The stock market gyrated since the start of the year, ending the first quarter with a minimal gain of 0.4%. As a result, normalized P/E was virtually unchanged at 27.3—well above the levels justified by low inflation and interest rates. The current status remains near "significantly overvalued." In addition, the forecast by Standard and Poor's for 2015 earnings per share (EPS) recently took a nosedive, declining 17% during one week in the first quarter. Volatility remains unusually low in its cycle. The trend in earnings and volatility should be watched closely and investors should remain cognizant of the risks confronting an increasingly vulnerable market.

(Fourth Quarter 2014)

The stock market surged over the past quarter, adding to gains during 2014 that far exceed underlying economic growth. As a result, normalized P/E increased to 27.2—well above the levels justified by low inflation and interest rates. The current status is approaching "significantly overvalued."

(Third Quarter 2014)

Over the past quarter, the stock market gyrated, only to end within a dozen points from where it started. However, the economy and normalized earnings increased just over 1%. As a result, normalized P/E decreased slightly to 26.3—yet the current status remains "overvalued." In addition, reported earnings continued its business-cycle surge. The economy again proved that profit margins at extreme highs can go higher. Volatility remains unusually low in its cycle. The trend in earnings and volatility should be watched closely and investors should remain cognizant of the risks confronting an increasingly vulnerable market.

(Second Quarter 2014)

Over the past quarter, the stock market reached new highs and posted solid gains of near 5%. However, the economy and normalized earnings increased just over 1%. As a result, normalized P/E increased to 26.5. In addition, reported earnings continued its business-cycle surge. The economy again proved that profit margins at extreme highs can go higher. Volatility remains unusually low in its cycle. The trend in earnings and volatility should be watched closely and investors should remain cognizant of the risks confronting an increasingly vulnerable market.

(First Quarter 2014)

Over the past quarter, the stock market gyrated a bit and ended about 1% higher than the prior quarter. The economy and normalized earnings increased close to the same percentage. As a result, normalized P/E was essentially unchanged at 25.6 and the status of market valuation remains *"overvalued."* Reported earnings, however, continued its business-cycle surge. The economy again proves that profit margins at extreme highs can go higher. The trend in earnings should be watched closely and investors should remain cognizant of the risks confronting an increasingly vulnerable market.

(Fourth Quarter 2013)

Over the past quarter, the stock market surged ahead, ending almost 10% higher—bringing the total gain for 2013 to 30%. Earnings from S&P 500 companies grow over the long-term at nearly the rate of economic growth. One result of the market surging last quarter and last year faster than normalized earnings growth is that P/E increased and now exceeds the range of "fairly-valued." As a result, even with low inflation rate conditions, the stock market is now "overvalued." P/E based on reported earnings is near 19; it remains distorted below the normalized P/E of 26 due to currently high profit margins. Even though "reported" P/E is lower than "normalized" P/E, reported P/E is relatively high. The trend in earnings should be watched closely and investors should remain cognizant of the risks confronting an increasingly vulnerable market.

(Third Quarter 2013)

Over the past quarter, the stock market gyrated softly, ending almost 5% higher. The average daily change for the S&P 500 was 0.45%; the average since 2000 is 0.89%. Earnings from S&P 500 companies grow over the long-term at nearly the rate of economic growth. One result of the market surging last quarter faster than normalized earnings growth is that P/E increased and remains well into the range of "fairly-valued." P/E based on reported earnings is near 18; it remains distorted below the normalized P/E of 23 due to currently high profit margins. Even though "reported" P/E is lower than "normalized" P/E, reported P/E is relatively high. The trend in earnings should be watched closely and investors should remain cognizant of the risks confronting an increasingly vulnerable market.

(Second Quarter 2013)

Over the past quarter, the stock market added a couple percentage points to an already good year. As a result, P/E remains well into the range of "fairly-valued." For historical perspective, the higher levels of P/E during 2007 (~25x) were near the upper limit of "fairly-valued." P/E based on reported earnings is near 18; it remains distorted below the normalized P/E of 23 due to currently high profit margins. Yet even though "reported" P/E is lower than "normalized" P/E, reported P/E itself is relatively high. The trend in earnings should be watched closely and investors should remain cognizant of the risks confronting an increasingly vulnerable market.

(First Quarter 2013)

The stock market surged 10% over the past quarter, moving P/E well into the range of "fairly-valued." For historical perspective, the higher levels of P/E during 2007 (~25x) were near the upper limit of "fairly-valued." P/E based on reported earnings is near 18; it remains distorted below the normalized P/E due to currently high profit margins. Yet even though "reported" P/E is lower than "normalized" P/E, reported P/E itself is relatively high. The trend in earnings should be watched closely and investors should remain cognizant of the risks confronting an increasingly vulnerable market.

(Fourth Quarter 2012)

The stock market was fairly flat over the past quarter, maintaining P/E in the range of "fairly-valued." For historical perspective, 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 an inflation rate trend away from price stability, the upper bound for fair-value would be much lower than historically warranted. 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.

(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.

(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 on 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).

(Year End 2008)

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).

(Mid Fourth Quarter 2008-II)

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).

(Mid Fourth Quarter 2008)

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).

(Late Third Quarter 2008)

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 on their future cash flows, which is largely based on 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 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 on detailed accounting principles (GAAP), ‘operating earnings’ is a measure of profits 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 8, 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 on Generally Accepted Accounting Principles (GAAP) and is the measure that historical averages are based on.

“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.* From the start of the reporting period in 1988, ‘Operating EPS’ has averaged 15% more than ‘As Reported EPS’. Since operating earnings is often viewed on a projected basis, the historical average price/earnings ratio (P/E) based on “Operating EPS” is closer to 11 or 12. This contrasts with the historical average P/E based on ‘As Reported EPS” of 15 or 16.

“Crestmont” earnings is based on 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 8 presents EPS from Standard and Poor’s for “As Reported” and “Operating” (actual through 2022, estimate for 2023, and forecast for year-end 2024) and from Crestmont through 2024.

Figure 8. Earnings Per Share: As Reported, Operating EPS, & Crestmont EPS