THE BIG SHIFT:
A SECULAR REALIGNMENT OF PROFITS AND P/E

By Ed Easterling
July 14, 2018
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Why are reported profits for the S&P 500 Index so much higher than normalized profits? Although implied earnings per share (EPS) under Shiller's CAPE P/E10 and Crestmont's normalized P/E are expected to be near $90 in 2019, the current forecast for as-reported GAAP EPS is $165.

Why are wages relatively stagnant overall (and declining as a percentage of the economy) while corporate profits increase as a percentage of GDP?

Why does the stock market appear so overvalued to many analysts when, in reality, it may be near fairly valued?

The answers to these questions may have a common explanation. Unlike most articles and graphs from Crestmont Research, this commentary lies somewhere between a thought-provoking discussion and compelling conjecture.

This discussion begs you, the reader, to approach its message with a skeptical eye. Yet, by the end, you too may seriously wonder whether the economy and financial markets are in the midst of *The Big Shift*, a secular realignment of profits and stock market P/E (i.e., price/earnings ratio).

In summary, (1) increased profit margins are the result of slower economic growth; (2) the related increase in EPS will be offset by a lower market P/E and thus will not provide stock market gains; and (3) future returns will remain muted despite an apparently lower level for P/E in the future.

CONCEPTS

For this analysis, we need three economic and financial concepts: trade-offs, present value (PV), and internal rate of return (IRR).[1] Trade-offs relate to the alternatives for any given decision. For example, would you prefer $20 today or $1 per year for 20 years? Also, would you prefer to purchase a stock or hold cash? There are ways to facilitate making these decisions, but the key point is to recognize that a trade-off exists in the decision-making process.
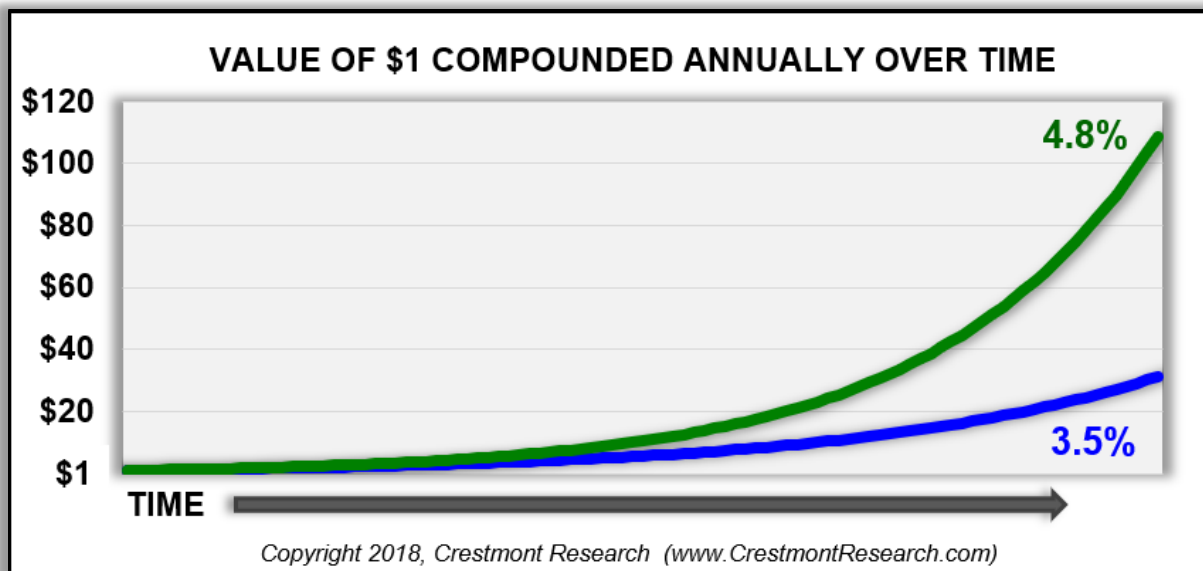
PV may be the most common financial tool used by investors. When deciding whether to invest in a stock, some investors research and analyze company data to estimate

future earnings growth and future stock price. Then, using an appropriate discount rate (i.e., an assumed rate of return for equities), investors calculate the present value of the company. If the market price of the stock is lower than the calculated present value, then the stock generally represents a good bargain. If the market price is higher, however, then to overpay may be foolhardy. Generally, the most significant assumption impacting value is the assumed rate of growth for earnings.

IRR is a tool similar to PV, but from a different angle. It does not require the investor to determine a discount rate. Instead, IRR provides the discount rate. To use this tool, an investor generally uses the current market price as the assumed current value. Then, using the assumed future cash flows, the IRR formula generates the expected rate of return implied by Mr. Market's current valuation of the stock. With IRR, the investor can decide whether the expected rate of return is sufficiently attractive to justify an investment in the target company. As with PV, the most significant assumption impacting IRR is the assumed rate of growth.

Figure 1 illustrates the power of the assumption for growth rate. The green line reflects the effect of $1 growing at the nominal annual rate of 4.8%. The assumption of 4.8% in this example reflects the historical average economic growth rate (real GDP at 3.3%) plus current inflation near 1.5%.

Figure 1. Effect of Growth Rate on Compounding

VALUE OF $1 COMPOUNDED ANNUALLY OVER TIME

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The blue line reflects today's environment. The growth rate of 3.5% is based upon expected future real economic growth (2%) plus inflation (1.5%). Real economic growth for the current expansion, lasting almost a decade, has averaged near 2% annually.

Figure 1 illustrates the significant effect that an apparently small difference in growth rate can make in future cash flows. It's clear why Albert Einstein quipped that compound interest is the most powerful force in the universe.

Businesses also use IRR to evaluate capital budgeting decisions about new start-ups, factories, equipment additions, and retail stores. With assumptions about construction cost, financing, and future profits, IRR helps to determine whether a project is expected to exceed a threshold return on investment.

Go or no-go decisions for start-up or expansion are based upon payback. When future revenues are not expected to exceed future expenses by enough to provide sufficient profit, businesses shelve or abandon projects. However, high-growth conditions encourage viable warehouses or stores, while slow growth shutters them. As illustrated in Figure 1, relatively small changes in growth can have a relatively large impact.

Our current infrastructure of businesses and their plants, equipment, stores, and inventories has been built in an economy with real growth averaging 3.3% annually for more than a century. Likewise, the current wage-rate structure across the economy has been developed in a 3.3% annual real growth environment.

Therefore, the current interconnected relationships within and among businesses are the result of an equilibrium process that has operated under 3.3% annual real growth.

But, for reasons proffered and yet unknown, economic growth downshifted over the previous decade and is not expected to recover. Real gross domestic product (GDP-R) averaged near 3.3% annually for more than a century, across expansion and recession cycles. For almost two decades, however, GDP-R has averaged near 2% annually. Most importantly, current long-term forecasts expect 2% growth to continue.[2]

THE BIG SHIFT

Capitalism is a system that relies upon a democratic economy (a.k.a. a free market). Individual decisions to buy, sell, and trade create a natural process that constantly seeks equilibrium among the elements of an economy. It is the force of the "invisible hand" in Adam Smith's *Wealth of Nations*. The "hand" works as a result of many constituents recognizing trade-offs that shape decision-making.

It is important for this discussion to recognize that commodity prices, corporate profits, wages, etc. are not set by a master but rather result from a market process. Even when product prices are set by managers, buyers have choices.

Overpriced products today become tomorrow's overstock. Pricing and profits are subjects of destiny's forces. As a result, there is less free will in a free market than most participants believe there to be.

The interconnected network of trade-offs throughout the economy drives an environment of relatively balanced equilibrium across business and economic cycles. However, as real economic growth significantly declined over the past two decades, it triggered a series of adjustments that represent the forces behind *The Big Shift.* Most importantly, the downshift in real economic growth disrupted the financial relationship of profits, future growth, and market value.

But first, it is important to recognize another trade-off that is impacting the current secular realignment. This dynamic affects businesses and people differently. Businesses have the trade-off option of operating or closure. When the prospect for profit diminishes, unless the business can be restructured, owners seek to protect and/or redirect capital. A business is ultimately expendable.

For the economy as a whole, people as workers don't have the trade-off of closure. They must work to survive. They must produce to consume. When confronted by the equilibrium forces of trade-offs, their preferred trade-off is lower wages over no wages.

The downshift of growth from 3.3% to 2.0% is significant. The forces that drive economic and financial equilibrium are now confronting that change.

Businesses still require a payback; lower growth does not reduce upfront or replacement costs. Businesses require profits to satisfy the trade-off that investors hold: without sufficient profit, investors will seek more desirable investments or preservation of capital. Businesses end up closing unprofitable units.

Alternatively, **to compensate for slower profit growth and lower cumulative profits, equilibrium forces in the economy could be driving profit margins upward.**

Given the relatively low profit margins in most businesses across the economy, this upward movement could be achieved by *receiving* small amounts of extra margin over many years. One source for profit gains is wages. However, workers don't have the same range of trade-offs as businesses do when confronting the forces of equilibrium.

The primary destinations of corporate revenues are labor and profit. Nearly all business materials, when traced back to their original sources, are the work products of labor (e.g., paper from trees, tools from raw metals, glass from sand). Since labor represents a substantially larger share of revenues than profit does, a modest decline or stagnation in wages can realign profits significantly upward.

But without their human assets, businesses are idle amalgamations of concrete, metal, and wood. Workers make businesses work. In the current environment, workers may be sacrificing some wage gains to ensure the viability of their employers. They are not doing it intentionally, but rather they do it through the internal forces of the economy.

You may be reading this article on a monitor or on paper. If you ponder just how much of the cost of the monitor or paper consists of labor, you'll find that each has a small element of raw materials and a large component of labor. For example, a sheet of paper is made from wood pulp. The wood pulp is harvested from trees. Every element along the chain involves labor that adds to each next step's material cost. A sheet of paper requires planting the tree, tending the stand, harvesting the tree, transporting the tree, pulping the wood, processing the fiber into paper, marketing the paper, and delivering it to your printer. Even though the paper mill purchases physical pulp for its product, the pulp has in it many layers of labor costs.

The key point is that the vast majority of end-product costs across the economy are labor costs. A minor change in a dominant component (i.e., labor cost) can have a

substantial effect on a small component (i.e., profits). Higher profits can quickly accumulate when modest revenue gains pair with relatively stagnant wages.

QUANTIFICATION

Given the expected downshift in future economic growth from 4.8% to 3.5%, what is the change to profits required to provide the same present value to cover business investments and generate the necessary internal rate of return?

Keep in mind that trade-off forces are unlikely to allow the required IRR to decline. For example, slower growth does not change the interest rate available from bond investments (assuming the same inflation rate under 4.8% and 3.5% growth scenarios), nor does it change the risk premium for equities above bond yields. Likewise, slower growth does not significantly change the cost to construct plants, purchase machinery, and maintain a fleet. Therefore, the future cash flows from business investments will need to adjust to provide the same PV.

If IRR and PV don't change, then the only way to restore equilibrium is for the profit stream to adjust. Given that the value of cash early in a period carries more weight than cash long into the future, equilibrium can be restored by increasing initial profits.

Under our two scenarios, there is a higher starting point for initial profits under the 3.5% growth scenario that has substantially the same present value as the 4.8% growth scenario. A business would just as easily justify start-up or expansion under either scenario, as they both have a similar PV. This is true even though the 4.8% scenario ultimately overtakes the higher-starting, lower-growth 3.5% scenario.

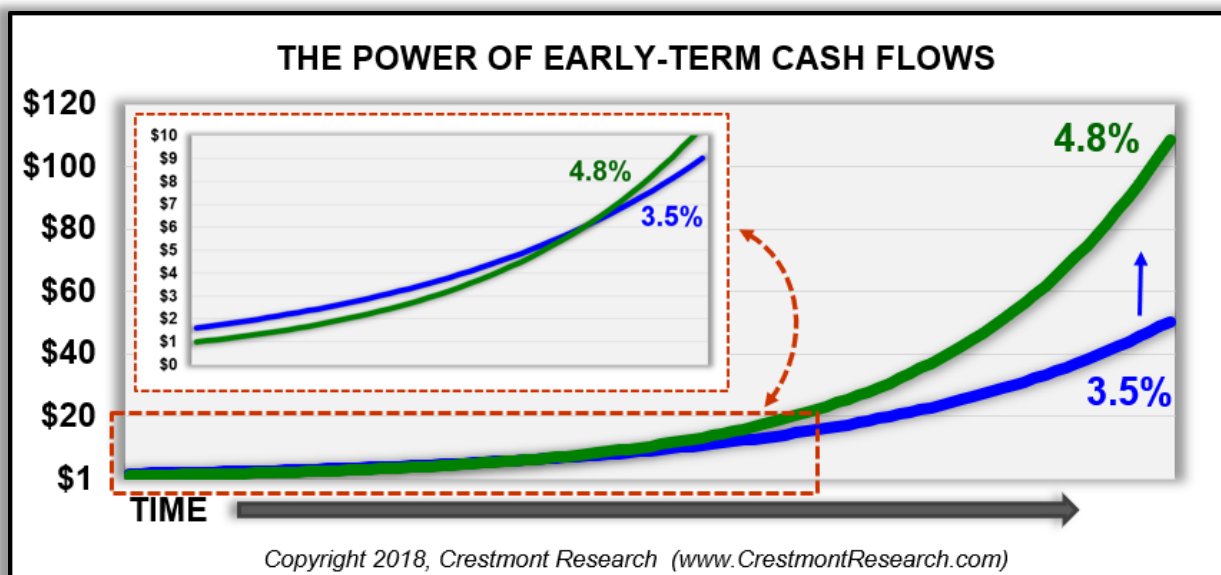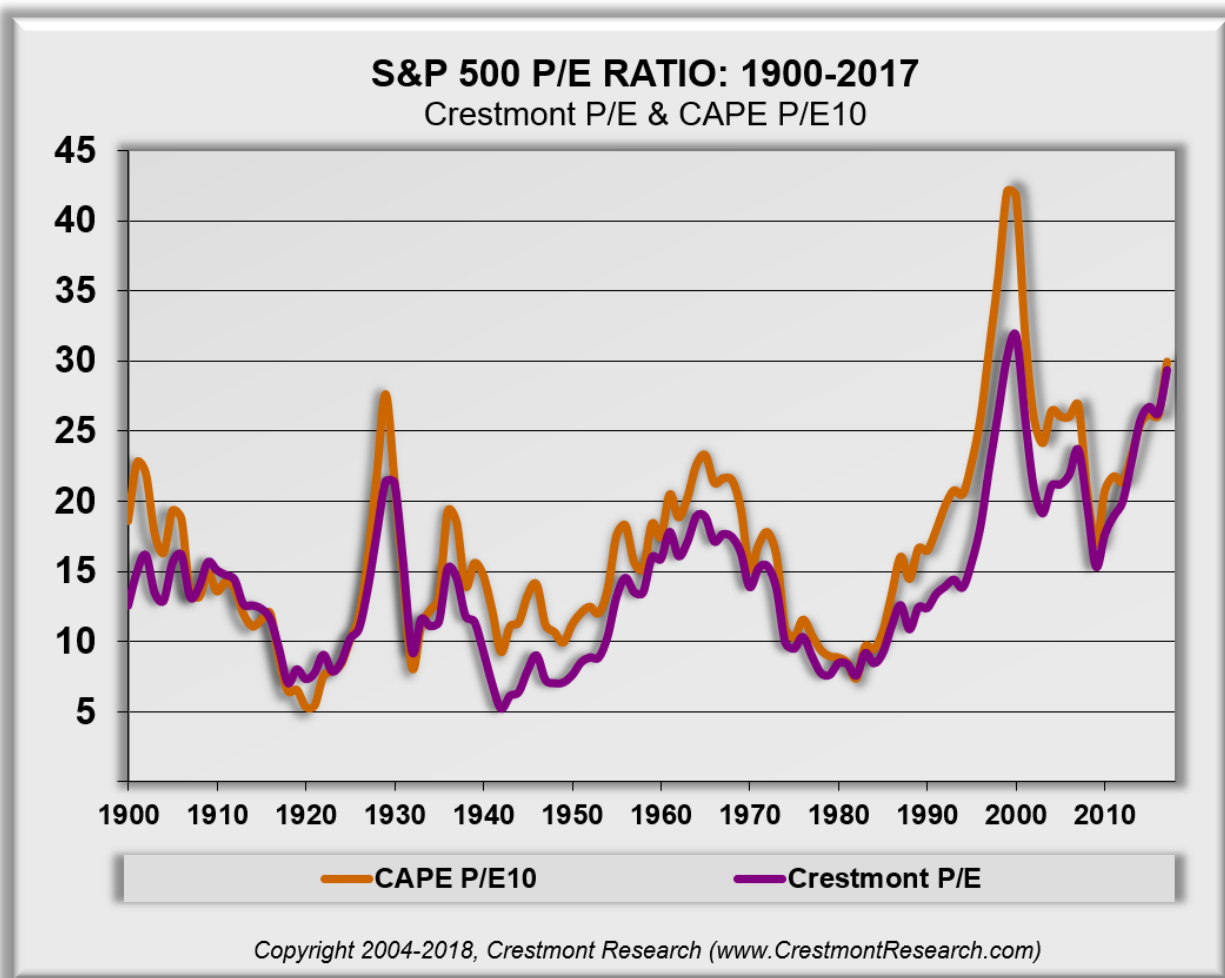**Figure 2. The Point of Equivalence**

Figure 2 graphically represents the increase required under the 3.5% growth environment for the initial year's profit to provide substantially the same PV and IRR as under the 4.8% growth environment. The increase is approximately 65% by adjusting

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the starting value from $1.00 to $1.65. This is the point of equivalence, where a higher profit margin growing more slowly is financially equivalent to a lower profit margin growing more quickly.

Recently, many stock market analysts have been surprised by the optimism of earnings forecasts. Additionally, numerous commentaries are challenging the credibility of Shiller's CAPE P/E10 and Crestmont's P/E. Implicitly, and often explicitly, the articles question whether underlying EPS measures derived through those methodologies are still valid.

P/E10 and Crestmont P/E use completely different methodologies, yet they produce similar results. The similarity of the two measures over a long history speaks to the reliability and usefulness of each measure. They reinforce each other through highly correlated results from completely different methodologies. Figure 3 presents P/E10 and Crestmont P/E since 1900.

Figure 3. Crestmont P/E and CAPE P/E10: 1900–2017

S&P 500 P/E RATIO: 1900-2017
Crestmont P/E & CAPE P/E10

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Both measures of normalized P/E currently signal overvalued conditions. Yet if the explanations for *The Big Shift* described in this article are correct, then both measures of P/E may be distorted upward.

This could be occurring because both measures of normalized P/E use historical EPS, including periods before *The Big Shift* when profit margins were lower. The result is that both measures have a value for EPS that is understated. The effect of having an understated EPS as the denominator for P/E is that P/E is distorted upward.

Yet we shouldn't get too excited or unduly bullish. There is more to consider for this perspective to be cohesive and internally consistent.

Figure 4 presents the underlying EPS for the two measures of P/E in the preceding figure and also includes as-reported (GAAP) EPS.

**Figure 4. EPS: As-Reported, CAPE P/E10, and Crestmont: 1900–2017**
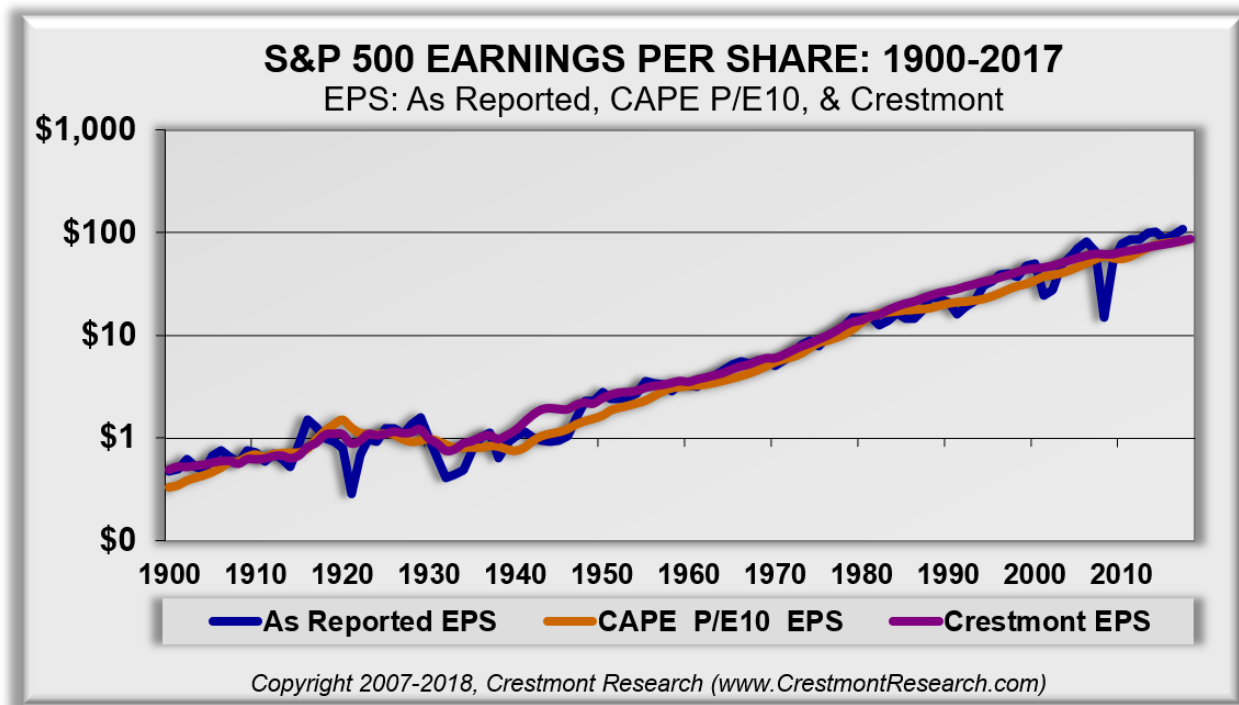
To provide more granularity to the recent and current periods, Figure 5 presents the same data for the period 1980 through 2017 and the forecast for the next two years.

Although it may appear that the breakaway for EPS occurred in the past year or two, that appearance may be the result of the EPS dip in 2015. Without that dip, the start would have followed the 2008 recession. And had the recession been less dramatic, the surge would have visually initiated in the early 2000s. The point of such conjecture is simply to dispel the assumption by observation of a *recent* divergence.

Regardless of when it started, EPS may be reaching its expected destination. Normalized EPS, whether CAPE P/E10 or Crestmont, is expected to be just over $90 per share in 2019. As-reported EPS is currently forecast to be $165. Although forecasted earnings are expected to exceed the 65% premium predicted by *The Big Shift* assertion, the variance is well within the range of historical fluctuations during earnings cycles.

Figure 5. EPS: As Reported, CAPE P/E10, and Crestmont: 1980–2019F

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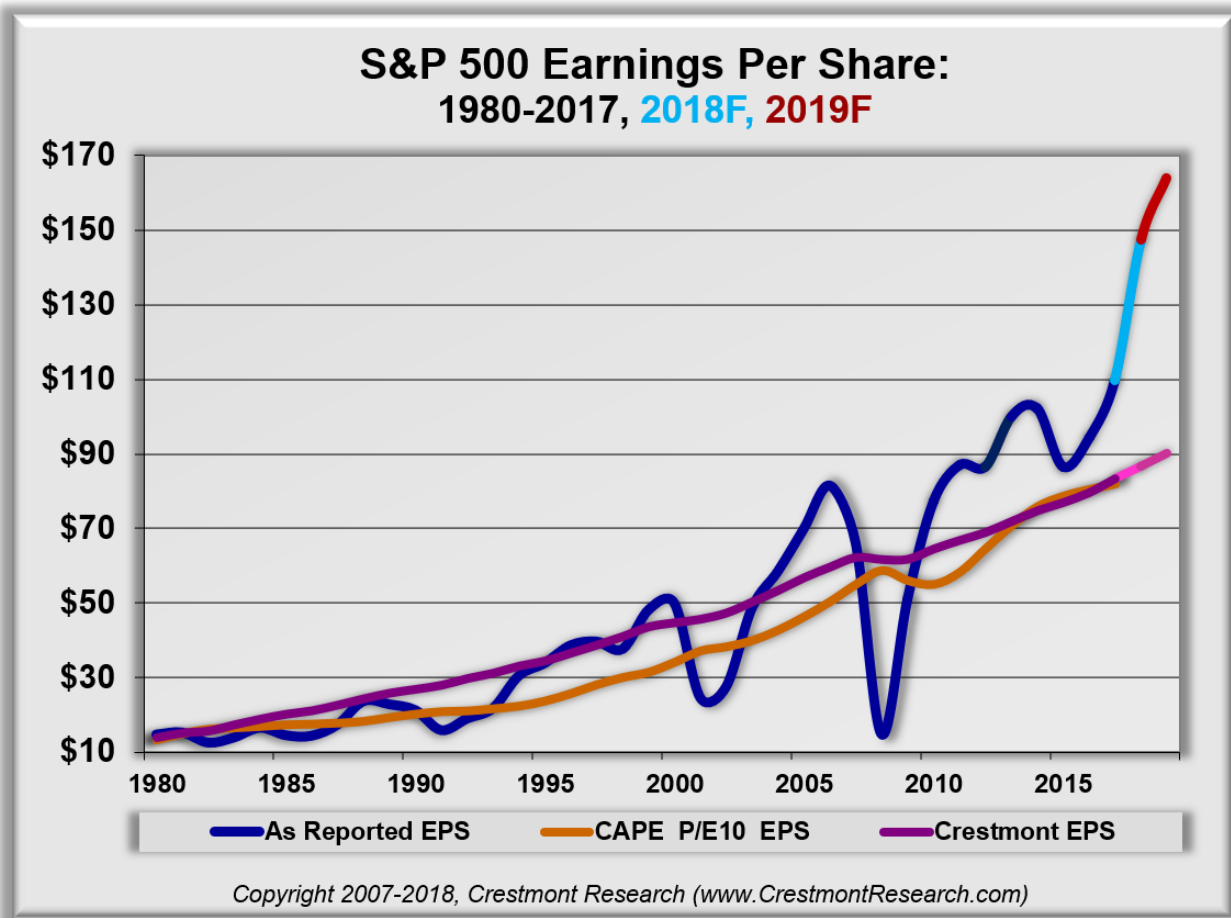
IMPLICATIONS – NEW PARADIGMS

Are you still feeling bullish… a bit hopeful? Have you started to multiply 2019 EPS of $165 by the historical 20–25 P/E that could be expected for low-inflation environments? Are you settling in to a range for the S&P 500 Index next year between 3,300 and 4,125? And the Dow between 29,000 and 37,000?

Not so fast. Slower growth drives P/E downward for similar reasons that it drives EPS upward.

I first discussed the downshift in P/E in chapter 7 of *Probable Outcomes* (2010) in the section titled Game Changer. Investors pay more for faster-growing stocks; thus, growth stocks have higher valuation multiples. Accelerated future growth generates more cumulative earnings to justify higher present values. Ergo, portfolios and indexes of high-growth stocks have higher aggregate P/Es than portfolios with tortoises.
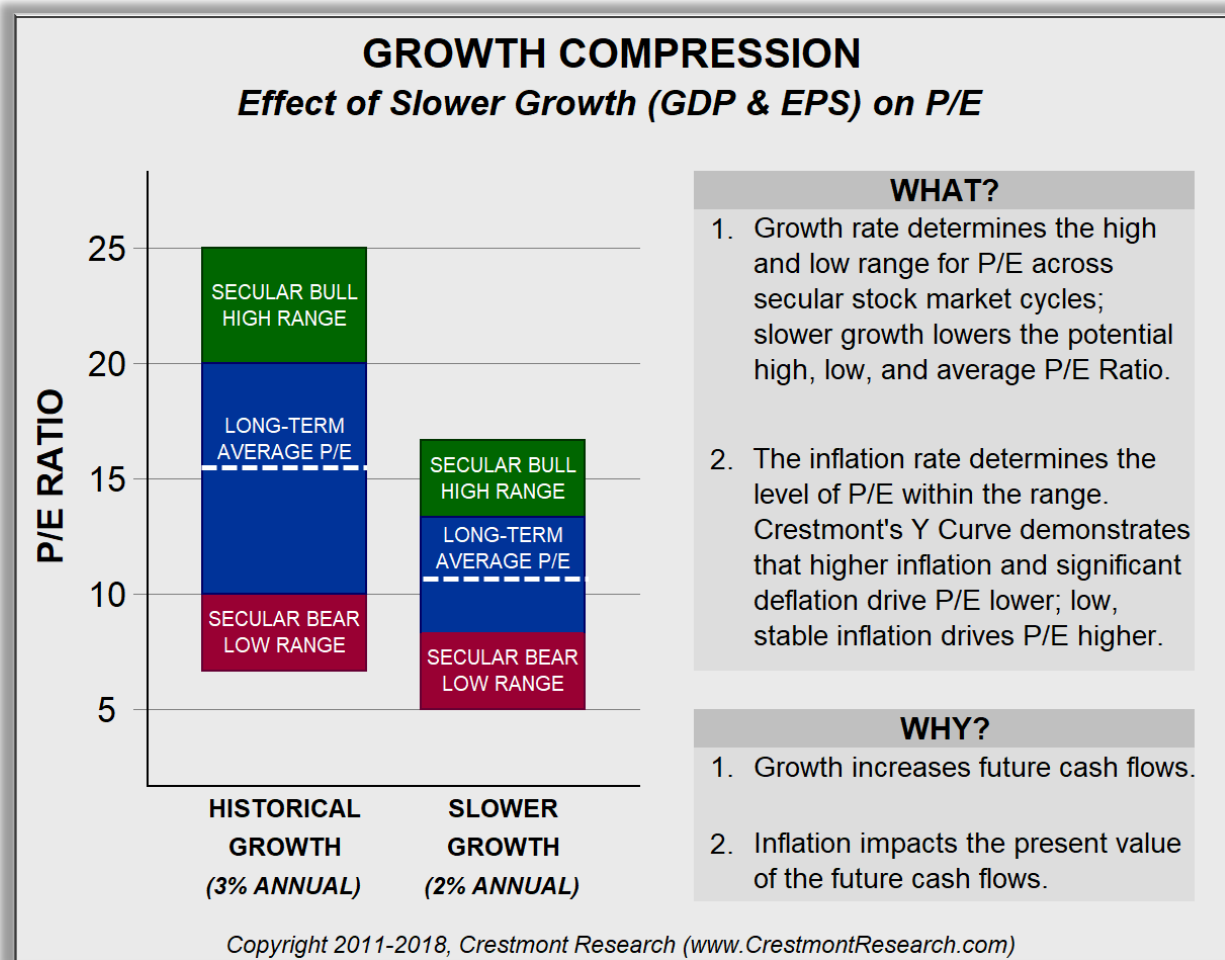
Therefore, since future economic growth is expected to be slower, it is only consistent that the future average for the market P/E will be lower. The new normal growth rate (i.e., slower) for the economy will drive slower overall earnings growth. Such slower growth will drive market P/E lower, just as previously higher growth supported the market's P/E at a higher level.

The inflation rate also drives the level of market P/E, but it occurs *within* the range driven by the growth-rate environment. Higher inflation drives P/E lower; deflation drives P/E lower. The level of P/E peaks when the inflation rate is low and stable. (For more discussion, "The Truth About P/Es.")

Thus, while the growth rate drives the *level of the P/E range*, the inflation rate drives the *relative position of P/E* within the range. (For more discussion, "Game Changer" or the excerpt in the appendix)

Figure 6, from the "Game Changer" article, illustrates these effects. The bar on the left illustrates the range for P/E under a historically average level of growth. The bar to its right illustrates the range for P/E under slower growth. Not only does the range downshift, the expected long-term average P/E also downshifts. This has major implications for analyzing the stock market.

Figure 6. Game Changer: Effect of Slower Growth on P/E

GROWTH COMPRESSION
Effect of Slower Growth (GDP & EPS) on P/E

WHAT?
1. Growth rate determines the high and low range for P/E across secular stock market cycles; slower growth lowers the potential high, low, and average P/E Ratio.

2. The inflation rate determines the level of P/E within the range. Crestmont's Y Curve demonstrates that higher inflation and significant deflation drive P/E lower; low, stable inflation drives P/E higher.

WHY?
1. Growth increases future cash flows.

2. Inflation impacts the present value of the future cash flows.

HISTORICAL GROWTH (3% ANNUAL)   SLOWER GROWTH (2% ANNUAL)

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The historical average for P/E has been in the range of 15 to 16, depending upon the period used for the long-term average. The high range for P/E, under low and stable inflation rate conditions, has been 20 to 25. The low range for P/E, under high inflation or material deflation conditions, has been 5 to 10.

Going forward, we should expect a new paradigm. Slower growth drives the ranges for P/E lower, which will affect future assessments of fair value. Keep in mind that, had real economic growth averaged 2% instead of 3.3% over the past century, the historical average for P/E would have been near 11—not 15 or 16.[3]

In the future, the fair value for P/E when the inflation rate is low will be 13 to 15. With average inflation, expect P/E to be near 11. During periods of high inflation and significant deflation, expect the low range for P/E to be 5 to 8.

This is not a draconian outlook. It is simply the quantification of concepts that nearly all investors use daily. As is commonly recognized, high-tech high growth stocks have higher P/Es; lower-growth household product companies have lower P/Es.
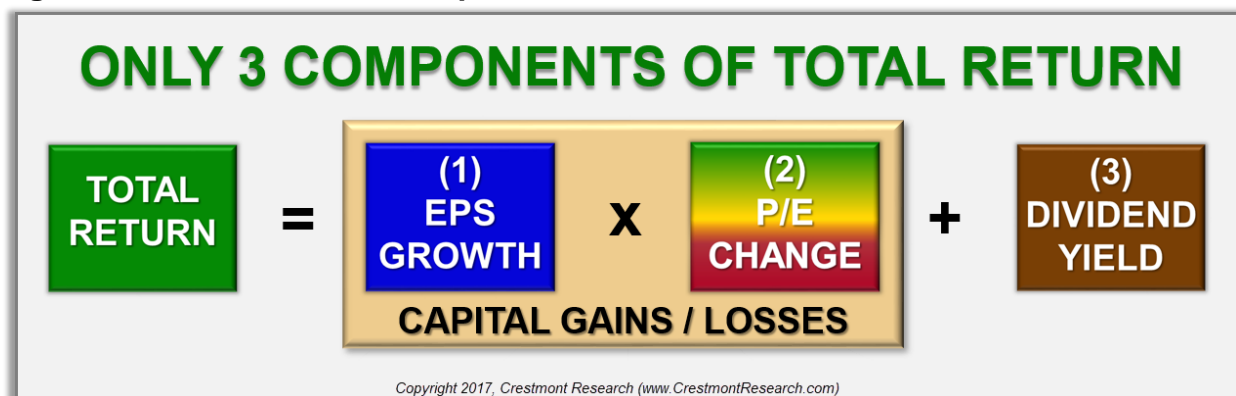
Now let's assess market valuation for 2019 under the lower-growth paradigm. Inflation-adjusted securities and many financial market analysts expect relatively low inflation to continue. As a result, the fair value range for P/E in such low growth environment is 13 to 15. Thereby, the fair-value range for the S&P 500 Index in 2019 is 2,150 to 2,500; Dow 19,000 to 22,000.

The cautious pundits are right: The market is currently somewhat overvalued (i.e., the S&P 500 is 2,800; Dow is 25,000). Yet it may not be as overvalued as some analysts fear. Nonetheless, the market is near the level that begs for a typical correction.

What does all of this mean for future returns?

Regardless of *The Big Shift*, stock market performance will still be driven by the Reconciliation Principle. Total return from the stock market consists of only three components: (1) growth in earnings per share (EPS), (2) changes in the level of the price/earnings ratio (P/E), and (3) dividend yield. As the graphic in Figure 7 shows, two of the components combine to create capital gains or losses from a stock market portfolio.

Figure 7. Reconciliation Principle

ONLY 3 COMPONENTS OF TOTAL RETURN

TOTAL RETURN = (1) EPS GROWTH X (2) P/E CHANGE + (3) DIVIDEND YIELD

CAPITAL GAINS / LOSSES

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Assuming the inflation rate remains low, total nominal returns from the stock market can be expected to average 4% to 6% annually. With relatively stable inflation, there should be minimal change to P/E over the long-term after a correction back to the fair value

range. Thereafter, stock market returns will consist of EPS growth (at near the rate of economic growth; ~3%) and dividend yield (~2%), as P/E should remain relatively stable toward the top of the range until the inflation rate changes significantly.[4]

CONCLUSION

Henry Hazlitt wrote in *Economics in One Lesson: The Shortest and Surest Way to Understand Basic Economics*:

> The bad economist sees only what immediately strikes the eye; the good economist also looks beyond. The bad economist sees only the direct consequences of a proposed course; the good economist looks also at the longer and indirect consequences. The bad economist sees only what the effect of a given policy has been or will be on one particular group; the good economist inquires also what the effect of the policy will be on all groups.

This article seeks to explain why corporate earnings may have elevated to a new and sustainably higher level. It seeks to explore implications beyond the natural downshift in P/E that results from slower growth. It tries to contemplate the interconnected effects of the new era ahead.

Slower economic growth is more than an inconvenience to employment and taxation. It affects people's lives through losses in wage growth and standards of living. Slower growth also has dramatic effects on financial markets. This article seeks to vet the likely consequences before statistics have time to reflect them.

The effects are numerous. An initial list of key implications is included in the appendix.[5]

The Big Shift may appear to be another "this time is different" scenario. It is. But it is not any more different than the change from a century-long era averaging over 3% real economic growth to an indefinitely long era that is expected to average near 2% real GDP. *The Big Shift* is simply the name given to the financial effects of such a change in the economy.

Investors who recognize the changes can avoid the distraction of seemingly unexplained divergences and distorted valuations. Those investors will be prepared to make better investment decisions and avoid costly mistakes.

The road ahead requires the application of lessons from the past to the circumstances of the future. Wisdom must transform to vision. *The Big Shift* presents a financial and economic frontier for analysts and investors to capitalize upon for big gains. It may be the gold rush of the 21st century.

Ed Easterling is the author of *Unexpected Returns: Understanding Secular Stock Market Cycles*, *Probable Outcomes: Secular Stock Market Insights*, and chapters in numerous books. He is the founder and president of Crestmont Research and previously served as an adjunct professor, teaching a course on alternative investments and financial markets for graduate students at SMU in Dallas, Texas. Mr. Easterling publishes provocative research and graphical analyses on the financial markets at CrestmontResearch.com.

The Big Shift:
A Secular Realignment of Profits and P/E
APPENDIX

FOOTNOTES:

1 Present value (PV) and internal rate of return (IRR) are two sides of the same coin. Both formulas include (a) cash invested, (b) cash return, (c) time, and (d) a percentage rate.

PV uses the last three variables to determine the current value of a stock.

IRR uses the first three variables to determine the annualized compounded rate of return from an investment in a stock (or the expected rate of return when future cash flow is an assumption or expectation).

2 A portion of the expected reduction in real economic growth relates to demographic changes that have slowed the growth of the labor force. Factors that could offset some of the expected decline include increases in productive immigration, an increase in labor force participation, and delayed retirement due to shortfalls in expected savings and retirement benefits. The opposite direction for those three factors and other factors could lead to even slower labor-force growth.

Another portion of the expected reduction in real economic growth relates to shortfalls in productivity growth compared to historical levels. Some of the decline in productivity growth likely relates to an ongoing significant increase in federal deficits and debt.

Government spending and debt redirects capital from the private sector. Increased wealth and saving normally available to support economic growth gets diverted to government deficits. That process has the effect of converting national wealth typically invested in economic production into consumption. Federal debt was less than $6 trillion in 2000; it now exceeds $21 trillion. As a result, $15 trillion that could have been circulating in the private sector for investments in productivity-related assets was converted to consumption through government deficits; it now exits only in future promises for repayment (i.e., Treasury securities). The Congressional Budget Office and others expect federal debt to increase by another $15 trillion by 2030.


3 *Excerpt from [Game Changer](#):* To illustrate, assuming that a change in the growth rate does not change the inflation rate, the yields on government bonds can be expected to remain the same. Absent a change in credit quality from slower growth, the risk premium within corporate bond yields would not change. Likewise, the expected return from stock market investments can be expected to remain unchanged due to the growth rate.

When slower growth reduces the contribution of earnings growth to total return, another source of return is therefore needed to fill the shortfall. Stock market investors will not

be willing to take equity risk without appropriate equity returns. If bond yields do not change, they will not compromise stock market returns. In this situation, stock market investors will step away until the price of the market declines to again provide appropriate returns. This is the function of markets—finding the price that provides a fair return.

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

Figure 3. Impact of Growth Rate and Inflation Rate on P/E
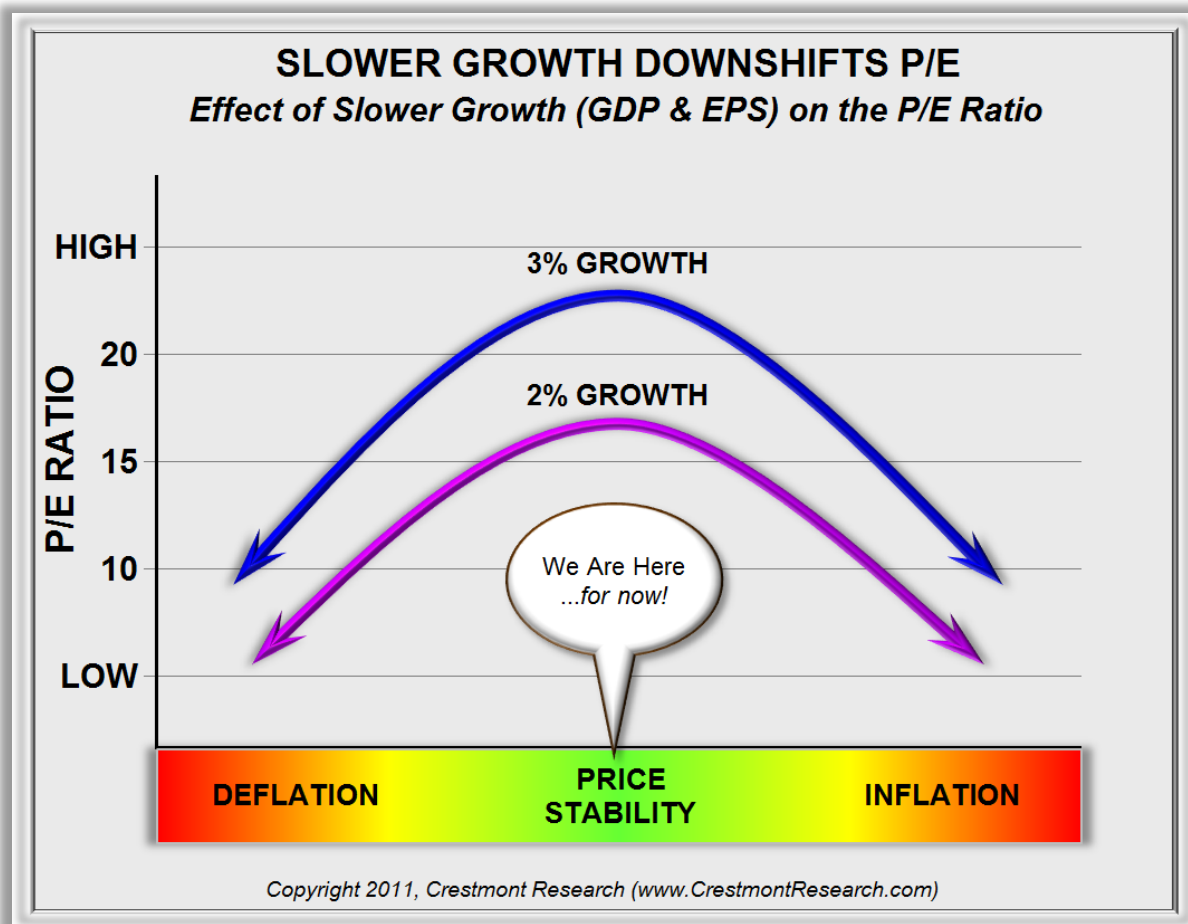
Of the three components of stock market returns, two are available as sources of return, and the third one represents the way in which returns occur. The first source of return, EPS growth, is defined in this example as either providing 3% or 2% toward to the total return. As a result, the second source of return, dividend yield, will need to increase to

compensate for lower earnings growth in the second scenario. Herein is the role of the third source of stock market returns: changes in P/E.

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

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

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

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

[4] Earnings growth of large public companies over the long term tends to grow slightly slower than overall economic growth, which includes faster growing smaller companies and startups. Dividend yield is directly and mathematically affected by the level of P/E at the time of investment. When P/E is near the high end of its range, dividend yield is lower because the price (i.e., the denominator) is higher. The increase in EPS margins resulting from slower economy growth is expected to be retained to support corporate investments; thus, the dollar level of dividends is expected to remain the same. Thereby, the dividend yield at each level of downshifted P/E will adjust similarly.

Economic growth is expected to grow at a 2% real rate plus inflation near 1.5%, thus 3.5%. As a result, EPS growth for the S&P 500 Index is expected to be between 3.0% and 3.5%. Dividend yield is expected to remain near 2% for the relatively high P/E associated with a low inflation rate environment.

[5] The key implications for the stock market that result from slower economic growth, slower earnings growth, higher profit margins, and lower market P/E include:

1. Earnings growth will be slower in the future, commensurate with slower GDP growth, while likely maintaining the relatively high degree of variability that is consistent with business cycles.

2. For businesses in the economy to support the aggregate level of corporate infrastructure, including physical assets and workers, the overall level of profitability will rise (or already has risen) to a higher average level.

3. The profit increase will be sufficient to maintain the present value of the corporate infrastructure (which is in the neighborhood of 65%).

4. The additional profit margin is being driven to support corporate investment payback due to slower growth rates. The dollar level of dividends is not expected to change, thus dividend yield will remain similar to its historical relationship with the relative level of P/E (i.e., relatively high market P/E will drive dividend yield near 2%; average P/E will drive P/E yield near 3%; and low P/E will drive dividend yield above 4%). The implication of a similar dollar payout for dividends and higher profit margins from slower economic growth is that the dividend payout ratio will downshift below 30%.

5. Valuation measures of the stock market will diverge:

   a. P/E will be lower to reflect slower growth (and also to reflect the commensurate higher earnings level).

   b. The price/sales ratio will remain comparable to its historical average, as the adjustments to future cash flows are included within the income statement before the bottom line. Likewise, the price/book ratio will remain consistent with history.

   c. CAPE P/E10 will initially reflect an unusually overvalued market but will adjust over a ten-year period as the averaging function of the methodology incorporates additional years with the higher profit margin (i.e., earnings). If waiting ten years for the full effect risks the value and credibility of this measure, some adjustment methodology may be required.

   d. Crestmont P/E will initially reflect an unusually overvalued market and would take fifty years to reflect the new, higher profit level. As a result, some adjustment methodology will be required.

   e. The historical level of P/E for the range of inflation-rate conditions will downshift. The future average P/E will be near 11. The historical average of 15–16 reflects a higher-growth environment. Low-inflation environments will see the fair-value range for P/E decline to 13–15. High-inflation and deflation environments will see P/E's fair-value range near 5–8.

6. The relationship of future return to given levels of P/E will change. By definition, periods starting with an average P/E near 15 have delivered average returns. Going forward, periods starting with P/E near 15 will not deliver historically average returns, but rather such periods will deliver much lower returns since 15 will be the high end of the range for P/E.

7. Many future analyses, Monte Carlo simulations, charts, etc. will require notations to differentiate periods before *The Big Shift* from periods afterwards. Many measures will not be on comparable scales.