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## Where Did It Come From: Is the Trend Your Friend?

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Since March of 2009, the stock market's annualized return has averaged more than $17 \%$. Does this portend another strong decade ahead? Hopeful analysts and investors are clinging closely to the old adage "the trend is your friend."

Yet, is $17 \%$ a reasonable expectation? What were the sources for that level of return and will those drivers continue to deliver?

## HEADWATERS

There are three sources of return from the stock market: growth in earnings per share (EPS), changes on the level of the price/earnings ratio (P/E), and dividend yield. As this graphic shows, two of the components combine to create the capital gains or losses experienced from a stock market portfolio.

## ONLY 3 COMPONENTS OF TOTAL RETURN



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P/E Change is shaded from green to red. This signifies that P/E has a positive effect when it rises and a negative effect when it declines. For example, if P/E increases, the amount of capital gains benefits from an increase in the level of valuation regardless of earnings growth. If P/E remains constant, however, then stock prices rise only by the amount of earnings growth. A decline in P/E can at times more than offset even solid earnings growth.

Secular bull markets combine long-term gains in both earnings and P/E. Secular bear markets are the result of offsets between the two. Generally, earnings grow, but the benefit of such growth is offset by declining P/E.

Regardless of capital gains or losses, the yield from dividends is an addition that completes total return.

Dividend yield is the cherry on top of the sundae. It tends to be relatively predictable based upon the level of P/E. As P/E rises, the yield of a given dividend payment declines. Higher prices cause lower dividend yields... and vice versa.

This occurs for mathematical reasons. P/E and dividend yield are closely related.
$P / E$ is price ( $P$ ) divided by earnings ( $E$ ). The inverse of P/E (i.e., $E / P$ ) is known as the earnings yield. Dividend yield is dividend (D) divided by price (i.e., D/P).

E/P and D/P have the same denominator in their respective equation—price.
Therefore, the relationship of P/E and dividend yield is simply the relationship between earnings and dividends. Since dividends are paid from, and based upon, earnings, the two variables have a direct relationship (and thus the chart in Figure 1 shows a highlycorrelated relationship).

Figure 1. Dividend Yield Driven by the Level of P/E


For the past eight years, dividend yield represents about 2 of the 17 percentage points of annualized return (i.e., $2 \%$ within the $17 \%$ total annualized return).

Earnings growth is a bit more complicated. The earnings cycle fluctuates dramatically, often exacerbated by recessions and other major economic events. For example, from the second quarter of 2007 to the first quarter of 2009 (less than two years), EPS plunged by 92\%. Reported GAAP earnings for S\&P500 companies fell from \$84.92 to \$6.86.

Then equally dramatic, EPS surged and exceeded its previous peak two years later with an increase of $1167 \%$.

Shorter-term surges and falls are poor measures of the contribution of long-term EPS growth to stock market gains. That's why Benjamin Graham wrote about a seven-year average to normalize EPS and why Robert Shiller uses a ten-year rolling average to normalize EPS in his popularized CAPE P/E10.

Both Graham and Shiller are seeking to normalize the substantial fluctuations in EPS across business cycles. The driver of EPS growth is economic growth (GDP); this occurs for well-accepted financial reasons. When viewed together in Figure 2, EPS swings wildly around GDP, yet they have highly-correlated trendlines. Thus, long-term GDP growth can be used as a good proxy for the baseline growth of EPS.

Figure 2. EPS Driven by Nominal GDP


Baseline growth is the concept of long-term trendline growth for EPS. The business cycle drives fluctuations in EPS quarterly and annually, yet as profit margins extend beyond their fundamental relationship with GDP, periods of reversion drive the short-term earnings reports back toward the long-term trend. Graham observed this as a seven-year cycle; Shiller prefers ten years. Regardless, as reflected in Figure 2, the 2009 dip was a natural offset to the 2007 peak, which responded to the 2001 dip, which... As with any chicken and egg situation, it doesn't really matter if the dip or peak occurred first. As time extends
on, the effect of individual above- and below-trend cycles on the long-term average is insignificant.

Most notably, however, is the current status of profit margins and the EPS cycle. Margins have remained elevated for much longer than necessary to offset the 2009 decline...or it's setting-up for a significant dip as the next leg of the cycle. Investors and analysts should watch closely future forecasts and trends in EPS. At some point, either a decline in EPS will occur or EPS growth will experience an extended stall to enable the underlying economy to catch-up. Some analysts believe that this time is different-that the economy and profit margins have moved to a new normal level. The cited reasons include international revenues, global trade, shifts in industry composition toward low capital technology and services, etc. Interestingly, many of the same reasons were offered in 2006...

Since March of 2009, annualized nominal GDP growth has averaged just under 4\%. As a result, using GDP growth as a proxy, annual normalized EPS growth has averaged just under 4\%.

Thus, over the past eight years, EPS growth represents about 4 of the 17 percentage points of annualized return. Including dividends, two of the three components represent nearly 6 of the 17 percentage points.

## THE LAST TRIBUTARY

With 6 of 17 points flowing in from dividend yield and EPS growth, normalized P/Ethrough an increase in the general valuation level of the market-has boosted returns by approximately 11 percentage points annually!

As shown in Figure 3, P/E catapulted from the green zone to the red zone. P/E is now fairly high, yet it could go higher. Anything is possible. That would enable future gains to average more than $6 \%$ annually. However, such hope may push possible beyond plausible.

The shading in Figure 3 reflects the relative level of under- and over-valuation. Fair value is actually a range; it's a generalized range that reflects a typical amount of sloshing in the market such that a point or two variation in P/E is relatively insignificant. The key point is that fair value is not a hard line or specific cutoff.

The fair value range changes based upon the level of the inflation rate. P/E is driven higher and lower based upon trends and changes in the inflation rate. For both bonds and stocks, which are financial assets with future cash flows, the inflation rate acts as a discount rate to set their respective prices in present value terms.

For example, when the inflation rate and interest rates rise, investors require a higher rate of return to compensate for the higher inflation rate. As a result, bond prices fall to enable the bond's fixed interest payment to provide a higher yield. Similarly, stock prices decline (thereby P/E declines) to enable future dividends and earnings to provide a higher total return.

Figure 3. The P/E Zone


For a more detailed discussion about the relationship between P/E and the inflation rate, see The Truth About P/Es on the CrestmontResearch.com website (search for "Truth" from the home page) and/or watch Video 3 from the Unexpected Returns course.

Returning to Figure 3, the colors reflect a fair value range for P/E based upon the currently low inflation rate. With low inflation, the fair value for P/E is near the low 20s. In the chart, green starts in the teens and extends downward. Green represents a relatively undervalued P/E—undervalued relative to the fair value range. Red near and over 25 represents a relatively overvalued P/E. With P/E currently over 30 , there are few rational justifications in the current economic and financial environment that justify such an elevated valuation level.

This does not necessarily mean that a market decline is imminent. P/E could stall. If so, then investors should be prepared for stocks to deliver returns averaging near 6\% annually. If P/E declines to lower levels, portfolios should be prepared with diversification and hedged strategies. P/E decline could occur from rising inflation or deflation or from a
"Hope may be pushing possible beyond plausible."

## CURRENT IMPLICATIONS

Since the valuation level at the start of the period drives future returns, today's relatively high valuation level means that we should expect below-average returns for the next decade and longer. This does not mean that all years will be below-average-quite to the contrary. The stock market presents significant variability across the individual years. As for the appropriate investment strategy: emphasize the more active and diversified "rowing" strategies over the more passive "sailing" strategies within investment portfolios.

Ed Easterling is the author of Probable Outcomes: Secular Stock Market Insights and the award-winning Unexpected Returns: Understanding Secular Stock Market Cycles. He is currently president of Crestmont Research, an investment management and research firm. In addition, he previously served as an adjunct professor and taught the course on alternative investments and hedge funds for MBA students at SMU in Dallas, Texas. Mr. Easterling publishes provocative research and graphical analyses on the financial markets at CrestmontResearch.com.

