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Price, Value and Persistence

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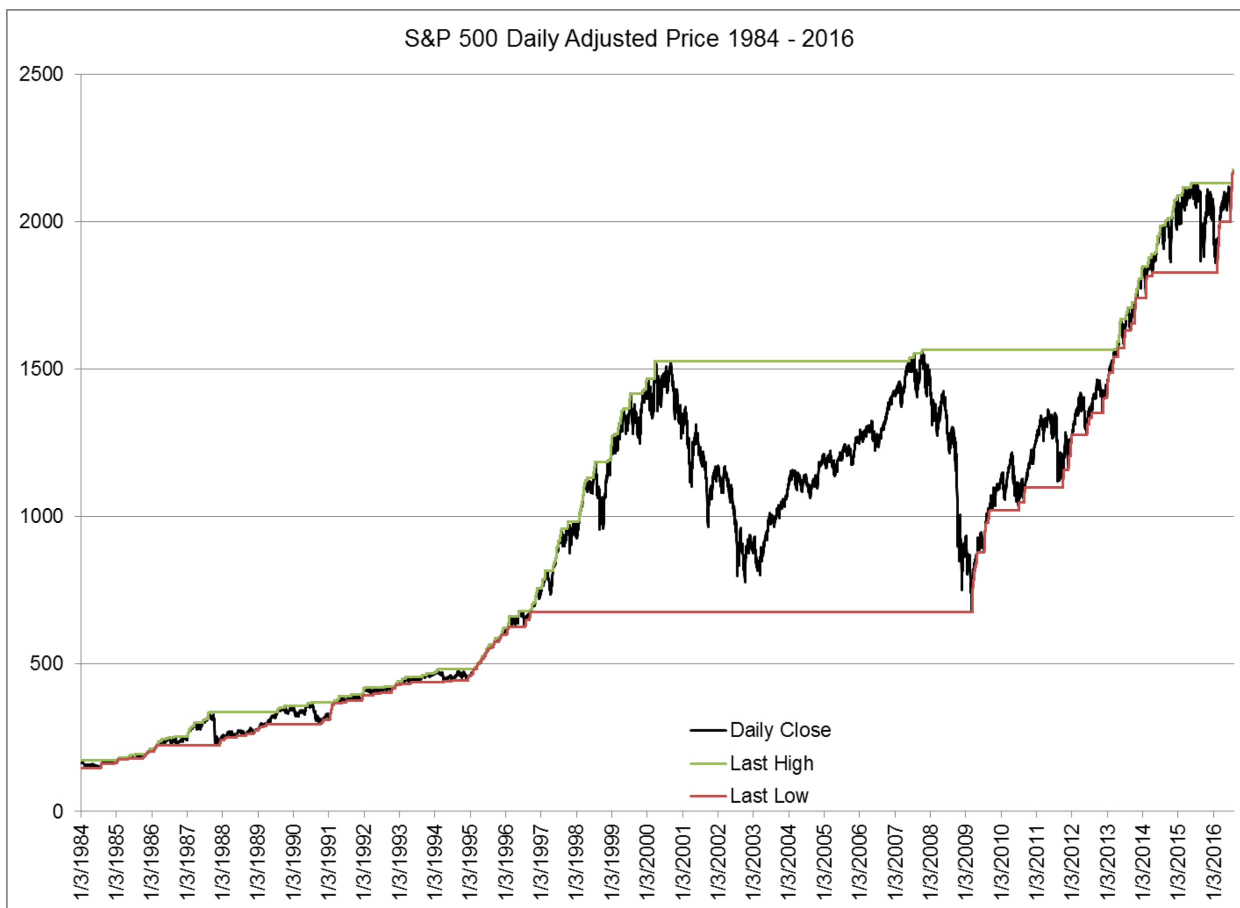
It has been over seven years since the S&P 500 bottomed out of the Great Recession trading at 677 on March 9, 2009, a price last seen in May of 1996.

Since then it's been pretty much nothing but gains. The index bested its previous pre-recession high of 1,565 from October 9, 2007 by the end of March 2013, and the S&P 500 reached a new high of 2,175 on July 22 of this year – a cumulative price gain of about 220% from the low.

The reaction of investors to every new market high has been a predictable one – it must be time for a market correction. It's a kind of fear of heights – we have soared so high that we must fall back to earth. After all, we all know about reversion to the mean, what goes up must come down, etc.

The error of expecting price to be an indicator of whether or not the market is overvalued and due for a correction is obvious. After all, the S&P has had 115 new daily market highs since the end of March 2013. Certainly, the market has lost ground on many days too, but the overall trend has been ever upward and there is no particular evidence to suggest that the 116th daily high is going to be the one that finally triggers a correction.



A better metric should be the value we are getting for the price. We certainly should not mind paying a substantial price if we are getting significant value. In the market, what we are paying for is future earnings, and the standard measurement of market value is the price in relation to those earnings, or the Price/Earnings Ratio (P/E)[1], which does give us an accurate point in time measurement of the cost of the market relative to its earnings, or the real value in the market.

So is the market cheap or expensive? The average monthly P/E ratio of the S&P 500 since 1900 is about 16. As of the end of June 2015 it was 24, which ranks in the top 10% of monthly P/E ratios since 1900. So the market is definitely pricier than average, but how does this compare with other market moments?

Under plausible assumptions, the reciprocal of the P/E ratio provides an estimate of the expected real return after inflation. In this case, the reciprocal of 24 to 1 is 1/24 or 4.2%. Adding 2.5% for inflation, it would indicate a nominal return of about 6.7%, a return that is significantly lower than historic average returns. In fact, an argument in favor of the market being able to sustain a higher P/E ratio is that expectations for yields are low and that a low expected return supports a high P/E.

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[1] Since we cannot know future earnings, a frequently used P/E measure is current price divided by the previous 12 month's earnings. The monthly P/E's used here are from Robert Schiller's data.

If we select other periods where the monthly P/E was 24 plus or minus 1, we get a very wide range of returns for the next twelve months, from 28.6% to -43.3%, as follows. Despite this wide dispersion of returns, the average nominal return of these periods is 6.7%, just what our estimate would indicate. In fact, a recent Vanguard study showed that P/E ratios provide a useful metric for estimating longer term trends but a not very reliable indicator of what will happen in the short run.

	P/E	1-Yr Ahead Return		P/E	1-Yr Ahead Return
Jan-98	25.9	28.6	Feb-92	25.2	10.6
Dec-97	24.3	23.7	Nov-91	24.3	10.0
Nov-97	24.2	22.0	May-92	24.0	9.3
Aug-97	23.1	19.3	Oct-97	23.5	9.1
Dec-91	25.9	18.5	Aug-92	23.2	8.7
Apr-92	24.8	15.3	Sep-97	23.6	8.1
Oct-03	23.2	13.9	Jan-92	25.6	7.7
Jul-92	23.6	13.6	May-93	23.2	5.3
Jun-92	23.9	11.6	Jun-08	25.4	-32.6
Sep-03	24.8	11.4	Apr-08	25.8	-38.1
Oct-91	23.3	11.1	Mar-08	23.9	-43.3
Mar-92	24.7	10.7	Average		6.7

So if price and value cannot tell us when to expect a correction, what can? The same Vanguard study noted above examines other popular metrics and finds that none do a good job of predicting future market returns. In fact, they find that annual rainfall – which clearly cannot have much impact on the market - does a better job of statistically predicting future market returns than does 10-year returns, trend GPD growth, 10-year Treasury yield, corporate profit margins, trailing one-year returns, consensus earnings growth forecasts or consensus GDP growth forecasts.

Even bad economic or political news does not necessarily presage bad market returns. Companies can earn a good rate of return at the right price even in bad times and there are always winners and losers in every market. Even headline events like the crash in oil prices last year effected different segments of the market differently: producers were hurt, but consumers benefited. Less than catastrophic bad news can be very good for business: umbrella salesmen always hope for rain.

In fact, a 2013 study published by the CFA Institute found that even wars may not be bad for US domestic stocks. Looking at the major wars of the twentieth century, the study showed that both large-cap and small-cap stocks outperformed the 1926 – 2013 average index returns with less volatility during war times. The Vietnam War was the one exception, where stock returns were worse than the full period average. Even then, though, the returns were positive and above those of bonds and cash.

The S&P 500 chart above makes clear that the market is highly variable and can be very volatile. Although the historic trend has been approximately a 10% nominal return, at any given moment the market can zoom up as it has over the last seven years or fall dramatically as it did during the tech bubble and the credit crisis. Since neither price nor value nor other market metrics or current events are reliable predictors of future returns, investors are left with no reasonable course of action but to invest for the long-term to capture the long-term return.

Trying to be there for the highs and to avoid the lows simply cannot work absent a clairvoyant advisor who can tell you the future, and as readers of PMA letters know, we firmly believe that no one – including us – knows the future. As the research and evidence suggests, there are no reliable indicators and therefore no reliable signals that it is time to get out of or into the market. Behavioral research also suggests that investors who try to time the market practically always get it wrong, piling into markets at their peak and fleeing once they have already experienced their lows.

All that we can do to maximize our investment success is to pick an allocation with an historic volatility that matches our temperament and circumstances and stick to it through full market cycles, knowing that ultimately the historic market return will reward our patience and persistence. When our personal circumstances change we should always revisit our allocation, but changing our allocation in reaction to our perception of what will happen in the market does not make sense.

Turning off the television and taking a deep breath might be the very best thing that any of us can do.