DIAMOND HILL® investments

STOCK MARKET OUTLOOK – FORECASTING THE NEXT DECADE

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"It is dangerous to apply to the future inductive arguments based on past experience, unless one can distinguish the broad reasons why past experience was what it was." — *John Maynard Keynes*

Applying Keynes statement to the S&P 500, the strong returns of the past are likely to be replicated in the future only if similar conditions—most importantly the starting valuation—exist. This is a key contingency. To understand why the past unfolded as it did, historic stock returns must be related to two economic building blocks, earnings (and the dividends paid from earnings) and interest rates.

Before analyzing the current outlook for the S&P 500 (which comprises more than 80% of the total U.S. market capitalization), a few comments might lend context. First, our forecast hasn't changed much over the past three and a half years. At Diamond Hill's inception in May of 2000, we felt investors should expect no more than a 5% annualized return for the decade 2000-2009. We thought it could easily be lower, and after a negative 5.3% annualized return during the first four years, the S&P 500 must return 12.5% per annum in the years 2004-2009 in order for the decade's annualized return to reach 5%. Yet, our primary message then was that while market capitalization weighted indices were decidedly unattractive, plenty of investment opportunities existed outside technology and very large capitalization companies. As the S&P 500 index decreased, perhaps surprisingly, our updated forecasted return only improved marginally. This either lends credence to our statement that we believed it could easily be lower or simply an acknowledgment that we were too optimistic (read wrong), even at 5%.

Because we are active managers, we don't necessarily care what the S&P 500 does, so long as we like what we own and have some concept of what constitutes a satisfactory return given a suitable time horizon. In other words, an outlook for the S&P 500 only tangentially affects what we *do*. This mindset has served us well in the past, and we believe it will in the future. Today, we still believe the market cap weighted indices are unattractive. While it is more difficult to find attractive opportunities, this remains our charge. While we hope we can achieve real returns that exceed historic market averages over the coming decade, our foremost concern is maintaining the margin of safety in your portfolio.

One final note of clarification: annualized returns here refer to compound average (geometric) rather than an arithmetic average. To illustrate the difference, consider the simple example of a manager who returns positive 100% in the first year and negative 50% in the second. The geometric average is 0% (If you start with $100, it doubles to $200 in the first year, then declines to $100 in the second year, leaving you exactly where you started). The arithmetic average is 25% (100% + -50% / 2 = 25%). As long as returns are volatile, the arithmetic average will always exceed the geometric average. If someone guessing the return for any single year wanted the prediction to reflect the "average", then the arithmetic average is relevant. We hope you agree that for long-term investors, as far as enhancing wealth is concerned, the compound return should be the focal point.

The Macro Analysis

The total return of the S&P 500 can be expressed as the sum of the dividend yield and growth, R = Dividend / Price + Growth. Long-term studies that have decomposed the sources of return in U.S. stocks have found that of the historic 6.5 - 7 % annual ***real*** (inflation-adjusted) returns, dividends have provided 4.2%, expansion of the price-to-earnings (P/E) ratio 1.2%, and real earnings growth 1.5% (varying some depending on the study and time period).

Dividend Yields

The current S&P 500 dividend yield is just 1.5%, so it is apparent that "growth" needs to carry a heavier load in the future to achieve similar returns. Some market observers have pointed to low dividend yields as a cause for concern in the past. In fact, stocks at one time in our country's history yielded more than bonds. This situation, at the time, was viewed as a perfectly natural state of affairs. Since stocks were riskier than bonds, why shouldn't they yield more? When the yield on stocks dropped below that of bonds, warnings arose. This "market call" has been wrong for about the last 50 years (or perhaps it was just too early; some might argue it will prove correct "in the fullness of time"!). Both dividend yields and the payout ratio, the percentage of earnings paid out as dividends, have been declining for some time and stocks have managed just fine. The reason frequently professed for the handsome returns stocks have earned over bonds, the so-called equity risk premium puzzle, is that stocks had been undervalued historically, because there was either a lack of understanding or skepticism of the "growth component" of stocks. As growth ensued, not only did equity investors get a boost from growing real dividends paid out of growing real earnings, but also an increase in the amount the market was willing to pay through expanding multiples.

Not only did strong returns allow investors to "see it with their own eyes," theoretical support was lent by Nobel Prize winners Modigliani and Miller who proposed that, all else equal, dividend policy is irrelevant. A corporation paying a dividend to its owners is akin to the owners moving money from their right pocket to their left, they argued. Furthermore, corporations contended it was more tax efficient to return capital to owners through stock repurchases, because dividends were taxed at marginal ordinary income rates, which frequently exceeded the long-term capital gain rate. We are not in the camp that worries excessively about low dividend yields, taking a cue from Phil Fisher who entitled a chapter "The Hullabaloo about Dividends" in *Common Stocks and Uncommon Profits*. In our evaluation of individual companies, the *ability* to pay dividends is often more important than whether the company actually *pays* the dividends. When the company retains the earnings, it places an additional burden on us to ascertain whether the company is reinvesting wisely. At any rate, the tax disincentive to paying dividends has been greatly reduced (for now), so we may see the dividend payout ratio on the rise. If stock prices don't accelerate faster than dividends, yields will rise as well. Still, we believe the expectation for the dividend yield component of return is best estimated as the current yield. **Bottom Line: Dividend Yield of 1.5%.**

Earnings Growth

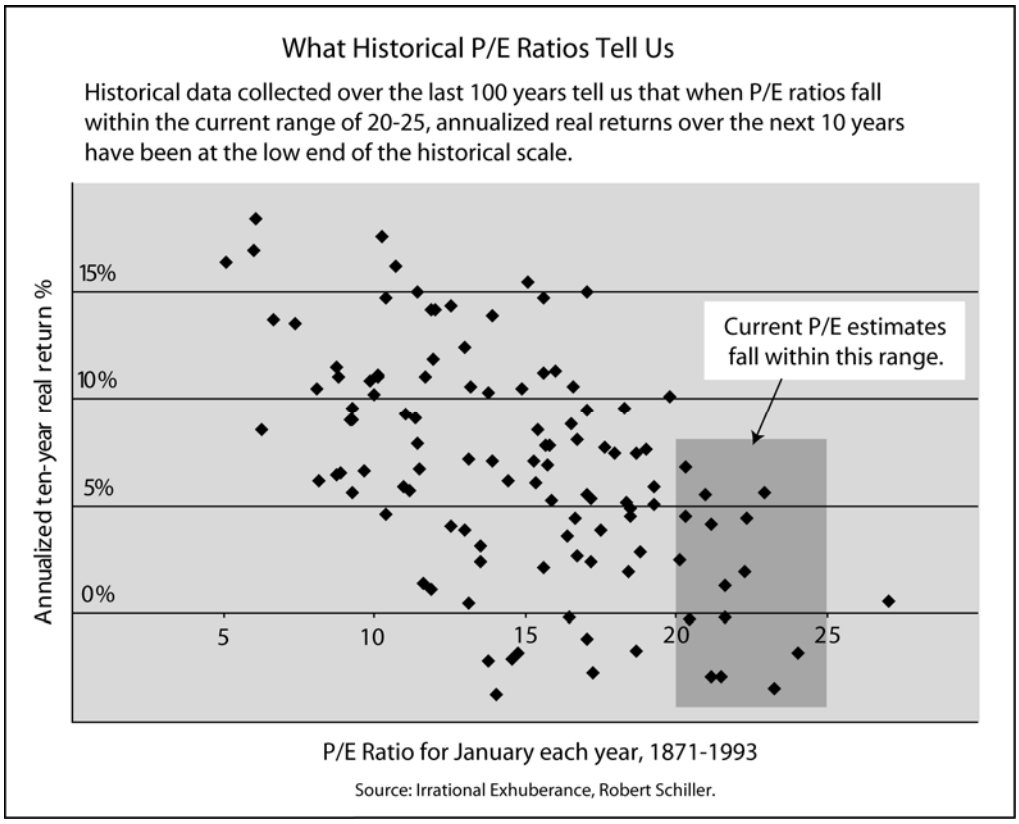
Can growth pick up the slack? At first blush, it seems reasonable. A calculation for a company's growth rate is its return on equity multiplied by the earnings retention rate (1- payout ratio). The return on equity reported by corporate America has been high in recent years (at least based on operating earnings), and earnings retention has increased. Both factors would seemingly point to future growth in excess of historic norms. Yet, a recent study by Robert Arnott and Clifford Asness published in the *Financial Analyst Journal* (2003) found that the historical empirical evidence refutes this, finding that expected earnings growth is fastest when current payout ratios are high and slowest when low. Perhaps there is some time dependent factor or alternative explanation for this finding. One might think growth will be faster in the future, and that might prove correct. Historic precedent, however, will not be the reason.

Can we at least get faster earnings growth from share repurchases? Again, the historical empirical evidence does little to bolster the case. The relevant factor under consideration is net share issuance, and studies have found that share repurchases have not even offset the dilution from new shares issued through initial public offerings, secondary offerings, debt convertible into equity, and options. In summary, while U.S. real GDP growth has been remarkable in the past century, real corporate profit growth is the concern of stock investors. While it may be initially tempting to believe that corporate profits can grow faster than GDP, available evidence is to the contrary. **Bottom Line: Real Earnings Growth of 2.0%.**

P/E Expansion

How about P/E expansion? There has been much debate about the "correct" earnings of the S&P 500. For the sake of argument, let's agree that the current P/E ratio on forward year earnings is 20. When interest rates are low, a higher P/E ratio is justifiable. This argument can be taken too far, however. At a minimum, stocks should require a higher return than long-term investment grade corporate bonds. After all, bonds hold a legal claim to company assets that is senior to the equity. While the cost of debt is explicit and the cost of equity is "unseen" (both in an accounting sense and, unfortunately in the eyes of many corporate managements), how could it make sense to be otherwise? Arguments that rely strictly on a historic record can fall into circular reasoning, whereby the better stocks do, the "cheaper" the cost of equity capital. Once the constraint of a required return for equity in excess of the yield on corporate bonds is introduced, arguments for still higher P/E multiples are difficult to justify.

If inflation remains near 2% or trends lower, the current P/E ratio may be in a justifiable range. However, in our opinion, there is as reasonable chance that inflation could move closer to the 1926-2003 geometric average of 3%. In this scenario, P/E contraction is more likely. For a graphical representation of the historic experience relating beginning P/E ratios with subsequent real returns, we have borrowed a chart from Robert Shiller's book *Irrational Exuberance* (updated with data available on his website for returns through 2003).The chart illustrates the point made in the opening of this article: stocks can only be expected to achieve returns similar to the past if the starting valuation is similar. **Bottom Line: Return from P/E expansion of 0%.**



The Bottom Line

To summarize, a 1.5% yield and 2% real growth would provide a real return of 3.5%. Include an inflation estimate of 2.5%, and the nominal return would be 6%. In our opinion, that is not enough compensation for equity investors (even allowing that the equity risk premium in the past was abnormally high) and thus, the S&P 500 is overvalued. If the market is overvalued, does that mean it will go down in 2004? Surprisingly, that is nearly impossible to predict. The following table illustrates why.

Year	Scenario 1	Scenario 2
2004	6%	-17.5%
2005	6%	9%
2006	6%	9%
2007	6%	9%
2008	6%	9%
2009	6%	9%
2010	6%	9%
2011	6%	9%
2012	6%	9%
2013	6%	9%
Annualized Return	6.00%	6.01%

Notice that each scenario ends with the same annualized return. While we believe 6% is a reasonable estimate for the return of the S&P 500 in the coming decade, it is a safe bet the interim will contain up and down years. We have no idea, however, of the sequence in which these might occur.

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