

Two Little-Noted Features Of The Markets And The Economy

By Peter Bernstein

This issue analyzes two significant aspects of the current environment, one financial and one from the real economy. Neither of these subjects has received the attention it deserves, yet both have important stories to tell. The financial discussion raises tantalizing questions about investor rationality. The comments about the real sector consider current conditions in the labor market and their implications for equity price/earnings ratios in the years ahead.

The Financial Side First

The following discussion includes a personal anecdote which may be familiar to some readers. Nevertheless, we repeat it here because it is essential to my argument.

These events occurred during 1958, when I had been a practicing investment counsel for seven years. The economy had peaked out late in 1957 and was heading into recession at the turn of the year. By the second quarter of 1958, real GDP was declining at a shocking annual rate of 10.4% (due mostly to slashes in business investment). The recession came to an end during the final quarter of 1958, but this episode's sharp decline and brief duration were not its most important characteristics. The historical significance lies elsewhere.

During this recession, the rate of inflation continued to be positive, on both a quarter-to-quarter basis and figuring year-over-year. Indeed, during the steepest part of the decline in real GDP in the second quarter of the year, the CPI was rising at an annual rate of 3.2%, not far from the 3.4% rate at the business cycle peak in 1957:4. Rising inflation during a recession was unprecedented. Weak business conditions in the past had always been associated with deflation, not inflation. During the preceding recession of 1954, the price level had been essentially flat and then declined from 1954:3 through 1955:3.

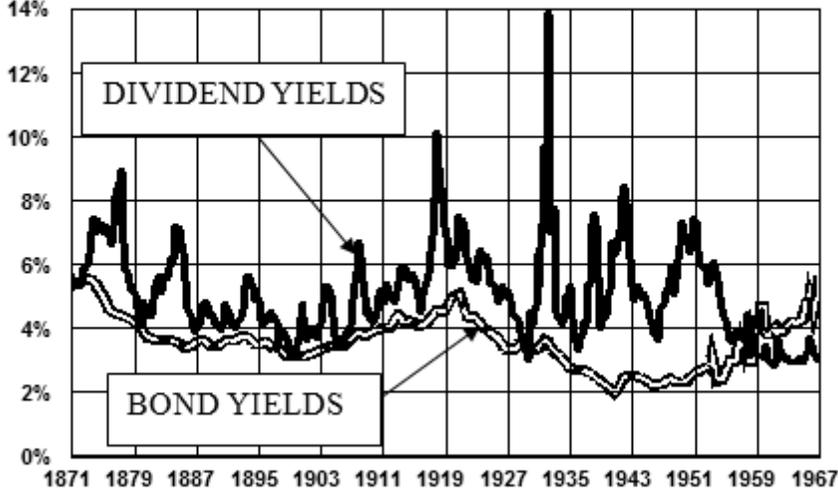
These extraordinary events had an even more extraordinary echo in the capital markets. In the second quarter of 1958, the dividend yield on stocks was 3.9% and the yield on 10-year Treasuries was 2.9%. Three months later, dividend yields were down to 3.5% while Treasuries had climbed to match them at 3.5%. The next three months made history, as stock prices kept rising and pushed the dividend yield down to 3.3% while bond prices kept falling and drove the bond yield up to 3.8%. As the graph on page 2 demonstrates, this, too, was unprecedented. The two yields had come close in the past but had always backed away at the critical moment. In 1958, they reversed their historical positions and have never looked back.

When this inversion occurred, my two older partners assured me it was an anomaly. The markets would soon be set to rights, with dividends once again yielding more than bonds. That was the relationship ordained by Heaven, after all, because stocks were riskier than bonds and *should* have the higher yield. Well, as I always tell this story, I am still waiting for the anomaly to be corrected.

As investors pondered this upside-down yield spread after 1958, two explanations (rationalizations?) began to circulate. First, the vigorous recovery from the 1958 recession had demonstrated that investors could finally put to rest the widely-held expectation of an imminent return of the Great Depression. Truly, a New Era had dawned. Second, as a corollary of the first, the notion of growth stock investing was beginning to take hold. My own article, "Growth Companies versus Growth Stocks," which had appeared in the *Harvard Business Review* in 1956, had attracted widespread attention - it put my name on the map for the first time. In addition, T. Rowe Price's case for growth stock investing was finally gaining respectability. Growth justified dividend yields below bond yields, because the dividend flow could increase over time while bonds were a fixed-income investment.

As I recount this story today, I am beginning to wonder whether my older partners might have had something on their side after all. The graph on page 3 shows the anomaly is now closer to reversing itself than at any time since 1960-1962 when - as at present - 10-year Treasury bonds were yielding less than 4%.¹

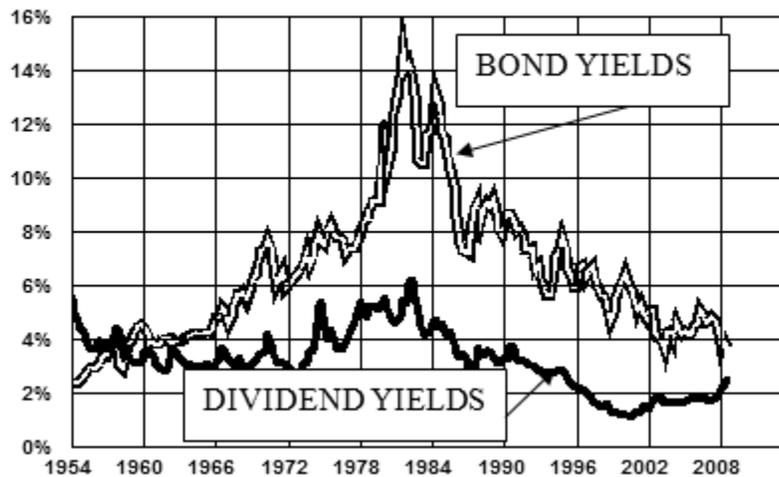
DIVIDEND YIELDS VERSUS BOND YIELDS, 1871:1 – 1967:4



In the unlikely event that the difficulties the economy is facing at this moment are about to melt away, stocks will probably continue yielding less than bonds. On the other hand, if the this deteriorating financial and economic environment persists, or if conditions should become even more alarming, stock prices will fall further and Treasury bond prices will continue to rise. Then a thunderbolt would strike: my partners' forecast of an anomaly in 1958 would turn out to be valid as dividend yields revert to tradition and rise above bond yields. A fifty-year relationship would be thrown into reverse.

In that case, where was the anomaly - in 1958 or in 2008? Are there in fact any rules to define the basic relationship between bond yields and dividend yields? We see no clear answer to these questions.

DIVIDEND YIELDS VERSUS BOND YIELDS, 1954:1 – 2008:3



A profound philosophical dilemma is present here. The yield inversion in the spring of 1958 taught me a lesson I have never forgotten: anything can happen. Just because a relationship had held since the beginning of time is no reason to believe it would also hold until the end of time. Black swans lurk behind every shadow, and we should always be prepared for unimaginable outcomes - unknown unknowns. My older partners may have been mistaken for half a century when they confronted an unknown unknown in 1958, but even a time span of fifty years was no guarantee they were going to be mistaken unto eternity. I, for one, shall not be surprised if the inversion is reversed in the near future, nor shall I expect that reversion to last into the indefinite future.

The graph above provides additional evidence to demonstrate the risks of naively extrapolating the patterns of the past. Consider the correlation between the two variables.

To many observers, the long-running positive correlation between bond yields and dividend yields from 1970 to 1999 has defined the fundamental and enduring relationship between these two variables. This pattern appeals to commonsense, and its consistency over thirty years has given it authority. The coefficient of correlation from 1970 to 1999 was a powerful +76.7%, with a fat t-statistic of 13.0 on the independent variable. With a relationship that potent, why not extrapolate the positive correlation between asset class returns?

Well, there was good reason not to extrapolate. Note that the correlation had been *negative* from 1954 to 1969, with an impressive coefficient of -58.8% and a significant t-statistic. As a result, people active in those years were totally taken by surprise when the correlation switched to positive after 1970, and with such remarkable consistency. But then that surprise was repeated at the other end. The arrival of a new century brought a switch back to a negative sign on the correlation coefficient, and the familiar lock-step process crumbled! From 2000 to the latest data for 2008, the coefficient of correlation has been an imposing -78.2%.

Now let us venture an explanation for these changes in the coefficient of correlation from positive to negative: inflation. From 1954 to 1969, the average annual rate of inflation was 2.1% with a standard

deviation of 1.5%. The period from 1970 to 1999 was entirely different, with an annual inflation rate that averaged 5.3% and a high standard deviation of 3.2%. Then matters settled back down again for the next eight years, with an average of 2.8% and a standard deviation of only 0.9%. Thus, the correlation between the two series has been high when inflation is high and volatile; the correlation has been low when inflation is low and steady. In other words, in order to predict the correlation between stock and bond yields, you need only predict inflation (that is if you are capable of making consistently accurate forecasts of inflation).

But even so, life is not that simple. The approach has a fundamental flaw, so fundamental that, at some point in the future, it must come to light and take over these relationships.

Dividends are variable over time and bond coupons are fixed from issuance to maturity. Therefore, the correlation in returns should be just the opposite of the relationship prevailing since 1954 - *negative* during inflationary episodes and *positive* when the price level is relatively stable. The risks of fixed-income securities under inflation needs no explanation, but dividends have been a firm long-term hedge against inflation. Dividends increased at just about the same rate as the price level from 1947 to 1956, after which they really took off. Indeed, during the worst of the Great Inflation from early 1973 to the peak in early 1980, the CPI rose at an annual rate of 9.2% and dividends increased at an annual rate of 9.0%. Today, dividends are forty times their 1947 level whereas the price level has risen "only" ten times.

Now look back at the upper graph covering the years from 1871 to 1959. The correlation was closest from 1871 to 1929, but those were years of low inflation or even deflation, except from the discovery of gold in South Africa in 1900 to the end of World War I. In other words, investors in the old days appear to have behaved more rationally than investors in the more sophisticated and theoretically aware era since 1954!

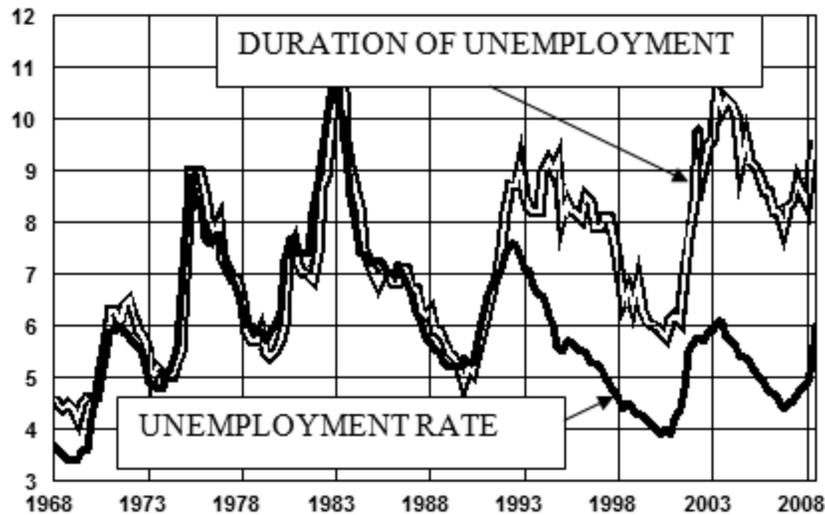
Differing generations of investors appear to have differing views on how bonds and stocks should behave as the environment changes. But the basic truth is simple. The correlation should be negative when inflation is high and positive when inflation is low.

Pain in the Real Economy

The graph below tells a grim tale. Until 1982, the rate of unemployment (unemployment as a percent of the civilian labor force) and the median duration of unemployment (in months) moved up and down together in almost lockstep. Since 1982, however, the duration of unemployment has increased dramatically relative to changes in the unemployment rate. It just so happens that 1982 was also the point at which the growth rate of real compensation began to lag significantly and persistently behind productivity - a condition we discussed at length in our issue of September 15 of this year.

These facts have high importance for investors at the present time. Congress has just passed a bill that "bails out Wall Street." The recent failures and mergers of investment banks have been accompanied by breath-taking bonuses to departing executives responsible for much of the mayhem they leave behind. Income inequality has risen steadily and ominously over the past fifteen to twenty years. Thousands of Americans are losing their homes to foreclosures

**RATE OF UNEMPLOYMENT (%) vs MEDIAN DURATION
OF UNEMPLOYMENT (months)
1954:1 – 2008:3**



A new President and a new Congress will be installed in a few months, at which time both of the curves in this graph are likely to be even higher than they are at this writing. For how much longer will the great mass of Americans tolerate these trends? Regardless of how each of us may feel about these developments, the future direction of political leadership will aim to change the egregious imbalance between winners and losers.

Under these circumstances, and regardless of when the black clouds on the horizon finally begin to brighten, we would put low odds on a renewed bull market with ebullient price/earnings ratios and declining dividend yields. For a long time into the future, equity returns are likely to be muted.

Investor failure to understand the fundamental differences between bonds and stocks and the impact of inflation on those differences has elicited a large literature. The most important of these papers was written in 1979 by Franco Modigliani and Richard Cohn ("Inflation, Rational Valuation, and the Market," *Financial Analysts Journal*). See, also, Clifford Asness, "Fight the Fed Model: The Relationship between Future Returns and Stock and Bond Market Yields," *Journal of Portfolio Management*, Fall 2003. I am especially indebted to both of these papers for guidance in the arguments set forth above.

¹ At this writing, with stocks at 2.8% and bonds at 3.5%, the spread is the narrowest it has been since 1963.