

Economic Outlook

December 2011

Corporate Equity Attractive in the Land of No Returns

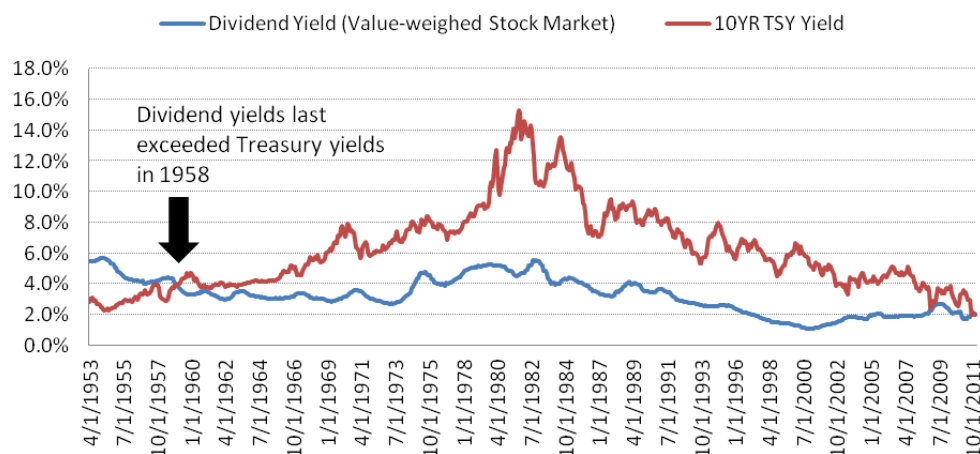
BY JASON M. THOMAS

Current asset prices are inconsistent with the outlook for the United States economy. Data received from the Carlyle portfolio and external indicators suggest an economy likely to grow at an underlying trend rate in excess of 2% with inflation within a historic range of between 2% and 3%. Yet asset prices are priced for something far worse. In fact, the current relationship between corporate equities and Treasury notes suggest that current prices make sense only in the event of an economic disaster. In this “land of no returns,” corporate equities, both public and private, currently offer an attractive premium for bearing this risk, which remains remote.

Dividend Yields Exceed Treasury Rates

In the fourth quarter of 2011, monetary policy, investor risk aversion, and continued growth in corporate earnings combined to push the dividend yield on the value-weighted U.S. stock market below the yield on the 10-year Treasury note.¹ While dividend yields on the stocks of mature, stable, and cash-generative corporations can routinely exceed government bond yields, the dividend yield on the stock market as a whole has not exceeded the 10-year rate since 1958. At current prices, the current income investors derive from a broadly diversified portfolio of stocks (2.1% of market value) is now greater than the coupon income from Treasury securities (2.0% yield to maturity).² Any potential upside growth in stock prices or dividends comes entirely free of charge.

Figure 1:



¹ Historical stock price and dividend yield data taken from the Center for Research in Security Prices (University of Chicago). The dividend yield (or dividend-to-price ratio) is computed using the with and without dividend returns from CRSP, as described in Fama and French, 1988, “Dividend yields and expected stock returns,” *Journal of Financial Economics*.

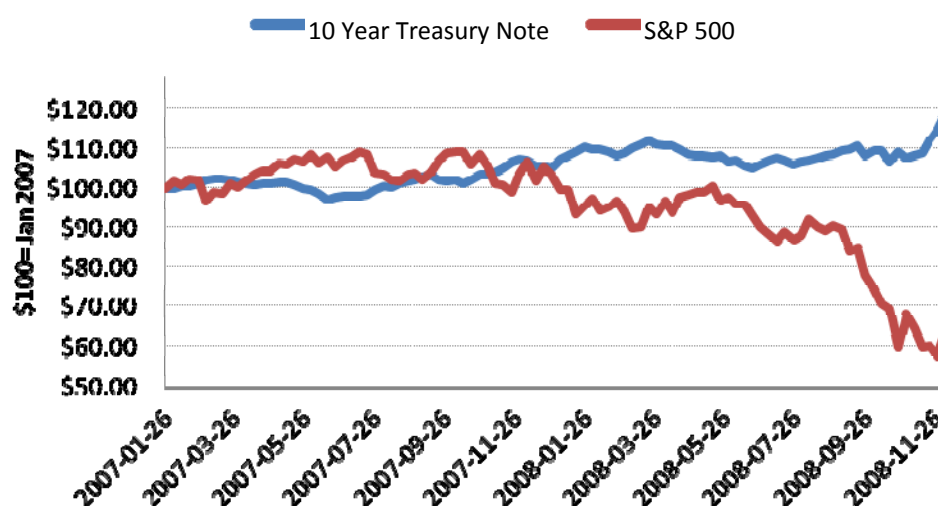
² Measured as of market close on December 12, 2011.

Origins of the Anomaly

Explaining the mechanics of this inversion of yields is straightforward. At its September meeting, the Federal Reserve Open Market Committee (FOMC) announced that it intended to extend the average maturity of its portfolio of Treasury securities. The September announcement followed a (soft) pledge at the August meeting to keep short-term rates near zero through mid-2013.³ These consecutive announcements had the effect of reducing the yield on the 10-year Treasury from an average of 2.96% in the eight weeks preceding the August FOMC meeting to 2.07% in the eight weeks following the September meeting. At the same time, renewed concern about the situation in Europe caused investors to flee risk assets like equities, which caused stock prices to hit their lows for the year in early October. These lower stock prices combined with rapid increases in corporate earnings and distributions to increase dividend yields.

Explaining the economic and investment implications of the inversion in yields is more difficult. Dividends represent just one component of the return from corporate equities. The other, typically larger, return comes from capital gains (or higher future dividends) derived from growing corporate earnings. Between 1958 and 2010, trailing twelve month returns on the value-weighted U.S. stock market averaged 11.3%, with dividends accounting for less than one-third of the total. By contrast, Treasury notes derive no benefit from economic growth; the coupon rate is fixed and residual payoff capped at par value. In simple terms, investors pay more for the current income of corporate equity than the current income from Treasury notes because of the expectation that earnings will be greater in future periods. Dividend yields in excess of longer-term Treasury rates are anomalous because they imply zero (or even negative) expected future corporate earnings growth.

Figure 2:



Source: Federal Reserve Bank of St. Louis, Capital IQ

An alternative explanation is that the high prices (low yields) on Treasury notes relative to corporate equity could be explained by their insurance value. Although the ultimate repayment is capped at the face value of the Treasury bond at maturity, interest rates could plunge in the interim, causing the market value of the bond to rise. Figure 2 [above] depicts the changes in the price of a constant-maturity 10-year note indexed to \$100 on January 2007 relative to the S&P 500, indexed to \$100 on the same month. After the recession began in early 2008 and the Fed reduced interest rates aggressively, the price of the 10-year note increased while the S&P 500 fell due to declining corporate performance. The panic that ensued following Lehman Brothers' bankruptcy filing in September 2008 caused the 10-year note to rise 22% above its January 2007 level even as the S&P 500 shed more than 30% of its value in the fourth quarter. The current inversion of yields could therefore be explained by risk aversion and investors' desire to hold securities that tend to perform well in the event of a crisis.

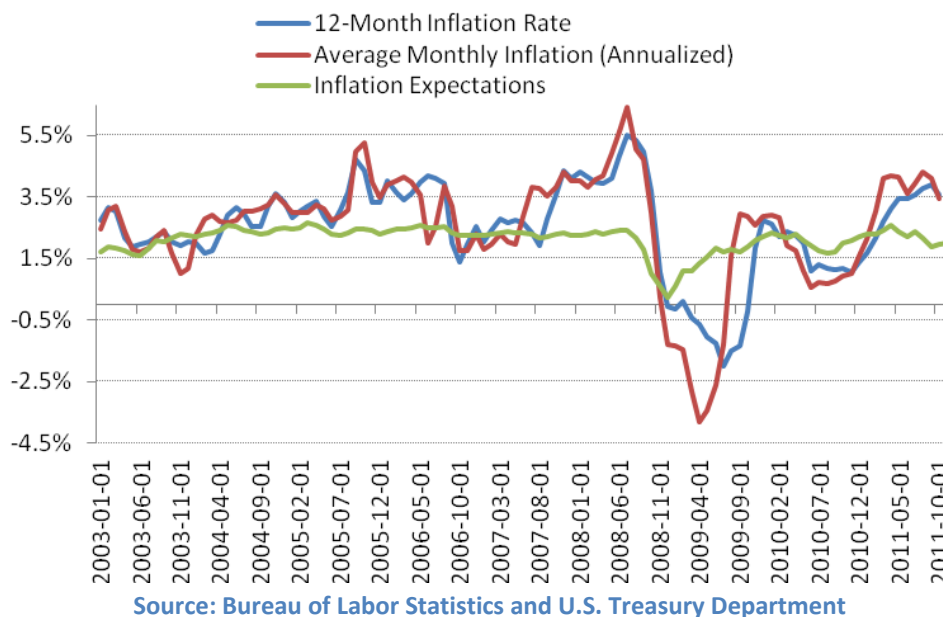
³ As the 10-year yield represents the cumulative expectation for a rolling portfolio of short-term rates plus a term premium, a decline in expectations for short rates has the effect of lowering the 10-year yield.

Treasury Notes Will Produce Negative Real Returns in Most Environments

The key motivation for holding Treasury notes at current yields is based on their “hedge” value. Yet, this hedge value has been attenuated by Fed buying, which has pushed the interest rate on the 10-year note to historic lows. The 22% returns on Treasuries in 2008 were generated by a 2.5 percentage point fall in yields. The zero nominal bound prevents the same returns from being generated today, even if the Treasury yield curve would flatten at zero, which is unprecedented and difficult to imagine. At this stage, it is unclear how much lower 10-year yields would fall in the event of a crisis. The lowest (weekly average) 10-year yield recorded at the peak of the Global Financial Crisis of 2008 was 2.18%.⁴ While a crisis in Europe would likely cause Treasury prices to increase somewhat, the possibility for capital gains on par with late 2008 seems remote, reducing the hedge value of Treasury notes substantially.

If a crisis does not materialize, returns on Treasury notes are likely to prove extremely disappointing. The current yield on the 10-year Treasury is substantially below the current headline inflation rate of 3.5%. Inflation expectations extracted from Treasury Inflation Protected Securities (TIPS) are currently 2%, close to historic averages. At current inflation rates, the real return to 10-year Treasury notes is -1.4%, while the return based on current inflation expectations is zero.

Figure 3:



This is just the baseline expectation; returns could prove to be much worse. Should headline inflation accelerate, or inflation expectations rise by just 1 percentage point, the Fed might have no choice but to increase rates. A one percent rise in yields would inflict more than an 8% fair value loss on current 10-year notes. Even if inflation does not accelerate, the improving economic outlook could cause the Fed to reassess its maturity-extension program and allow longer rates to edge upward from historic lows. Finally, the recent experience of European sovereign borrowers demonstrates that bond market participants can be a fickle bunch. The federal fiscal deficit remains extremely large and the U.S. remains a large net debtor that continues to depend on sizeable net capital flows from abroad. During the third quarter of 2011, the U.S. received net financial inflows of \$845 billion (annualized) or 5.6% of GDP, which was more than entirely consumed by a federal deficit of 8.9% of GDP.⁵ Should financial flows from the rest of the world slow, the likely result would be modestly higher interest rates even in the face of stable inflation and continued Fed purchases.

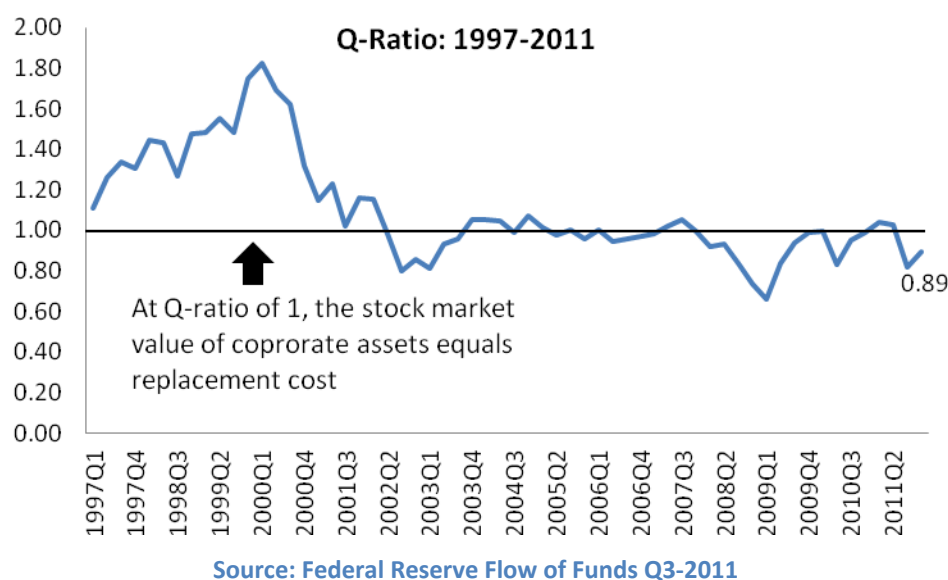
⁴ Federal Reserve Bank of St. Louis Weekly data.

⁵ Fed Flow of Funds. The net flows consisted of \$653 billion of new lending from the rest of the world and \$192 billion of negative borrowing (debt repayment).

Negative Expected Real Returns on Treasury Notes as Fed Policy

The negative outlook for returns on Treasury notes reflects a conscious policy choice made by the FOMC. Rather than providing liquidity to banks or address systemic risk, the Fed has used its balance sheet since the end of 2009 to “support economic activity by keeping longer-term private interest rates lower than they would otherwise be.”⁶ Although most of the rhetoric focuses on the benefits that accrue to borrowers from lower interest rates, the policy itself works through its effect on lenders. By buying longer-duration assets from the public, the Fed lowers the interest rate on Treasury notes below where it otherwise would have been. The lower prospective return on Treasury notes leads investors to “bid up the prices of other investments, including riskier assets such as corporate bonds and equities.”⁷ Called the “portfolio balance channel,” the goal of the asset purchases is to make Treasury notes so unattractive that investors will have no choice but to reorient their portfolios towards riskier assets.

Figure 4:



What will the Adjustment in Asset Prices Look Like?

Current asset prices only make sense in a world of declining earnings and output, yet the probability of a contraction like that experienced in 2008 remains remote. Professional forecasters expect fourth quarter GDP growth in the U.S. to range between 3.4% (Goldman Sachs) to 3.7% (Macroeconomic Advisers). Although this is likely to be a temporary acceleration in growth fueled by a decline in inventories in the third quarter equal to 1.5% of GDP, the Philadelphia Fed survey of professional forecasters anticipates 2012 growth of 2.4%, with growth accelerating throughout the year.

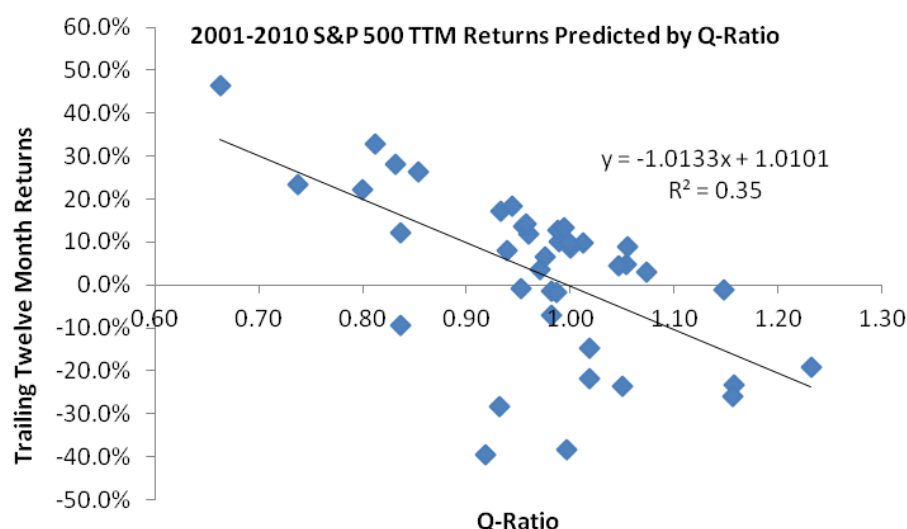
Should this rather modest growth rate occur, the returns on corporate equity could prove to be quite large. According to the Fed, as of September 30, nonfinancial corporate equities were priced at an 18% discount to fair value.⁸ Updated for the increase in stock prices since then, the “Q-ratio” is currently 0.89, which suggests the stock market is about 11% under-valued (see Figure [above]). Based on the September 30 data, a Q-ratio at 1 would be consistent with an S&P 500 near 1360. Estimating the speed at which stock prices adjust to fair value is difficult because the underlying fair value shifts to reflect changes in the replacement cost of corporate assets. Figure [below] depicts the relationship between the Q-Ratio and the trailing twelve month returns on the S&P 500 since 2001. Based on this measure, a Q-Ratio of 0.82 is consistent with a trailing twelve month’s return of 17.9%, net of dividends.

⁶ See Brian Sack, December 2009: <http://www.newyorkfed.org/newsevents/speeches/2009/sac091202.html>.

⁷ Sack.

⁸ B. 102. Corporate equities as a percentage of Net Worth.

Figure 5:



S&P 500 Returns: 1997-2010

	Q-Ratio >1	Q-Ratio <1
# of Quarters	28	28
Average TTM Return S&P 500 Returns	1.3%	7.6%
Standard Deviation	19.9%	19.4%

Conclusion

The conditions in place at the end of 2011 suggest that anything approximating normal growth is likely to result in high returns on corporate equities next year. Current prices would only make sense if the economic outlook were skewed towards a contraction in output and corporate earnings. While tail risk from Europe continues to weigh heavily sentiment, the actual distribution of potential outcomes is much more symmetric, with the significant upside potential from accelerating growth largely ignored. The message from Fed policymakers is to get out of Treasury securities and into corporate equities, public and private. It may very well be time to heed their call.

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