

Economic Outlook

December 26, 2012

Expected Returns Clouded by Mixed Messages in Debt, Equity Markets

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- Stock market returns in 2012 were consistent with our December 2011 *Economic Outlook*, but the anticipated shifts in relative yields did not materialize.
- A year ago, assets were generally priced for a recession that we viewed as unlikely. Today, different assets seemed to be priced with different macroeconomic scenarios in mind.
- High grade fixed income markets appear to exhibit “bubble dynamics” in that prices are based on expected capital gains.

One year ago, we observed that corporate equity – both public and private – looked extremely attractive relative to both historic fundamentals and other assets like high grade sovereign credit.¹ In 2011, the dividend yield on the *aggregate* U.S. stock market rose above the yield on the 10-year Treasury note for the

first time since the 1950s. As we noted a year ago, when the current income on a typical stock portfolio exceeds that of bonds, “any potential upside growth in stock prices or dividends comes entirely free of charge.” In short, stock prices only made sense if one believed that corporate earnings and dividends were likely to contract.

As there were no signs of contraction from the most cyclically-sensitive indicators in our U.S. portfolio, we expected high returns in 2012. We noted that the observed discount to fair value as of September 30, 2011 was “consistent with a trailing twelve month’s return of 17.9%, net of dividends.” As it turned out, the S&P 500 returned 27% in the year ending September 30, 2011 and is up by more than 17.3% in calendar year 2012 (through December 20).

Right Forecast...for the Wrong Reasons?

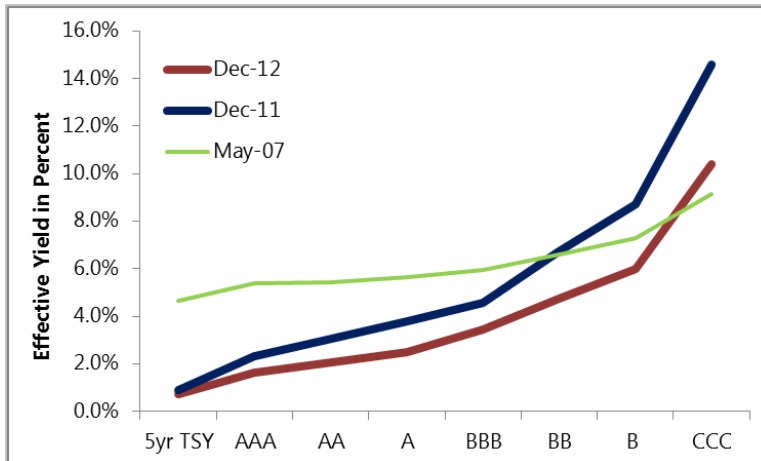
What has been so interesting about the upward adjustment in stock prices is that it has occurred at the same time as Treasury yields continued to *fall*. By December 2012, the yield on the 10-year note averaged 1.7% over the prior three months, down from 2.1% one year ago.² The negative gap between the dividend yield and 10-year Treasury yield actually *widened* over the past year. High returns in 2012 helped move corporate equity prices closer to their historic relationship with fundamentals but the apparent *relative* mispricing actually deepened.

¹ “Corporate Equity Attractive in the Land of No Returns,” *Economic Outlook*, December 12, 2011.

² U.S. Treasury.

The anticipated shift in relative yields instead occurred in the speculative grade credit market. **Figure 1** plots the “credit curve” – the slope of the relationship between credit rating and effective yields. Over the past year, interest rates fell across the risk structure, with speculative grade yields falling by an average of 296 basis points relative to December 2011. During the year, yields on BB-and-B-rated corporate credits (4.74% and 5.98%, respectively) actually fell well below where they stood at the peak of the previous credit cycle in May 2007 (green line in **Figure 1**).

Figure 1: Credit Curve³



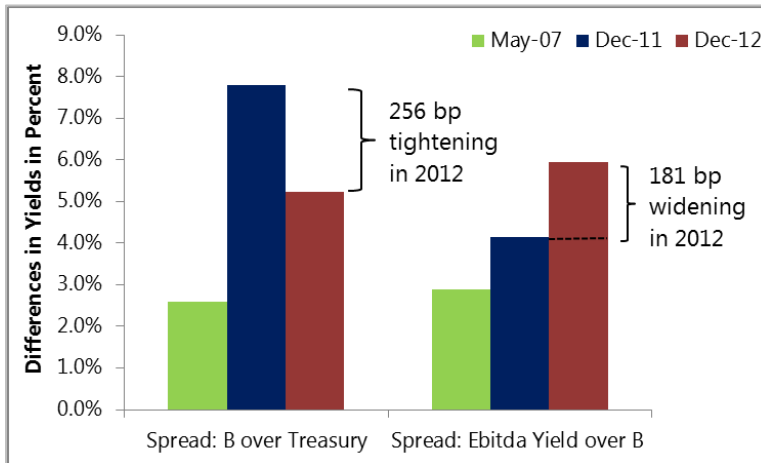
While effective yields are much lower than in 2007, spreads relative to Treasuries actually remain quite wide. As shown in **Figure 1**, the credit curve in May 2007 was exceptionally “flat,” as investors received very little compensation for assuming additional credit risk. Today’s curve remains relatively “steep,” by comparison. As shown in **Figure 2**, the spread on B-rated corporate credits over equivalent duration Treasury notes was just 260 basis points in May 2007, about one-third as large as the spread in December 2011 (780 basis points) and half as much as the December 2012 spread (524 basis points). Despite the 256 basis points of tightening observed in 2012, investors in B-rated credits are actually well compensated for credit risk, with current spreads about 82 basis points wider than the 15-year average.

While spreads on speculative grade credits have tightened, the spread between Ebitda yields⁴ and yields on B-rated credits widened to new record highs. Since 1996, the Ebitda yield on the S&P 500 has exceeded the effective yield on B-rated credits by just 26 basis points, on average. A year ago, the spread was 414 basis points, nearly 16x the historic average. Yet, as shown in **Figure 2**, the Ebitda yield-to-B spread actually widened by 181 basis points during 2012 and now stands at a record 595 basis points. Never before have creditors, in the aggregate, been satisfied with so small a share of companies’ pre-tax operating earnings.

³ Federal Reserve Bank of St. Louis.

⁴ Trailing twelve month’s Ebitda relative to Enterprise Value (the market value of debt and equity net of cash).

Figure 2: Yield Spreads: B-Treasury and Ebitda Yield-B ⁵



Discerning the Macroeconomic Content of 2012's Price Adjustments

Rather than “solving” the conundrum identified last year, the movements in speculative grade credits have actually made the situation more confusing. Last year, wide credit spreads and low equity prices suggested that market participants (or at least the marginal buyer of these securities) had a bleak macroeconomic outlook and demanded sizeable compensation for bearing the risk of a sustained decline in operating earnings and the associated increase in defaults.⁶ We saw things very differently based on the economic indicators from our portfolio, but the macroeconomic implications of asset prices were easy enough to understand.

It is not at all clear what future macroeconomic circumstance is consistent with today's relative yields. Equity is a buffer between the (unobserved) market value of the corporation and the value of debt. A decline in corporate earnings would reduce the market value of the corporation and equity prices, increase defaults and default expectations, and place downward pressure on the price of debt.⁷ Do investors today anticipate a sudden decline in operating earnings that reduces equity values but somehow manages to leave speculative grade borrowers unscathed?

The most likely explanation for the apparent disconnect could be market segmentation. As shown in **Figure 3**, net flows out of equity mutual funds have averaged \$14 billion per month since the second quarter of 2012. At the same time, net *inflows* into taxable bond mutual funds have averaged \$17 billion per month over the same period (**Figure 4**). Fund flows from equity funds to debt funds may have caused equity fund managers to sell to meet withdrawals at the same time as fixed income managers have to buy, irrespective of price. If true, this phenomenon will likely prove to be short-lived as capital structure arbitrageurs buy equity and sell debt in the same companies.

⁵ Federal Reserve Bank of St. Louis

⁶ Probabilities implied by asset prices are risk-adjusted, which means that the outcomes may not actually be anticipated but simply associated with a high state price.

⁷ This relationship stems from the put-call parity of Merton (1974), “The Risk Structure of Interest Rates,” *Journal of Finance*.

Figure 3: Monthly Net New Cash Flows, Equity Mutual Funds⁸

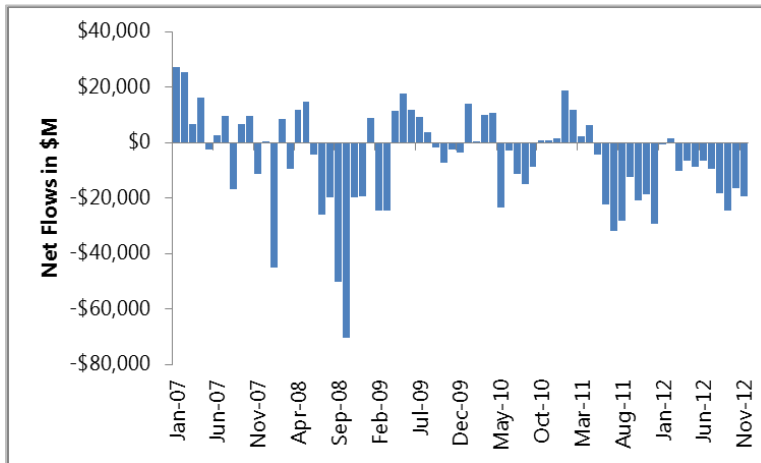
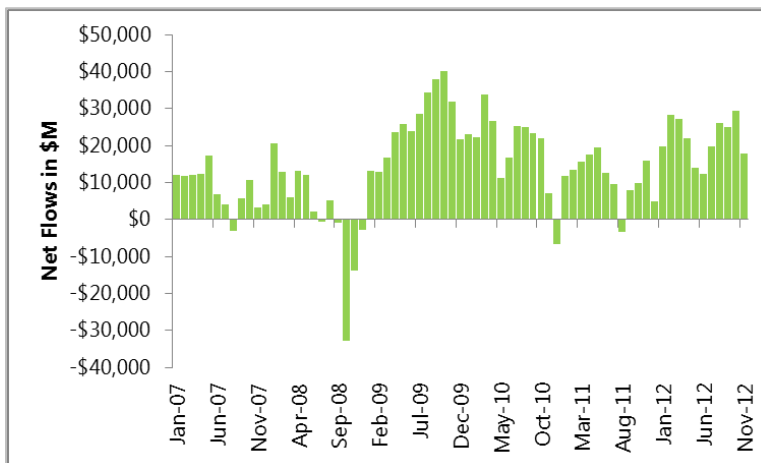


Figure 4: Monthly Net New Cash Flows, Taxable Bond Mutual Funds⁹



The Role of Monetary Policy

Alternatively, the phenomenon could be a rational response to expectations of continued monetary policy accommodation. At the Federal Reserve Bank of Kansas City's annual symposium at Jackson Hole, Fed Chairman Bernanke again emphasized that a main objective of quantitative easing is to shift the supply of investible securities and push investors into riskier assets.¹⁰ As we argued a year ago: "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." Instead, the effects of asset purchases seem to have been limited to fixed income markets.

Default is a function not only of economic performance, but also liquidity conditions. CCC-rated issuance volume has a -0.81 correlation with annual default volumes and explains 67% of the year-to-year

⁸ Investment Company Institute.

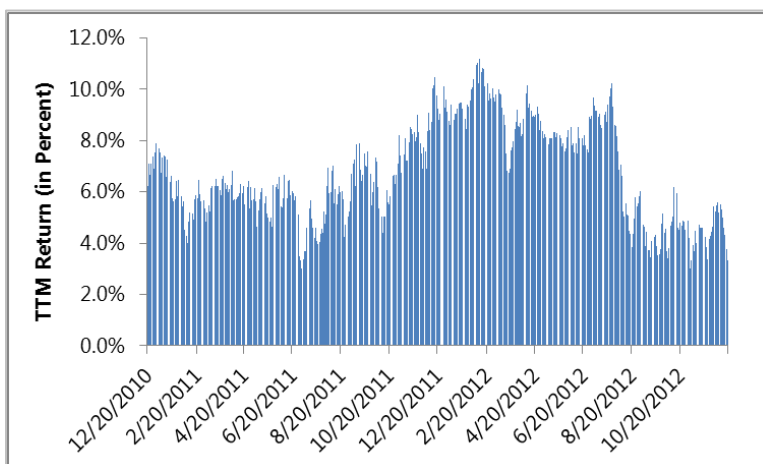
⁹ Investment Company Institute.

¹⁰ Bernanke, B. (2012), "Monetary Policy since the Onset of the Crisis," FRBKC Jackson Hole Symposium.

variation in the speculative grade default rate.¹¹ The relationship is straightforward: when the market is open to the refinancing of CCC credits, defaults are low and *vice versa*. Investors can rationally anticipate sluggish growth but still feel comfortable with speculative grade debt at current prices because of expectations that Fed policy will ensure the market will remain open to the refinancing of these borrowers.

At the same time, Fed policy may have the unintended consequence of making high grade credit more attractive than it would otherwise be. The Fed can only engineer a substantial reduction in the yields on longer-term Treasury notes by bidding up their price. Since the recovery began in July 2009, yields on AAA credit have been falling at an average rate of 0.5% per week (1.5 basis points), which has translated to a cumulative decline in yields of more than 250 basis points. Unlike speculative grade credits, spreads on AAA assets are well inside of historic averages. As shown in **Figure 5**, over the past two years the average trailing twelve month's (TTM) return on AAA corporate bonds has been 6.7%, despite yields that have averaged just 2.2% over this period. It seems possible – if not likely – that this momentum has created a dynamic where buyers extrapolate forward previous capital gains to compute expected returns far in excess of current yields.

Figure 5: Unlevered TTM Return on AAA Bonds¹²



Is there a Bubble in High Grade Credit?

The word “bubble” is often used to describe any episode where prices appear to be rising faster than can be explained by fundamentals. In technical terms, bubbles arise when the market price of an asset incorporates an expected capital gains component derived from an expectation that other investors will drive the price higher in the future. For this reason, financial economists generally assume that bubbles cannot exist on fixed income assets because of their clearly defined terminal value.¹³ Future stock and real estate prices are indeterminate and can differ substantially based on differing expected growth rates in earnings or rents. The best a fixed income investor can do is to receive the full promised face value at maturity.

¹¹ Carlyle Analysis of Bank of America H0A3 Index.

¹² Bank of America Merrill Lynch, COA1 Index.

¹³ Campbell, Lo, and MacKinlay (1997), *The Econometrics of Financial Markets*. Princeton University Press.

Technical definitions aside, capital gains have accounted for two-thirds of the average return on AAA credit over the past three years. If high grade credit prices are sustained by expectations of future capital gains resulting from ongoing Fed purchases, a “bubble” seems to be a perfectly apt characterization. A bubble does not cease to be a bubble simply because the Fed consciously engineers it.

Conclusion

Returns on the S&P 500 were consistent with our forecast from one year ago, but not as a result of the anticipated changes in relative yields. The equity market’s historic discount (relative to fundamentals) closed, but its cross-sectional discount (relative to other securities) actually widened during the course of the year. Especially aberrant is the nearly 600 basis point spread between Ebitda yields and the effective yield on B-rated credit.

While the current *relative* equity discount could be explained by fund flows, monetary policy offers a more satisfying explanation. The Fed asset purchase program directly bids up the price of the highest credit quality assets and provides liquidity support to speculative grade borrowers. Without signs of material improvement in employment conditions or increases in inflation expectations, monetary policy will likely prove to be *more* accommodative in 2013 than it was in 2012. At the current pace of monthly purchases, the Fed would expand its balance sheet by one-third by the end of the year through the addition of more than \$1 trillion in high grade fixed income assets.

We expect more modest returns in 2013. Corporate equities are no longer so obviously discounted relative to fair value and the apparent relative mispricing seems more likely to be resolved through declines in the prices of high grade fixed income assets. As yields approach zero, it will become progressively more difficult for the Fed to generate capital gains on AAA assets. A potential unraveling of the “bubble” in high grade fixed income assets at a faster pace than currently anticipated could provide an additional boost to equity fund flows and prices in the new year.

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