

# Russell Research

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## A case for high-yield bonds

High-yield bonds have historically produced strong returns relative to those of other major asset classes, including equities, and with significantly less downside.<sup>1</sup> As the name indicates, high-yield bonds are indeed a higher-yielding asset class that may offer both higher income and higher total return than other bonds. Even so, the high-yield bond market is often viewed as highly risky. Whether such assessment accurately describes the opportunity set depends on what investors are looking for. From Russell's perspective, we believe this asset class can provide an attractive benefit to a diversified portfolio.

Credit agencies rate high-yield bonds lower than investment-grade bonds, and due to the lower rating, investors demand a credit risk premium. The default risk and price changes associated with high-yield bonds are indeed much higher than those associated with investment-grade bonds. However, as exhibited below, high-yield bonds have historically delivered equities-like total returns – with half the volatility of equities. In addition, Russell's longer run strategic forecasts reveal return expectations above investment grade bonds with much less volatility than equities. Combined with a low correlation to most asset classes, under many scenarios there is a strong case for a strategic allocation to high yield bonds in a diversified portfolio.

For the past two decades, in an environment of declining interest rates, high-yield bonds have benefited from their higher-yielding characteristics. It is not certain that the current economic environment will foster the same opportunities. However, with many market forecasters expecting slow and modest GDP growth for the U.S. economy in the coming years, and continued deleveraging in both public and private sectors, interest rates are expected to stay low for the foreseeable future. In the present low interest rate environment, generating current income is becoming a challenge for investors. Therefore, high-income-producing assets, such as high-yield bonds, may offer an attractive opportunity. That is one of the main reasons why this asset class has been experiencing tremendous fund inflows in the recent year.

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<sup>1</sup> Refer to Figure 1 and Figure 2 for indexes/asset classes included in the analysis.

### Historically favourable returns for high yields

High-yield bonds have historically offered substantial and reliable coupon income. They are corporate debt obligations that are rated below investment grade (i.e., BB/B/CCC) by the major credit rating agencies – Moody's Investors Service, Standard & Poor's Ratings Services and Fitch Ratings. To compensate investors for the increased credit risk associated with leveraged capital structures, issuers of high-yield bonds pay higher coupon rates than do the issuers of investment-grade bonds. The higher income offers a buffer against the price volatility and default probability of the asset class, and high-yield bonds have in fact generally delivered better returns than equities during economic downturns while retaining upside potential during economic recoveries. High-yield bonds often bring favourable returns in rising interest rate environments due to the combination of income and price appreciation. Russell expects the long-term performance of high-yield bonds to lie between the long-term performances of investment-grade bonds and equities. However, it is interesting to note that high yields outperformed equities, as well as many other fixed-income securities, over 5-, 10- and 15-year periods (see Figure 1).

Figure 1: Historical return (%) comparison

Index	1 Year Return	3 Year Annualised Return	5 Year Annualised Return	10 Year Annualised Return	15 Year Annualised Return	20 Year Annualised Return
Barclays U.S. High Yield	6.94	25.23	8.15	9.51	7.10	8.18
Barclays IG Corporate	10.37	13.56	7.03	6.52	6.80	7.18
Barclays U.S. Aggregate Bond	8.37	7.52	6.36	5.68	6.35	6.59
JP Morgan Emerging Markets Bond Index Global*	13.92	17.87	8.79	10.95	9.80	N/A
Barclays US Government	8.85	4.90	6.22	5.41	6.16	6.42
Citi 10-Year Treasury	17.16	6.50	8.06	6.38	6.56	6.63
RUSSELL 1000® Index	4.86	26.25	1.77	4.63	5.88	8.49
RUSSELL 2000® Index	-0.15	29.48	1.83	7.00	6.94	8.44
MSCI Emerging Market Equity	1.84	24.73	6.01	13.27	9.63	17.34
Citi World Government Bond Index	7.17	4.08	4.53	4.23	4.79	5.87

\*Data: Annualised 18 year data from 1/3/1994 to 29/2/2012

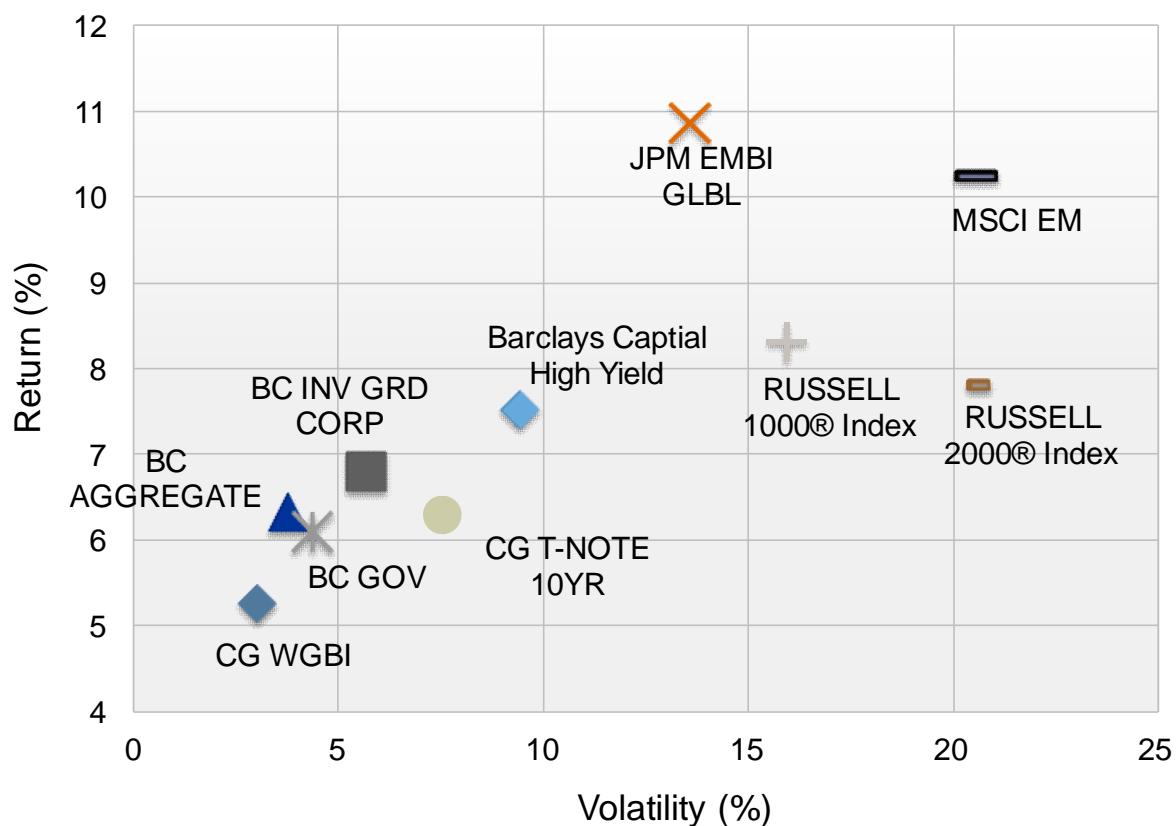
Source: Russell, Barclays, JP Morgan, Citi, MSCI

Indexes are unmanaged and cannot be invested in directly. Past performance is not indicative of future results.

### Equities-like returns, but with much lower volatility

High-yield bonds have generated returns that exceeded those of other fixed income assets included in the analysis above and were similar to those of equities over the last 18 years. Over the same period, the volatility of high-yield bonds was half that of U.S. equities (Figure 2). The substantial proportion of total return coming from steady coupon income contributed to a lower return volatility. In other words, high yield has generated strong risk-adjusted return vis-à-vis U.S. equities.

Figure 2: Return and volatility comparison



Data: Annualised 18-year data is from 31/3/1994 to 29/2/2012, as some data goes back only to 1994.

Volatility as measured by standard deviation

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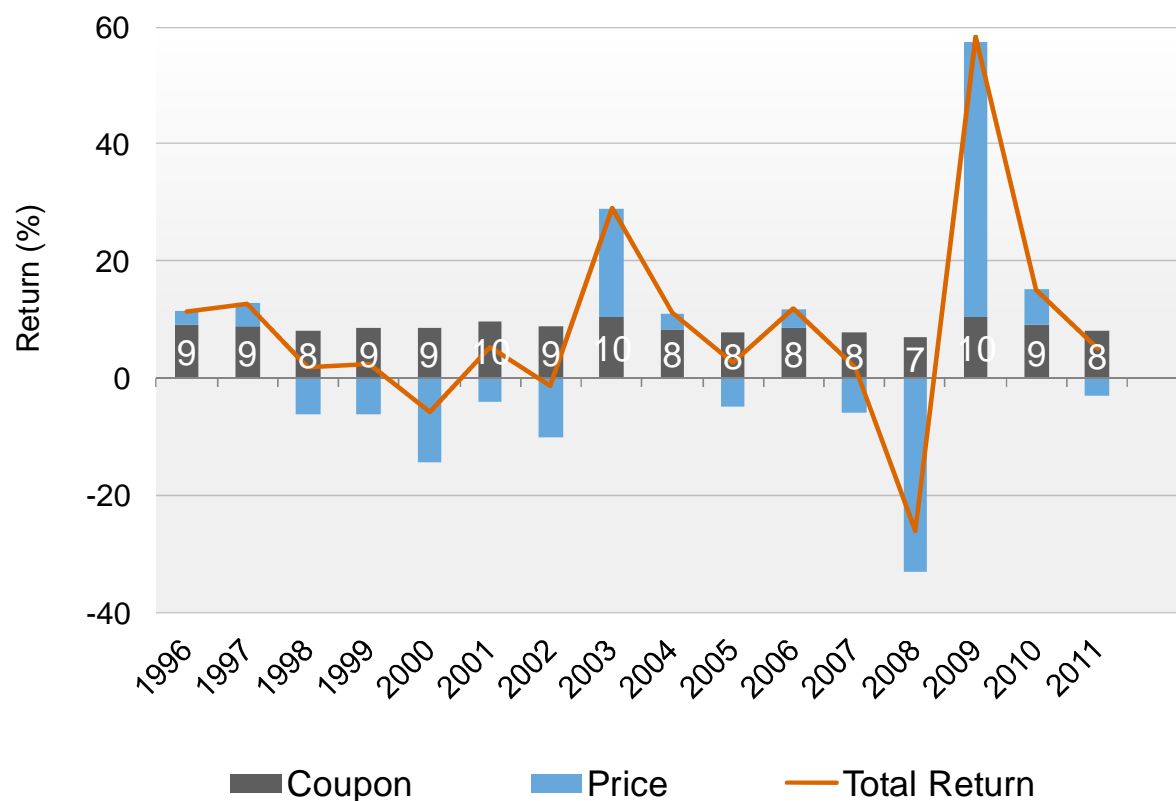
Source: Russell database

### High-income-generating asset class

Returns for high-yield bonds are generated by two components: coupon income and price change. Coupon income has been the major return driver for the high-yield asset class, with average annualised coupon income of 9.0% since 1996. Figure 3, below, which shows the total return breakdown of the high yield asset class, indicates the steady coupon income over time. It is important to note that over time, the coupon component has served to cushion the price volatility of the asset class. This is a key reason why high-yield bonds have generated strong risk-adjusted returns over the long period. As a result, high yield (as measured by the Barclays U.S. High Yield Index) has experienced only three negative annual total returns over the past 16 years.

Figure 3: Decomposition of high-yield total returns

High yield



Source: Barclays Capital U.S. High Yield Index

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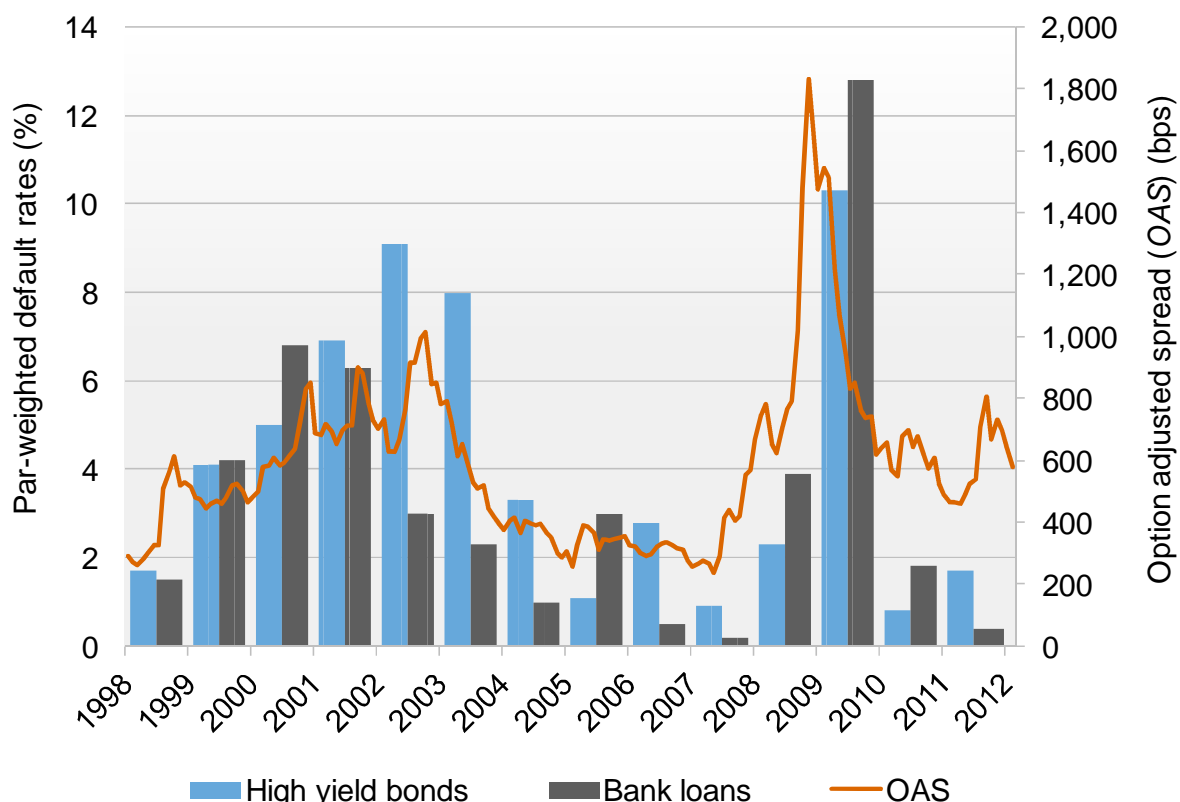
### The disconnect between valuation and default risk

Most market participants and rating agencies are forecasting that high yield's default rates will marginally increase in 2012 but still remain well below the historical average. A number of factors support this expectation. Since the 2008 crash, many issuers of high-yield bonds have made significant efforts to strengthen their balance sheets through free cash flow generation, debt reduction and liquidity management, combined with capital expenditures reduction, inventory management and the refinancing of their near-term debt obligations. Those corporations have managed to refinance and extend a sizeable sum of debt that was due in the relatively near term (the "maturity wall"). This restructuring allowed for significant relief of the corporations' financial pressure for the foreseeable future. All of these aspects support a lower default expectation for the coming years.

Historically, high yield spreads have been strongly correlated with the levels of default loss in the market; however, there appears to have been a disconnect between high yield spreads and default expectations both over the last couple of years and going forward. For instance, while the default rates in 2010 and 2011 were less than 2% (well below the historical average of roughly 5%), the high yield spread remained elevated (Figure 4). Although the spread has compressed in recent months, there continues to be a notable gap between the current spread and default expectations as exhibited. In other words, market valuations are pricing in more defaults than many market participants are expecting. One

plausible explanation for the high level of spreads is the anemic nature of the economic recovery thus far. Another is the compensation for increased liquidity premium. While the reasons for current spread levels are open to debate, the existence of the gap between the market valuation and the near-term default projection is clear. If the market were to normalise at the point where the spread level coincides with the market default experience, as it has done in the past, investors should benefit from further spread tightening.

Figure 4: Historical high yield spreads and default rates

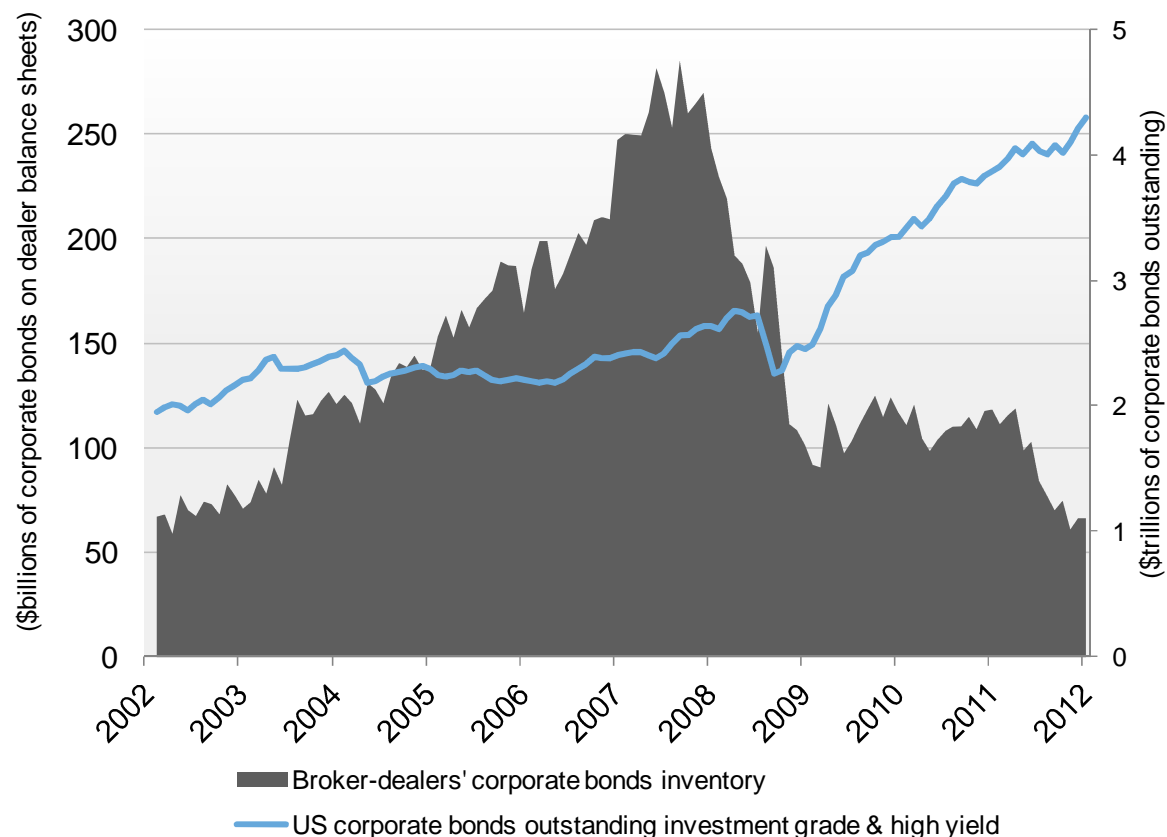


Data: 2012, as of 29/2/2012. Source: Barclays Capital, J.P. Morgan  
Data is historical and is not indicative of future results.

### Developments in the high-yield bond market's technical side

Undeniably, technical considerations impact the high-yield bond market. The changing regulatory environment appears to have constrained trading activities. Banking regulators have recently proposed a number of regulations in attempts to restrict proprietary trading, and those have evolved to become what is generally called "the Volcker Rule." This proposed rule will prohibit U.S. banks from conducting any proprietary trading or trading for their own profits by engaging in the trading of securities, derivatives and other financial instruments. Pending implementation of the rule appears to be causing reluctance among broker-dealers to hold corporate bond inventory on their balance sheets. Figure 5 shows the significant decline at the end of 2011 compared to its peak in 2007. This might have a profound effect in high yield markets in the form of declining market liquidity. At the same time, the amount of outstanding corporate debt has continued to increase. Going forward, this could mean relatively higher trading costs for corporate bonds.

Figure 5: The technical picture of liquidity in corporate bonds



Source: Bloomberg, Barclays Capital

Data is historical and is not indicative of future results.

Another notable development affecting the high-yield bond market is the rapid growth in numbers of exchange-traded funds (ETFs). The high yield asset class has been experiencing strong fund inflows, and in recent months a large portion of the inflows has been into ETFs. While high-yield ETFs currently account for less than 5% of the high yield market, according to Barclays Capital, the heavy trading in ETFs, which are concentrated in larger issues, is adding volatility to the market. Thus, high yield money managers are increasingly cognizant of ETF holdings.

Concurrent with the development of regulations and ETFs, the market appears to be showing a strong preference for liquid or large high-yield bond issues. In addition to the heavy inflows into ETFs, broker-dealers are also showing preference for liquid bonds, as the Volcker Rule will discourage them from carrying inventories of lower-rated bonds.

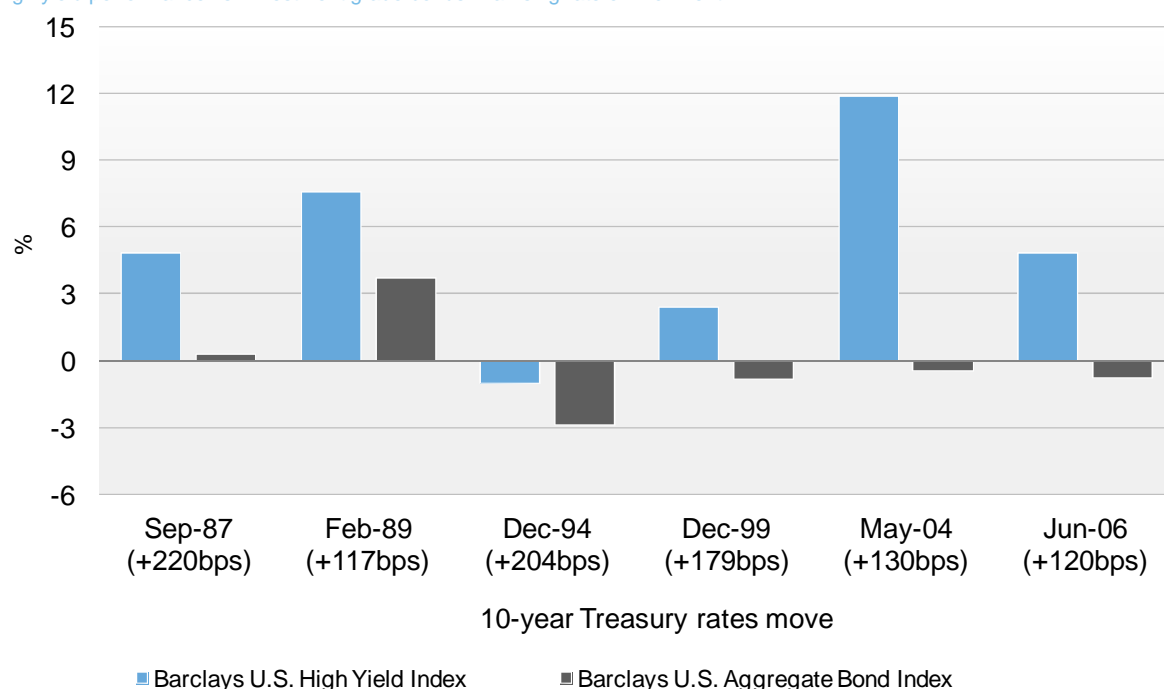
### The effect of rising interest rates

Given today's historically low interest rate environment, one might expect that interest rates will rise in the future. While rising interest rates are generally not a favourable condition for fixed income securities, high-yield bonds are considerably less sensitive to interest rates than are other fixed income securities. This insensitivity is largely because high-yield bonds may experience spread tightening when interest rates rise, given that higher prevailing interest rates in U.S. Treasuries often coincide with economic expansion subsequent to inflationary pressures. In other words, investors might be willing to accept greater credit risk

in a rising interest rate environment. While there could be other reasons for an increase in rates, and understanding the dynamics behind any rate increase is critical, historical rising rate environments have exhibited favourable outcomes in high yield performance. Furthermore, as we noted earlier, a large component of high-yield bond return comes from coupon income, which reduces the volatility of total return. To illustrate this point, Figure 6, below, shows the historical periods when the 10-year U.S. Treasury rate rose more than 1.0% in a 12 month period and compares the performance of high yield and other fixed income asset classes for the sample periods. A combination of the higher income cushion and generally improving economic conditions contributed to positive results for high-yield bonds in multiple environments of rising interest rates.

**Figure 6: Comparison of fixed income returns in rising interest rate environments**

High yield performance vs. investment grade bonds in a rising rate environment



Source: Russell database, Bloomberg

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### High-yield bonds' low correlations with other assets

The correlation profile of high-yield bonds is favourable. High-yield bonds have historically enjoyed low correlations with other asset classes. As Figure 7 illustrates, the high yield asset class has low correlations with government bonds, credit and equities, giving investors an opportunity to diversify a portfolio. Furthermore, high-yield bonds have historically had a negative correlation with U.S. Treasuries.

Figure 7: Correlations

Index	BC High Yield	Russell 1000® Index	Russell 2000® Index	MSCI EM (Equity)	BC IG Corp	JPM EMBI GLBL	BC U.S. AGG Bond	Citi WGBI	BC GOV	Citi 10-year (T-Note)
BC High Yield	1.00	0.64	0.63	0.60	0.54	0.52	0.21	-0.07	-0.09	-0.13
Russell 1000	0.64	1.00	0.83	0.74	0.28	0.54	0.05	-0.13	-0.15	-0.18
Russell 2000	0.63	0.83	1.00	0.72	0.20	0.50	-0.04	-0.20	-0.22	-0.25
MSCI EM (Equity)	0.60	0.74	0.72	1.00	0.21	0.63	-0.05	-0.23	-0.24	-0.25
BC IG Corp	0.54	0.28	0.20	0.21	1.00	0.47	0.87	0.62	0.67	0.64
JPM EMBI GLBL	0.52	0.54	0.50	0.63	0.47	1.00	0.34	0.19	0.17	0.16
BC U.S. AGG Bond	0.21	0.05	-0.04	-0.05	0.87	0.34	1.00	0.84	0.94	0.90
Citi WGBI	-0.07	-0.13	-0.20	-0.23	0.62	0.19	0.84	1.00	0.89	0.88
BC GOV	-0.09	-0.15	-0.22	-0.24	0.67	0.17	0.94	0.89	1.00	0.98
Citi 10-year (T-Note)	-0.13	-0.18	-0.25	-0.25	0.64	0.16	0.90	0.88	0.98	1.00

Data: Monthly return data from 1/1/1994 to 29/2/2012. Source: Russell database

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### Improve risk-return profile using Russell 10-year forecasts

Given the correlation and volatility profile, high-yield bonds can be a useful diversification tool in portfolios. Russell's long term capital market forecasts across all asset classes over the next ten years are lower than we have experienced in the past. However, our return expectation for high-yield bonds is better than that of investment-grade bonds. For instance, Russell's Strategic Planning Assumptions for the 10-year horizon (as of December 31, 2011) place high-yield bond returns at 5.7% which is higher than the return expectations for investment-grade bonds at 2.9% and approaching Russell's U.S. equities forecast of 6.7%. Russell also expects high-yield correlations with investment-grade bonds and even with equities to be relatively low. As a result, when combined with investment-grade bonds and equities, high-yield bonds are expected to improve the overall risk-adjusted returns of a portfolio and greatly reduce volatility without diminishing returns.

### Conclusion

If Russell's long term strategic forecasts are correct, over the long term investors will benefit from a strategic allocation to high-yield bonds in their portfolios. High-yield bonds have exhibited very attractive historical returns relative to other major asset classes in multiple time periods. Because of the steady and high income provision, high-yield bonds have also historically produced an equity-like return with a materially lower volatility. In today's low interest rate environment, it is no surprise that high-income-generating asset classes, such as high-yields, are attracting investors' attention.

High yield is a cyclical asset class. Historically, spreads have been strongly correlated with levels of default loss. However, we observe a disconnect between high yield spreads and current default risk levels, creating the potential for further capital gains opportunities. In other words, the current spreads on high yields remain elevated, especially when considering near-term default expectations. Together these conditions suggest that a tightening environment is on the horizon.

High-yield bonds have a limited sensitivity to rising interest rate environments, as those conditions often coincide with economic expansion and spread compression. These



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characteristics are expected to result in high yield exhibiting relatively low correlations with most other asset classes and, very importantly, with investment-grade bonds. Furthermore, high-yield bonds tend to have a negative correlation with U.S. Treasuries, which should generally help the high yield market in a rising rate environment.

In all, given high-yield's risk-return profile, higher return expectation and lower correlation to interest rate changes relative to investment-grade bonds, Russell believes high-yield bonds serve as a useful diversification tool in portfolios, thus improving portfolio efficiency.

#### For more information:

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