An International Take on Bonds

Historically, international bonds have been overlooked by U.S. investors. Deemed too difficult to invest in or not worth the additional risks, international bonds have typically been disregarded in traditional portfolio allocations, which usually consist of U.S. stocks and bonds with a modest allocation to international equities. While demand for U.S. Treasury Bonds remains high despite the substantial dip in long-term yields, many investors are seeking to increase their portfolio yield without significantly affecting their risk profile. The international bond market may be well positioned to meet these needs.

International Bonds: Why Invest?

Though typically absent from U.S. investors' portfolio allocations, government bonds issued outside the United States account for approximately 72% of the global government bond market and international (non – U.S.) corporate bonds represent nearly 52% of the global corporate bond market, respectively[1].

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With respect to the international government bond market, developed markets (as classified by the Bank of International Settlements), account for the vast majority of international government bonds outstanding, over 80%. Developed market treasury bonds are most often denominated in the issuing country currency, and, prior to the European financial crisis, were generally considered to have a low chance of default. With higher coupon rates on average, international treasury bonds have historically provided higher yields when compared to U.S. treasuries.[1]

On the corporate side, approximately 75% of international corporate bonds are issued in G-10 (ex U.S.) developed market currencies. Corporate bonds, regardless of their country of issuance, carry a certain degree of credit risk. Investors are usually compensated for this additional risk, however, in the form of higher yields.[1]

Diversification Benefits

Historically, international bonds have demonstrated a relatively low correlation with the domestic and global equity marketplace, as well as with domestic fixed income investments (see table on following page). Based on the findings, the potential long term diversification effects of including international bonds in a U.S. investment portfolio could be substantial, and are worth further investigation. International bonds also offer additional diversification within a bond-only allocation, reducing exposure to market variations of a single currency or issuer.

[1] S&P Indices calculations based on data from Bank of International Settlements, as of June 30, 2011.

International bond market returns are inversely correlated with the movements of the U.S. dollar.

Exhibit 1: Risk and Return Profile : Selected Domestic and International Asset Classes

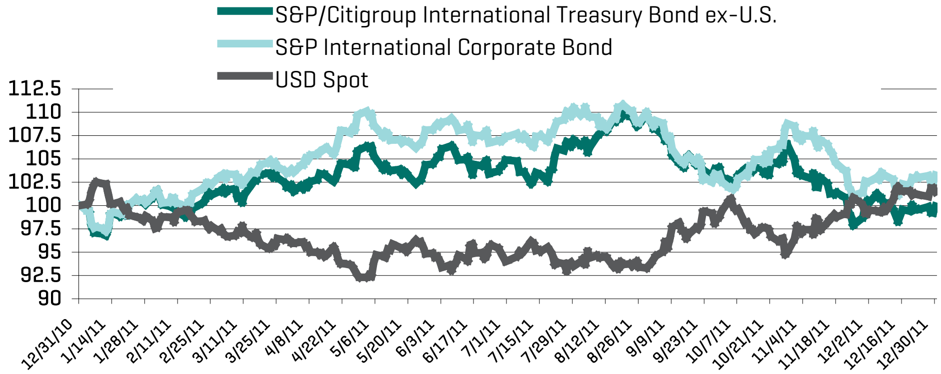
Jan 2002 to Dec 2011	S&P International Corporate Bond Index	S&P/Citigroup International Treasury Bond Ex-U.S. Index	S&P 500 TR Index	Global BMI (Ex-U.S.) Index	S&P/ BGCantor U.S. Treasury Bond Index	S&P/ BGCantor U.S. Treasury Bill Index
Annualized Return	8.27%	8.16%	2.92%	7.43%	5.14%	1.97%
Standard Deviation	10.2%	9.7%	15.9%	19.5%	4.2%	0.5%
Risk Ratio	0.81	0.84	0.18	0.38	1.23	3.88
Maximum Drawdown	-18.1%	-13.6%	-50.9%	-57.8%	-3.9%	0.0%
Correlation Matrix	**S&P International Corporate Bond Index**	**S&P/Citigroup International Treasury Bond Ex-U.S. Index**	**S&P 500 TR Index**	**Global BMI (Ex-U.S.) Index**	**S&P/ BGCantor U.S. Treasury Bond Index**	**S&P/ BGCantor U.S. Treasury Bill Index**
Int'l Corp Bonds	1	0.93	0.34	0.55	0.32	-0.04
Int'l Treasuries		1	0.22	0.42	0.47	0.04
U.S. Stocks			1	0.89	-0.33	-0.08
Int'l Stocks				1	-0.26	-0.05
U.S. Treasuries					1	0.12
U.S. T Bills						1

Risk ratio is defined as annualized return divided by standard deviation. Maximum drawdown is defined as maximum loss from a market peak to a market bottom during the sampled period. Source: Standard & Poor's. Data as of December 30, 2011. Charts and tables are provided for illustrative purposes. This table may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Opportunity to Manage Dollar Risk

International bonds offer an additional way to diversify portfolio returns or gain currency exposure. A weakening U.S. dollar adds to total return after currency translation, while a strengthening U.S. dollar reduces total return after the effects of currency translation. The graph below shows that international bond markets are inversely correlated with the movements of the U.S. dollar, as well as the fact that a high degree of the variance in international bond returns is due to currency movement.

Exhibit 2: Relative Performance of International Bonds and the U.S. Dollar



Source: Standard & Poor's. Data as of December 30, 2011. Charts and tables are provided for illustrative purposes. This table may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

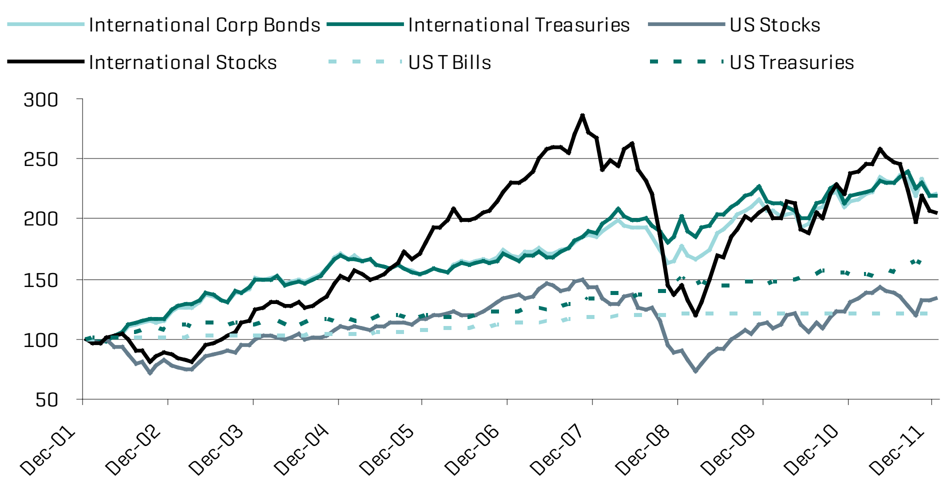
Benchmarking International Bonds

The S&P/Citigroup International Treasury Bond Ex-U.S. Index Series is designed to serve the investment community's need for an investable benchmark representing the international treasury bond market. The series includes a broad index representing treasury bonds issued by 19 developed nations (as classified by the Bank for International Settlements (BIS) in its international debt securities statistics), and a short-term subset including bonds with maturities between one and three years.

The S&P International Corporate Bond Index is an investable index of non-U.S. Dollar corporate bonds issued by non-U.S. companies.

The S&P International Corporate Bond Index is an investable index of non-U.S. Dollar corporate bonds issued by non-U.S. companies. The index seeks to measure the performance of investment-grade corporate bonds issued in G10 currencies (excluding U.S. dollar): Australia Dollar (A$), British Pound (£), Canadian Dollar (C$), Danish Krone (DKr), Euro (€), Japanese Yen (¥), New Zealand Dollar (NZ$), Norwegian Krone (NOK), Swedish Krona (SEK), and Swiss Franc (SFr).

Exhibit 3: Growth of International Bonds and Other Selected Asset Classes



Source: Standard & Poor's. Data as of December 30, 2011. Charts and tables are provided for illustrative purposes. This table may reflect hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Investment Risk

Although international treasury and investment-grade corporate bonds of developed countries are generally of high quality, they do carry the following risks:

Currency Risk – For U.S. investors, international bonds issued in foreign currencies have currency risk. If the U.S. Dollar strengthens against the currency in which a particular bond is denominated, the return on that bond for a U.S. investor will suffer.

Liquidity Risk – From a U.S. investor's perspective, international treasury bonds are less liquid than U.S. Treasuries. In times of market uncertainty, it may be difficult or costly for investors to exit a position. The same can be said for international corporate bonds versus U.S. issued corporate debt.

Rating Risk – The price of a treasury bond may be adversely affected by downgrades to the issuing country's debt ratings. The risk of a ratings downgrade has increased due to the recent global recession, with many countries running very large deficits. Corporate bonds carry the same risk to their price with respect to a ratings downgrade.

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Credit Risk – While rare for developed market sovereigns, the chance of a country defaulting on its outstanding debt does exist. The perceived level of credit risk in the treasury bonds of certain countries, including Greece, Portugal, Italy, and Spain, has increased this year. This shift in investor sentiment is expressed in the increased yields of the treasury bonds of those countries versus the yield for other Euro-denominated treasury bonds such as Germany and France. Credit risk is always inherent in the corporate bond market.

Interest Rate Risk – International bonds are susceptible to changes in market interest rates. This risk is especially acute for longer-term bonds with much higher duration.

Conclusion

International bonds, as an asset class, can serve as an additional diversification tool for investors looking to broaden their mix of assets. With low correlations to the asset classes typically held in a U.S. investor's portfolio and historically higher average yields than U.S. Treasuries, international bonds can be an attractive option. International bonds could also add currency exposure to a portfolio, a fact which should be considered when making an investment decision.

Exhibit 4: ETFs Linked to S&P International Fixed Income Indices

Index	ETF	Ticker
S&P/Citigroup International Treasury Bond Ex-U.S. Index	iShares S&P/Citigroup International Treasury Bond Fund	IGOV
S&P/Citigroup International Treasury Bond Ex-U.S. 1-3 Year	iShares S&P/Citigroup 1-3 Year International Treasury Bond Fund	ISHG
S&P International Corporate Bond	PowerShares International Corporate Bond Portfolio	PICB

Additional Resources

Performance Disclosure

The inception date for the S&P/BGCantor U.S. Treasury Bond and S&P/BGCantor U.S. Treasury Bill Indices was March 24, 2010 at the market close. All information presented prior to the index inception date is back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at www.spindices.com.

The inception date for the S&P/Citigroup International Treasury Bond Ex-U.S. Index is October 31, 2008 at the market close. All information presented prior to the index inception date is back-tested. Back-tested performance is not actual performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. Complete index methodology details are available at www.spindices.com.

The inception date for the S&P International Corporate Bond Index is May 21, 2010 at the market close. The index has not been in existence prior to that date. The back-test period used in this document begins July 31, 2001 at the market close and ends May 21, 2010. Two types of methodologies were used during the backtest period. The first backtest period used in this presentation begins July 31, 2001 at the market close through December 31, 2009 and has been theoretically constructed from the historical returns of the non-public sectors of the following existing Credit Suisse indices: the CS Liquid Eurobond (LEI) sub-indices in Euro and Sterling, the CS Liquid Japanese Corporate Bond Index (LJCI) and the CS Liquid Swiss Index (LSI). Constant weights of 50%, 25%, 20% and 5% were applied to the LEI-Euro, LEI-GBP, LJCI and LSI, respectively, throughout the historical calculation period. The second backtest period runs from December 31, 2009 at market close through April 30, 2010 and has been constructed based on the index methodology that was in effect at inception as described in the methodology document. After December 31, 2009, accrued interest will be included in the index calculations. The actual performance period shown begins May 21, 2010 at the market close. Complete index methodology details are available at www.spindices.com.

Past performance is not an indication of future results. Prospective application of the methodology used to construct the S&P/BGCantor U.S. Treasury Bond Index, S&P/BGCantor U.S. Treasury Bill Index, S&P/Citigroup International Treasury Bond Ex-U.S. Index, and S&P International Corporate Bond Index may not result in performance commensurate with the back-test returns shown. The back-test period does not necessarily correspond to the entire available history of the index. Please refer to the methodology paper for the index, available at www.spdji.com or www.spindices.com for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations. It is not possible to invest directly in an Index.

Another limitation of back-tested hypothetical information is that generally the back-tested calculation is prepared with the benefit of hindsight. Back-tested data reflect the application of the index methodology and selection of index constituents in hindsight. No hypothetical record can completely account for the impact of financial risk in actual trading. For example, there are numerous factors related to the equities (or fixed income, or commodities) markets in general which cannot be, and have not been accounted for in the preparation of the index information set forth, all of which can affect actual performance.

The index returns shown do not represent the results of actual trading of investor assets. S&P/Dow Jones Indices LLC maintains the indices and calculates the index levels and performance shown or discussed, but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor would pay to purchase the securities they represent. The imposition of these fees and charges would cause actual and back-tested performance to be lower than the performance shown. In a simple example, if an index returned 10% on a US $100,000 investment for a 12-month period (or US$ 10,000) and an actual asset-based fee of 1.5% were imposed at the end of the period on the investment plus accrued interest (or US$ 1,650), the net return would be 8.35% (or US$ 8,350) for the year. Over 3 years, an annual 1.5% fee taken at year end with an assumed 10% return per year would result in a cumulative gross return of 33.10%, a total fee of US$ 5,375, and a cumulative net return of 27.2% (or US$ 27,200).

Disclaimer

It is not possible to invest directly in an index. Exposure to an asset class represented by an index is available through investable instruments based on that index. S&P Dow Jones Indices does not sponsor, endorse, sell, promote or manage any investment fund or other vehicle that is offered by third parties and that seeks to provide an investment return based on the returns of any S&P Dow Jones Indices index. There is no assurance that investment products based on the index will accurately track index performance or provide positive investment returns. S&P