

### World Stock and Bond Markets and Portfolio Diversity

How diversified is your investment portfolio? How does it compare to the diversity of the global capital markets? In order to facilitate this comparison, the *Asset Allocation Advisor* compiled the following table of the values of the world's stock and bond markets.<sup>1</sup>

The most striking observation one can make from the table is the sheer size of the markets. The world's stock and bond markets in aggregate have a market value in U.S. dollar terms of more than \$125 trillion, or approximately two times the value of the world's economic output, estimated at approximately \$61 trillion in 2008. It is also interesting to note that the world bond market exceeds the world stock market in size by a factor of nearly 2 to 1.

U.S. equities account for just less than one-third of the global stock market value despite the fact that U.S. economic output accounts for less than one-fourth of global output. U.S. bonds account for a somewhat larger portion of the global bond market at nearly 38%.

Values of the World Stock and Bond Markets, 2009  
In equivalent U.S. dollars, numbers in billions

market	Stocks <sup>2</sup>		Bonds <sup>3</sup>	
U.S.	\$14,281	32.3%	\$31,172	37.9%
euro area	6,506	14.7%	23,611	28.7%
China (incl Hong Kong, excl Taiwan)	4,944	11.2%	2,357	2.9%
Japan	3,508	7.9%	10,675	13.0%
UK	2,614	5.9%	4,010	4.9%
Canada	1,568	3.5%	1,512	1.8%
Australia	1,188	2.7%	1,073	1.3%
India	1,187	2.7%	489	0.6%
Brazil	1,173	2.7%	1,010	1.2%
Switzerland	1,034	2.3%	668	0.8%
Nordic area (Norway, Sweden, Denmark, Baltic countries and Iceland)	1,004	2.3%	1,653	2.0%
South Korea	807	1.8%	913	1.1%
South Africa	709	1.6%	121	0.1%
Taiwan	594	1.3%	12	0.0%
Singapore	445	1.0%	150	0.2%
Russia	357	0.8%	135	0.2%
Mexico	308	0.7%	392	0.5%
Malaysia	261	0.6%	221	0.3%
Other	1,734	3.9%	2,053	2.5%
Total	\$44,223	100.0%	\$82,226	100.0%
Percent of total stocks & bonds	35.0%		65.0%	
Total stock & bond markets			\$126,449	

Investors have no reason to match the diversity of the global capital markets in their portfolios just for diversity's sake. Allocation decisions should be made on the basis of which capital

market instruments will contribute most efficiently to total portfolio return and risk and not on the basis of trying to replicate relative market values. Nevertheless, the size and diversity of the world's stock and bond markets is an indication that opportunities for more efficient portfolio diversification may be available to those whose investment options span the global markets. Investors who limit themselves to a domestic market or to a limited segment of the global market are likely losing out on opportunities for better return/risk performance.

We also provide the following table on the components of the U.S. bond market, data courtesy of the Securities Industry and Financial Markets Association.<sup>4</sup>

U.S. Bond Market Debt Outstanding<sup>5</sup>  
As of 30 June 2009, dollars in billions

\$6,927.8	U.S. Treasury (marketable securities out of a total debt of \$12 trillion, \$7.5 of which is public)
2,972.4	Agencies of the U.S.
2,726.8	State & Municipal
6,778.4	Corporate
3,430.3	Money Market
8,948.7	Mortgage-backed
2,533.6	Asset-backed
\$34,318.0	Total

The single largest segment of the U.S. bond market, in terms of outstanding and marketable debt, is the mortgage-backed bond market. This segment alone is larger than any of the world's stock markets, except the U.S. stock market. Although the sub-prime portion of the mortgage-backed bond market is small—variously estimated at between \$500 billion to \$1.4 trillion—the fact that it shook investor confidence in an asset class of its size makes the impact of the sub-prime crisis more understandable.

Just as investors need not necessarily mimic the global diversification of the equity and bond markets in their portfolios, they also need not mimic the diversification of the U.S. bond market in the domestic bond portion of their portfolios. Once again, the critical question is which asset classes will contribute most efficiently to the return and risk characteristics of their portfolios. This is an issue to be decided on the basis of expected returns, risks, and correlations, not on relative asset class market values.

Although investors may not include all of the global stock and bond or U.S. bond asset classes in their portfolios, all of these asset classes (and others such as real estate and commodities, to name just two) should be under consideration. They should be in the universe of possible investments, and the asset allocation/portfolio management process should evaluate the contributions which they could potentially make to portfolio return and risk performance. Optimal portfolios need a broad range of investment options. A limited range is imprudent and may result in lower future returns and/or higher return volatility.

Albert J. Brenner, CFA  
November 15, 2009

<sup>1</sup> Careful readers will note that stock market values are based on market capitalization while bond market values are based on debt outstanding. Values for the stock markets, therefore, are true market values, whereas values for the bond markets are essentially book values and do not reflect the market values of the outstanding bonds. Since global interest rates generally are near to historic low levels, it would not be unreasonable to estimate that the market value of global debt is at least equal to, if not greater than, the book value of the debt. Readers should also note that stock market values are generally as of 30 September 2009 while bond values are as of 31 March 2009, both being the most recent data available at the level of detail required for this compilation—see notes 2 and 3.

<sup>2</sup> Stock market capitalization data is as of 30 September 2009 from the World Federation of Exchanges (WFE) for all areas except for Russia, [www.world-exchanges.org/statistics/ytd-monthly](http://www.world-exchanges.org/statistics/ytd-monthly). Data for the Russian stock market is as of 31 March 2009 and is from MICEX, Moscow Interbank Currency Exchange, the largest stock exchange in Russia and the Commonwealth of Independent States. MICEX achieved full membership status in the WFE in October 2009.

<sup>3</sup> Bond market data is as of 31 March 2009 and is from the Bank for International Settlements.

<sup>4</sup> Domestic bond market data provided by the Securities Industry and Financial Markets Association (SIFMA) is not directly comparable to the data provided by The Bank for International Settlements (BIS). BIS reports outstanding debt for nations by government, financial institutions, and corporate issuers for both domestic and international issues. The total U.S. debt outstanding as of 31 March 2009 was \$31.2 trillion according to BIS, compared to \$34.2 trillion according to SIFMA.

<sup>5</sup> As reported by the Securities Industry and Financial Markets Association (SIFMA), [www.sifma.org/uploadedFiles/Reserach/Statistics/SIFMA\\_USBondMarketOutstanding.pdf](http://www.sifma.org/uploadedFiles/Reserach/Statistics/SIFMA_USBondMarketOutstanding.pdf)