

FIXED INCOME 101 | Asia

A Closer Look at Pan Asian Fixed Income

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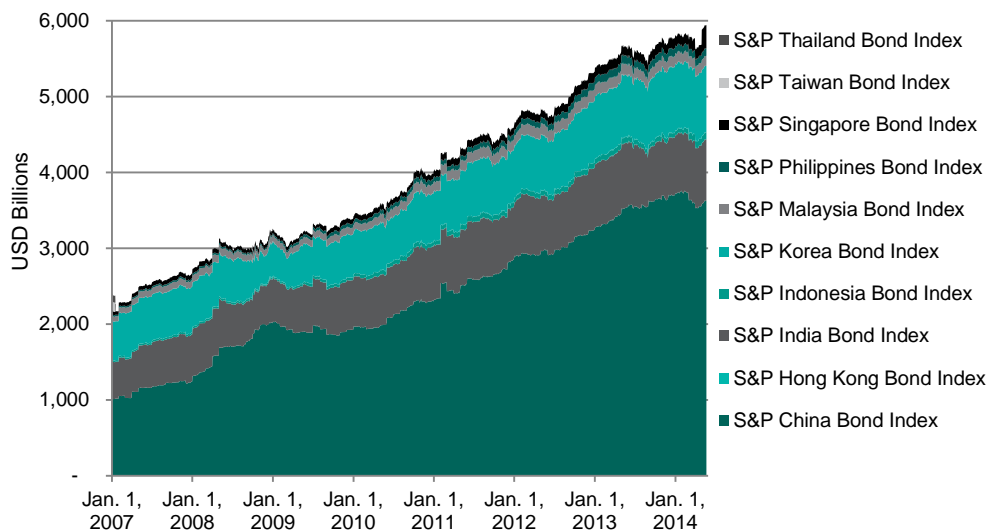
Fixed income exchange-traded funds (ETFs) currently comprise USD 385 billion in assets, globally, 15% of the total ETF universe. Fixed income ETFs recorded USD 26.5 billion of asset inflows year-to-date (YTD) through April 2014, 40% of ETF inflows, worldwide. The increase in assets may be an indication that there is strong investor demand for fixed income ETF products. Similarly, positive inflow YTD was also observed in Asian fixed income ETFs; which currently represent USD 9 billion in assets.

While the current market penetration of Asian fixed income ETFs is relatively low, more expansive product offerings are anticipated. Product diversity is certainly one of the keys to the development of this part of the fixed income universe.

In this paper, we examine the Pan Asian bond market and identify its key characteristics, in order to increase the transparency and investor understanding of the market. The **S&P Pan Asia Bond Index** measures the performance of local-currency-denominated bond markets in China, Hong Kong, India, Indonesia, Korea, Singapore, Malaysia, Philippines, Taiwan and Thailand. The index is denominated in USD and aggregates the returns of the 10 countries tracked in the region. We first look at the size of the markets the indices track.

Exhibit 1 demonstrates the total market cap (in USD) tracked by the index, which increased nearly 60% since the index was first valued on December 29, 2006. While China doubled its size and continuously maintained its market share dominance during the period, bond markets in Indonesia and the Philippines have expanded more than fourfold and threefold, respectively, over the same time.

Exhibit 1: Market Cap Tracked by the S&P Pan Asia Bond Index

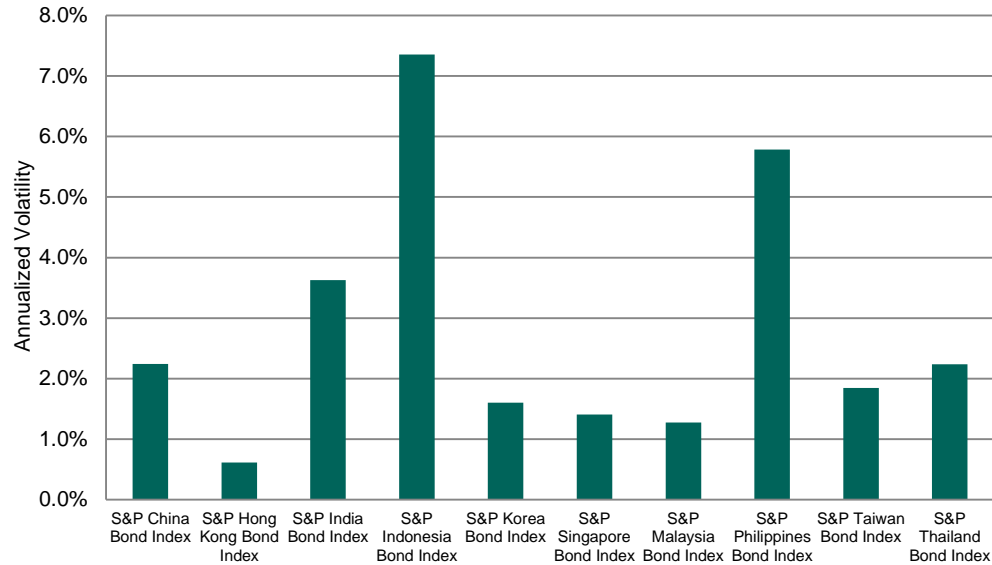


Source: S&P Dow Jones Indices. Data as of May 30, 2014. Charts are provided for illustrative purposes. This chart may reflect hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance. Past performance is no guarantee of future results.

Next, we look at the volatilities of the country-level S&P Pan Asia Bond Indices. Exhibit 2 shows the five-year annualized volatility of the 10 country indices in the S&P Pan Asia Bond Index Series, which are denominated in their respective local currencies. Excluding the relatively high volatilities in Indonesia and Philippines, most countries have an annualized volatility around the 2% level.

Exhibit 2: Five-Year Annualized Volatilities

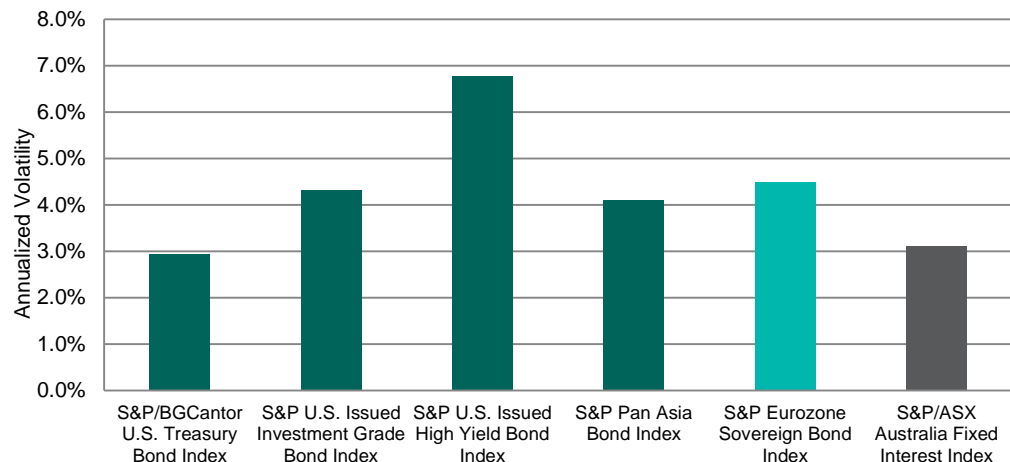
The bond price volatility in Asia is not necessarily higher than other major international bond markets.



Source: S&P Dow Jones Indices. Data as of May 30, 2014. Charts are provided for illustrative purposes. This chart may reflect hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance. Past performance is no guarantee of future results.

In Exhibit 3, we compare the five-year annualized volatility of the Pan Asia bond market with other major bond markets, such as the U.S. Treasury, U.S. corporate, Eurozone sovereign and Australian bond markets. For this comparison, we use the S&P Pan Asia Bond Index, which is denominated in USD. Of note, the bond price volatility in Asia (even accounting for foreign currency fluctuations) is not necessarily higher than the other major markets.

Exhibit 3: Comparison of Major Bond Markets' Annualized Volatility



Source: S&P Dow Jones Indices. Data as of May 30, 2014. Charts are provided for illustrative purposes. This chart may reflect hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance. Past performance is no guarantee of future results. The light teal bar represents an index calculated in EUR and light grey bar represents an index calculated in AUD.

Exhibit 4 shows the country correlation matrix for the S&P Asia Bond Index countries, which demonstrates that the correlation is generally low among the 10 countries. It is interesting to note that, despite the fact that China contributes a significant weight to the index; the Chinese bond market has a low correlation with the other nine markets in the index.

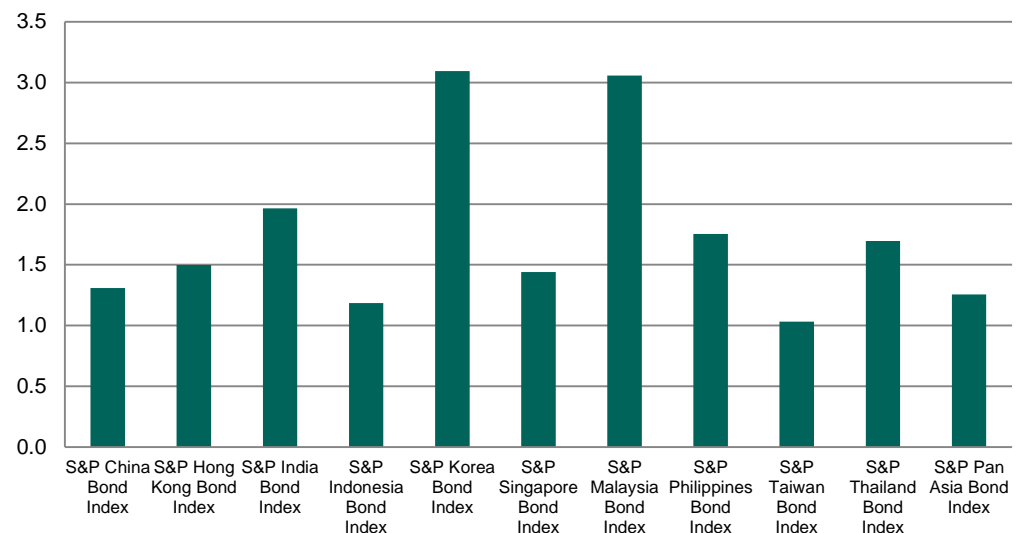
Exhibit 4: Country Correlation Matrix										
Country	China	Hong Kong	India	Indonesia	Korea	Singapore	Malaysia	Philippines	Taiwan	Thailand
China	1.000	0.115	0.198	0.182	0.191	0.192	0.202	0.175	0.234	0.240
Hong Kong	0.115	1.000	0.371	0.257	0.524	0.698	0.408	0.179	0.380	0.457
India	0.198	0.371	1.000	0.298	0.287	0.178	0.402	0.110	0.283	0.340
Indonesia	0.182	0.257	0.298	1.000	0.363	0.498	0.577	0.475	0.183	0.189
Korea	0.191	0.524	0.287	0.363	1.000	0.511	0.545	0.376	0.240	0.508
Singapore	0.192	0.698	0.178	0.498	0.511	1.000	0.623	0.337	0.493	0.462
Malaysia	0.202	0.408	0.402	0.577	0.545	0.623	1.000	0.247	0.361	0.529
Philippines	0.175	0.179	0.110	0.475	0.376	0.337	0.247	1.000	-0.093	0.148
Taiwan	0.234	0.380	0.283	0.183	0.240	0.493	0.361	-0.093	1.000	0.413
Thailand	0.240	0.457	0.340	0.189	0.508	0.462	0.529	0.148	0.413	1.000

Source: S&P Dow Jones Indices. Data as of May 30, 2014. Charts are provided for illustrative purposes. This chart may reflect hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance. Past performance is no guarantee of future results.

Finally, we look at the five-year, risk-adjusted returns of the 10 countries in the S&P Pan Asia Bond Index. It is noted that, while the overall index delivered a five-year, risk-adjusted return of 1.258, Korea and Malaysia were clearly the outperformers, with risk-adjusted returns of 3.094 and 3.058, respectively.

While the S&P Pan Asia Bond Index delivered a five-year, risk-adjusted return of 1.258, Korea and Malaysia were clearly the outperformers, with 3.094 and 3.058, respectively.

Exhibit 5: Five-Year Risk-Adjusted Returns of Country Indices in the S&P Pan Asia Bond Index



Source: S&P Dow Jones Indices. Data as of May 30, 2014. Charts are provided for illustrative purposes. This chart may reflect hypothetical historical performance. Please see the Performance Disclosures at the end of this document for more information regarding the inherent limitations associated with back-tested performance. Past performance is no guarantee of future results.

In conclusion, the S&P Pan Asia Bond Index is designed to provide a broad benchmark for the local-currency-denominated bond market. The local currency bond market has expanded rapidly in recent years, notably in Indonesia and the Philippines. The volatility of the S&P Pan Asia Bond Index is on par with other major bond markets worldwide, even when foreign currency fluctuations are taken into account. The low correlation to China's bond market among the 10 countries in the Pan Asia fixed income market further provides the value of country diversification. Looking at risk-adjusted returns, the S&P Korea Bond Index and the S&P Malaysia Bond Index have outperformed other countries over a five-year horizon.

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The S&P Pan Asia Bond Index and country subindices (the "Index") were launched on March, 12, 2014. All information presented prior to the launch 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.spdji.com. It is not possible to invest directly in an index.

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