

THE INTEGRAL ROLE OF ESG FACTORS IN EMERGING MARKETS INVESTING

By Phil Torres, Director of Sovereign and Emerging Markets Research

Aegon Asset Management US (Aegon AM US) believes environmental, social and governance (ESG) issues matter. As an active fixed income manager, we factor ESG considerations into our analytical framework in three distinct ways—integration, exclusion and engagement. To affirm this belief, we are a signatory to the United Nations-backed Principles for Responsible Investment.

The ESG acronym has grown in market importance during the last few years. For the emerging markets investment team, the concepts behind the acronym have been a continuously evolving part of our investment methodology for more than two decades. Of course, we didn't call it ESG back then, but have always considered it a critical part of our investment process. As the data, academic research and our learning advance, we continue to evolve our ESG approach to maximize its portfolio impact. We have the benefit of a dedicated Responsible Investment team, as well as research and portfolio management teams who are well-versed at investing with ESG factors as decision drivers.

Integration

Our approach to ESG is deeply rooted in knowing the details of each nation we examine, and the specific threats and opportunities ESG can impart on the willingness and ability of a country to pay its bond holders. Specific to sovereigns, we forecast economic growth and debt load after considering traditional economic variables, as well as ESG influences. Each country is relatively unique in culture and structure. While investors can adapt reasonably well to a given country's prevailing ESG fundamentals, we are interested in understanding ESG in a dynamic way—i.e., how well the ESG baseline scenario may absorb shocks, and subsequently, how those shocks affect the credit in question.

Exclusion

For clients who wish to go beyond our customary use of ESG integration techniques, we also offer exclusion lists when desired. Aegon AM's Responsible Investment team, which was established in 2010, has developed a proprietary list of excluded issuers that is updated annually and available for client mandates. Use of the exclusion list, which can be tailored to each client, prohibits investment in issuers with certain undesirable ESG characteristics, such as corporates associated with controversial weapons or thermal coal and sovereign countries with a history of social repression.

Engagement

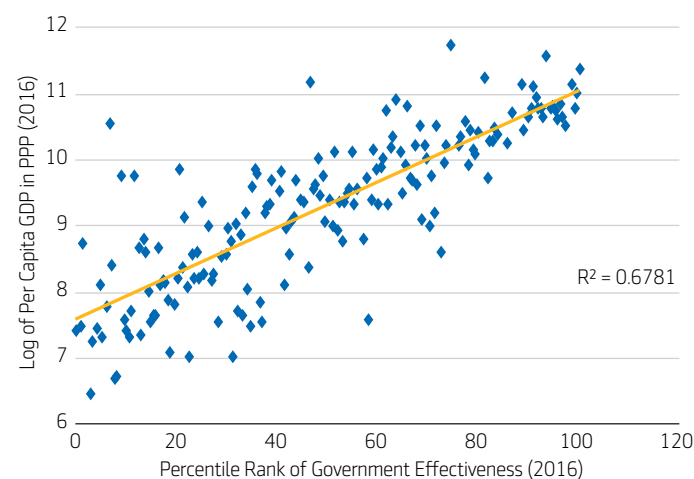
Aegon AM's Responsible Investment team is also dedicated to engagement with issuers. In these instances, we may leverage our financial stake to attempt to affect ESG reform. These engagements take place when our clients' financial interests and ESG interests are aligned to achieve mutually beneficial outcomes

Introducing our sovereign ESG integration research method

Due to the untimely publication of most ESG data (annual, with a lag), they alone are not terribly useful in valuing securities. Instead, we utilize a mix of public and proprietary signals that track various ESG factors to help build timely country forecasts. We have a methodology that is based on economic and political development literature, as well as our own experience.

Because the correlation is high but the direction of causality between ESG and development is uncertain—the more developed a country the higher the ESG and vice versa in a circular feedback loop, as Exhibit 1 illustrates using per capita GDP (purchasing power parity terms) as a proxy for a country's level of development—we specifically designed a process that separates the two in our estimation of fixed income fair value.

Exhibit 1: Governance and wealth



Source: IMF and World Bank. Note: Each dot represents a country

We want to understand what the spread value is of ESG and traditional economic variables on fixed income pricing; it is often the break in the correlation between the two that leads to large fixed income price changes and opportunities.

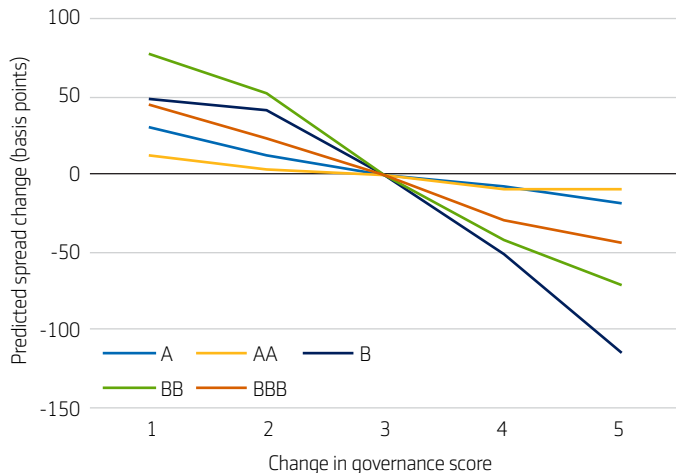
Brief overview of ESG within our sovereign fixed income fair value methodology

Environmental: We track how dependent an economy is on energy, specifically non-renewable energy. The historical correlation between traditional energy economies and weak governance is high. We also track droughts and hurricanes because of their potential impact on growth. The emerging threat from rising sea levels may be existential, but we think of it, for the moment, as loss of GDP potential due to limited historical analogs.

Social: Public perceptions of civilian representation in government, as well as the overall standard of living, can affect political stability and growth. We track historical experience with violence and related security challenges because of their impact on consumer activity and fixed asset investment.

Governance: Institutional strength can form the foundation for successful policy implementation and is likely to be the basis for private sector economic activity. In other words, strong institutions tend to be highly correlated with above average growth and debt sustainability. Further, we measure and estimate the strength of governance by its ability to absorb environmental and social shocks, and any subsequent knocks to GDP, for example.

Exhibit 2: How governance changes can affect fair value spreads



Source: Aegon AM US, As of Dec 2017. **Sample for illustrative purposes only.** Predicted spread change and governance scores are based on regression analysis and internal ratings methodology of 10-year sovereign bonds of 25 Emerging Markets countries selected by Aegon AM.

Focus on governance

We use a variety of analytical tools to predict a fair value for a given country's bond spreads, using traditional fundamental inputs alongside items that are often considered part of an ESG framework. Utilizing our techniques for linking credit fundamentals to bond spreads, we seek to isolate the impact of any individual fundamental factor.

To illustrate our approach in action we isolated the effects that varying governance scores can have on credit spreads. As our results in Exhibit 2 show, we find that for highly-rated credits (i.e. BBB or better), changing governance scores are associated with only modest fair-value spread changes. For lower-quality credits, however, spreads can respond with noticeable asymmetry to changes in governance scores.

Within this framework, we are able to estimate the expected effects on spread from an observed, or predicted, change in governance. Furthermore, these techniques can be replicated across other ESG factors, to generate a view on spreads and valuation.

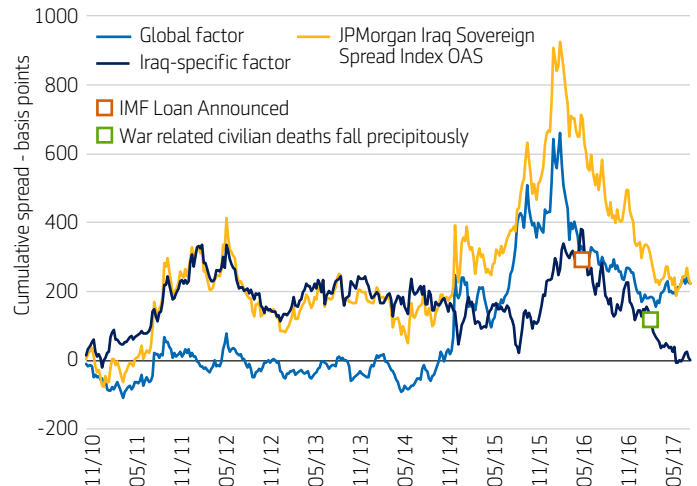
To understand in a rigorous way how any particular credit fundamental may affect spreads, this approach offers a starting framework, based on an average estimated spread change across a generic credit rating category. It's possible to increase the specificity, and focus on an actual credit.

Governance case study: Iraq

Like all credits we value, we exhaustively assessed Iraq across many metrics. Each flowed into our fair value spread estimation methodology as a direct line item (like governance scores) or a factor that affects one (like the effect war has on GDP). Drawing on the research explained in the preceding section, we predicted the improving social and governance scores would, all else equal, lead to a material narrowing of Iraq's fair value credit spreads. Here's how we approached it.

We know Iraq suffers from significant governance and institutional issues, and we integrated this into our baseline assessment. In mid-2017, we expected the International Monetary Fund would renew its relationship with Iraq, which would deepen the IMF's commitment to engage with the political leadership during turbulent governance periods. Clearly this would be a boost for country governance. Using the methods described above, we adjusted the governance portion of the credit evaluation to account for the anticipated improvement. Given our understanding of the potential credit spread change for a governance improvement for an overall weak credit like Iraq, we thought that event could cause a meaningful repricing of Iraq's bonds due to changing governance scores.

Exhibit 3: Decomposing Iraqi spreads



Source: Bloomberg, Aegon AM US, as of 2/9/2018. Note: all series display cumulative spread changes in basis points. Global factor: the first principal component of the spread changes from a group of six credit oil producing peers. Iraq-specific factor: Credit spread change in Iraqi bonds unexplained by the Global factor

Using the IMF's early-2016 engagement with the country as an historical corollary, we had a prior episode with a similar setting around an Iraq/IMF agreement. At that time, Iraq's credit spreads responded favorably to the IMF loan package (orange box, Exhibit 3). We were interested in knowing how much of the spread compression may have been due to governance changes and how much may have been caused by other factors. *(Continued on next page)*

During that rally in Iraqi spreads, oil credits broadly performed well, high-beta credit performed well, and the fading war with ISIS contributed positively. Exhibit 3 illustrates our effort to isolate these forces, which we characterized as a global factor and an Iraq-specific factor. To accomplish this, we employ a statistical process, called principal component analysis (PCA), on the weekly credit spread changes of six, low credit-quality oil producing peers countries, and generate a variable called the common global factor (light blue line, Exhibit 3). Here, the PCA technique can reveal the degree to which a set of variables—oil prices, credit beta, etc.—can explain some variance in Iraqi spreads. We determine the unexplained weekly spread change in Iraq's bonds is due to Iraq-specific issues (dark blue line, exhibit 3), such as the IMF agreement and the war. Our inference is that the Iraq-specific factor's spread changes align with how our generalized approach would predict—a poorly-rated credit with positive governance changes can be expected to see spreads improve.

The deeper learning from the research summarized above informs our analysts and portfolio managers as to which ESG factors are likely to matter and how they may affect client portfolios.

Conclusion

Aegon AM US uses a robust, comprehensive research methodology when evaluating fixed income investment opportunities. We've always looked across multiple factors to reach a valuation conclusion, including credit-relevant issues that reflect our values: having a clear sense of purpose, being a responsible company, and investing accordingly. Now, as these factors are being clearly delineated in the marketplace as ESG factors, we believe we are well-positioned to leverage our established research process in ways to learn and grow with the evolving ESG landscape.

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