Aberdeen Standard Investments

# Our ESG approach to emerging market sovereign bond investing

Integrating environmental, social, governance and political (ESGP) factors into emerging market analysis

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“When used as part of a wider investment process, our ESGP framework may help to explain differences in sovereign credit spreads”

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# Why ESGP for emerging markets?

A country's creditworthiness is fundamentally dependent on its competitiveness and ability to sustain economic growth over the long term. To assess this, investors traditionally look at a range of macroeconomic variables, including public debt, inflation, fiscal deficits and current account balances. Along with political and governance factors, these are determinants of economic development and elements of the country's willingness and ability to repay its debt.

In addition, the ability to sustain economic growth depends on socio-economic factors, such as the level of inequalities, education, health systems, the quality of infrastructure and the environment, as well as resource constraints.

Institutional weaknesses and social issues can amplify macroeconomic fragilities. As such, we believe that environmental, social, governance and political (ESGP) factors are useful in assessing sovereign creditworthiness in a more holistic manner.

ESGP factors can act as either catalysts or impediments to economic development. Socio-economic factors are often intertwined and mutually reinforcing. Poor education and health systems can increase inequality and hamper economic growth, which in time can threaten political stability. An unwillingness or difficulty in addressing environmental and social challenges can constitute a major impediment to long-term growth.

In contrast, countries with good ESGP performance should be more resilient to shocks, such as natural disasters, financial crises or geopolitical instability.

We believe that ESGP considerations are potentially even more relevant when looking at emerging markets (EM). Differences in levels of socio-economic development, the degree of political stability or the entrenchment of the rule of law can often vary significantly from one country to another. This has significant implications for sustainable economic growth, competitiveness and the ability to repay debt. Our in-house proprietary ESGP framework, built through collaboration between our Emerging Market Debt (EMD) and Responsible Investment teams, aims to capture these differences.

The ESGP framework rates countries on 20 indicators across the four pillars – environment, social, governance and political. The ESGP scores provide useful information in identifying long-term factors and tendencies that might not be fully factored into sovereign bond spreads. Based on our initial analysis, we believe that the additional consideration of ESGP scores can help investors to mitigate certain risks and enhance returns relative to passive market benchmarks.

# ESGP framework

Our ESGP framework covers 91 countries from the EM universe. The first consideration is indicator selection, which we have tailored specifically to EM. For instance, we look for indicators of institutional stability and governance that have traditionally proven necessary for sustainable development. In total, we use 20 indicators, from which we derive an ESGP score for each country[1].

- Environmental sustainability is a challenging aspect to assess in EM, partly due to the poor availability of data and partly due to the fact that different degrees of industrialisation and development among emerging countries can significantly, and sometimes unfairly, penalise the ESGP score. In our assessment, we covered three important environmental topics in emerging markets, namely air pollution, water quality and availability as well as clean energy, which can be illustrate in our choice of indicators.
- Social indicators are, at the same time, an outcome of past development policies and a catalyst or impediment to future economic development. As such, social indicators are strongly intertwined with governance and political factors. Among the variety of social indicators, we have selected four that are related to the potential for economic development: income and gender inequalities, the quality of infrastructure, access to education and access to basic healthcare.
- Governance indicators assess the quality of governance and the strength of institutions. Here, we look at the strength of the rule of law, government effectiveness, the ease of doing business and the level of transparency of central government budgets. For investors in EM debt, assessing the use of proceeds from bond issues can be challenging. This is where indicators of fiscal transparency such as the Open Budget Index can help assess these risks.
- Political indicators assess government institutions in a dynamic way, looking at the factors that could pose a threat to national security and democracy. Here, we look at the prevalence of corruption in the public sector as it is perceived by citizens, and factors that promote the outbreak of violence and conflicts. Politics is a key aspect for investors as it drives economic policy and growth in EM much more significantly than in developed economies. Along with transparent policy making and sustainable growth comes a greater likelihood of debt repayment.

| Pillar | Weight | Proposed Indicators | Source |
|---|---|---|---|
| Environmental | 15% | PM2.5 Air pollution | World Bank |
| | | Carbon emissions | EDGAR – Emissions Database for Global Atmospheric Research |
| | | Access to safe water (% population) | World Bank |
| Social | 35% | Access to electricity (% population) | World Bank |
| | | Life Expectancy | World Bank |
| | | Quality of infrastructure | Global Competitiveness Index (World Economic Forum) |
| | | Gender inequality index | Human Development Report (UN Development Program) |
| | | GINI Coefficient | CIA Wold Factbook/World Bank |
| | | Mean years of schooling | Human Development Report (UN Development program) |
| | | Infant mortality | World Bank |
| Governance | 25% | Ease of doing business | World Bank |
| | | Voice and Accountability | Worldwide Governance Indicators (World Bank) |
| | | Government Effectiveness | Worldwide Governance Indicators (World Bank) |
| | | Regulatory Quality | Worldwide Governance Indicators (World Bank) |
| | | Rule of law | Worldwide Governance Indicators (World Bank) |
| | | Open Budget Index | International Budget Partnership |
| Political | 25% | Corruption perception | Transparency International |
| | | Political Stability | Worldwide Governance Indicators (World Bank) |
| | | State fragility | Fund for Peace |
| | | Press freedom | Reporters without Borders |

[1] Measurement problems can affect the reliability of aggregated indicators of institutional quality and should be taken into account when assessing institutional differences across countries. For an in-depth discussion of those issues, please refer to: "Measuring Governance", OECD Policy Brief No. 39 by Charles P. Oman and Christiane Arndt (OECD 2010). Therefore, inferences about small changes and differences in indicators across countries should be taken with caution.

For each indicator, we calculate Z-scores, which signal where each country lies relative to the average of that particular indicator.

The Z-scores are then averaged within each of the four dimensions, resulting in a score for each pillar. Finally, our overall ESGP score is calculated as a weighted average of each pillar's score, with weights as follows: environmental 15%, social 35%, governance 25% and political 25%. Combined, the political and governance pillars account for 50% of the overall ESGP score. We believe that these two factors have the greatest impact on a country's ability to sustain its growth and repay its debt.

In addition, political and governance factors can be key catalysts or impediments to the improvement of socio-economic and environmental factors[2]. We have given a bigger weight to the social pillar (35%), given the number of sub-themes taken into account (inclusive growth, infrastructure, health and education) and the increased importance of these factors for long-term growth in EM countries, compared to their developed market counterparts. The ESGP scores are normalised on a scale from 0 to 100, with the worst-performing country receiving a score of 0 and the best-performing country scoring 100, while preserving the distribution of deviations from the mean.

Table 2 below provides an extract from the ESGP framework, displaying the output of our analysis.

| Country | Environmental score | Social score | Governance score | Political score | ESGP score | Direction of Travel |
|---|---|---|---|---|---|---|
| South Korea | 60 | 100 | 99 | 86 | 100 | NEUTRAL |
| Czech Republic | 73 | 97 | 95 | 87 | 99 | NEUTRAL |
| Lithuania | 89 | 88 | 100 | 88 | 99 | POSITIVE |
| Latvia | 90 | 87 | 99 | 82 | 96 | POSITIVE |
| Uruguay | 100 | 74 | 83 | 100 | 92 | NEUTRAL |
| Poland | 70 | 92 | 86 | 80 | 91 | NEUTRAL |
| United Arab Emirates | 49 | 92 | 88 | 82 | 91 | NEGATIVE |
| Chile | 79 | 77 | 96 | 84 | 90 | NEUTRAL |
| Croatia | 83 | 90 | 79 | 74 | 88 | POSITIVE |
| Costa Rica | 93 | 71 | 82 | 88 | 86 | NEUTRAL |
| Georgia | 69 | 76 | 91 | 59 | 80 | POSITIVE |
| Jamaica | 64 | 68 | 75 | 73 | 75 | POSITIVE |
| Oman | 28 | 80 | 68 | 67 | 72 | NEUTRAL |
| Qatar | 10 | 82 | 63 | 75 | 72 | NEUTRAL |
| Kazakhstan | 33 | 83 | 64 | 43 | 65 | NEUTRAL |
| Thailand | 72 | 70 | 70 | 38 | 64 | NEGATIVE |
| Indonesia | 75 | 61 | 69 | 47 | 63 | POSITIVE |
| Mexico | 78 | 66 | 69 | 37 | 63 | NEUTRAL |
| Ecuador | 74 | 67 | 52 | 51 | 61 | POSITIVE |
| Russia | 55 | 79 | 60 | 33 | 61 | NEUTRAL |
| Ukraine | 38 | 81 | 60 | 33 | 60 | POSITIVE |
| Turkey | 60 | 71 | 65 | 29 | 59 | NEGATIVE |
| Paraguay | 99 | 56 | 55 | 47 | 59 | POSITIVE |
| Morocco | 53 | 61 | 61 | 45 | 58 | POSITIVE |
| South Africa | 21 | 44 | 79 | 58 | 57 | NEUTRAL |
| Lebanon | 53 | 74 | 40 | 27 | 51 | NEGATIVE |
| Gabon | 47 | 49 | 34 | 44 | 43 | NEUTRAL |
| Tajikistan | 39 | 64 | 32 | 26 | 42 | NEGATIVE |
| Kenya | 39 | 39 | 59 | 29 | 42 | NEUTRAL |
| Papua New Guinea | 35 | 23 | 52 | 41 | 36 | NEUTRAL |
| Uganda | 17 | 25 | 55 | 28 | 32 | NEGATIVE |
| Ethiopia | 16 | 28 | 37 | 31 | 28 | POSITIVE |
| Iraq | 32 | 60 | 19 | 0 | 27 | NEUTRAL |
| Venezuela | 56 | 57 | 0 | 15 | 26 | NEGATIVE |
| Angola | 29 | 18 | 30 | 36 | 24 | POSITIVE |
| Republic of Congo | 25 | 30 | 21 | 28 | 24 | NEUTRAL |
| Mozambique | 26 | 5 | 42 | 30 | 21 | NEGATIVE |
| Cameroon | 0 | 21 | 30 | 18 | 17 | NEGATIVE |
| Nigeria | 19 | 11 | 38 | 16 | 17 | NEUTRAL |
| Democratic Republic of Congo | 18 | 0 | 15 | 1 | 0 | NEGATIVE |

Source: Aberdeen Standard Investments, extract.
For illustration purposes only, May 2020.
[2] A disaggregated version of the statistical model we developed shows that political and governance factors are the sub-components of the ESGP score that are most strongly associated with sovereign credit spreads.

# The benefits for EMD investing

When used as part of a wider investment process, the ESGP framework may help to explain differences in sovereign credit spreads. Intuitively, we would expect a deterioration in a country's ESGP score to be accompanied by a widening in its credit spreads, as several research papers have found that non-financial factors influence spread movements[4]. Our own empirical research backs up that intuition, suggesting that ESGP can be a useful tool for investing in EMD.

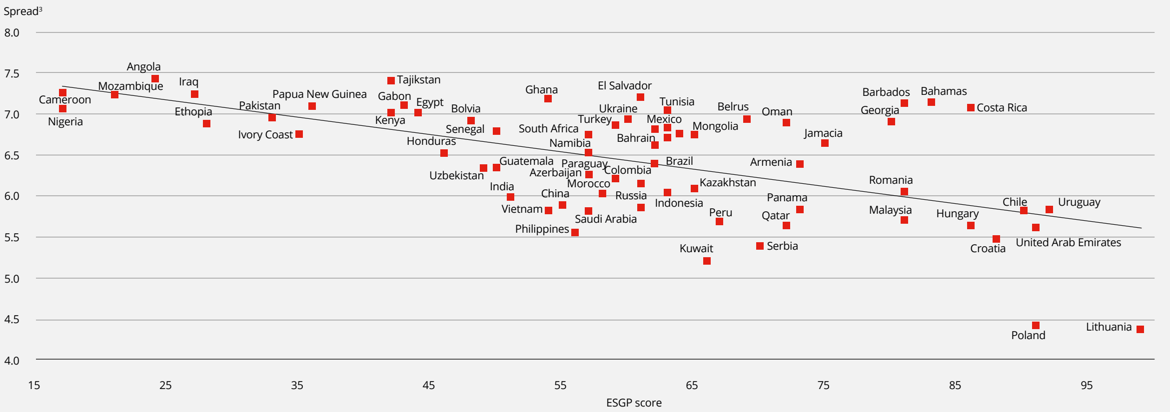
As a first step, we calculate a simple correlation between the ESGP score of a subset of countries in our model and their current index spread[5]. This correlation suggests that, on average, countries with higher ESGP scores appear to have a lower credit spreads than countries with lower ESGP scores, although there is considerable variation around that average.

Next, we assess whether the country is on an improving or deteriorating ESGP trend on the basis of our internal research. Taking into account this direction of travel partly addresses the potential staleness of ESGP data. Many indicators are only available with a lag of one or two years, so they might not reflect recent changes in governments or corruption scandals that could potentially greatly influence institutional quality. Therefore, supplementing the indicators with our internal analysis is critical.

Bearing these two aspects in mind, it is interesting to consider countries that our simple correlation model estimates as cheap on an ESGP basis and that are on a positive trajectory. This will show where ESGP factors may not yet be fully priced in and expected returns might be higher than justified by ESGP risks.

For instance, Jamaica's spreads appear wider than implied by its relatively good ESGP score, the latter reflecting the strength of its institutions. Ongoing reforms of the police and judiciary, as well as the adoption of a more robust fiscal framework, make us confident that the improving trajectory will continue. In addition, efforts are being made to reconfigure the electricity-generation matrix away from oil towards natural gas and an increasing portion of renewables (which could also lead to upgrades in its environmental score).

**Chart 1: ESG score versus spread**




Source: Aberdeen Standard Investments, June 2020. For illustrative purposes only.
[3] Relative to US Treasury yield.

[4] Notably: 'Measuring the effect of government ESG performance on sovereign borrowing cost' by Crifo, Diaye and Oueghlissi (CIRANO Scientific Series, July 2014).
[5] We used as subset the countries in the JPM Emerging Market Bonds Index Global Diversified, excluding Venezuela, Mozambique, Suriname and Belize.

In other cases, the two signals can point in opposite direction. Turkey is such an example; the country appears slightly cheap on the basis of our ESGP model, but is considered to be on a deteriorating trend given its autocratic and corrupt political system. During 2015-2018, President Erdogan used repeated elections and a referendum to tighten his grip on power, and, with limited checks and balances, suppression of dissenters and minorities and tight control over the media, governance and the quality of civil servants and institutions continues to deteriorate. In this case, the apparent cheapness might only express the fact that the expected deterioration of ESGP scores is already in the price.

If required, the ESGP framework could also be tailored to build exclusion criteria, in order to respond to investors' potential concerns on various ESGP issues. A filter could be specified for country selection based on the overall ESGP score or based on different subsets of the score. For instance, it is recognised that institutional failings and the prevalence of corruption are often factors that lead to stunted development and lower social outcomes. This could be a reason to exclude from the investment universe those countries below a certain threshold on the governance and politics dimensions only. However, it should be noted that an element of caution is required around building exclusion criteria, given the potential measurement issues that hinder the data and the difficulties in pinpointing a precise threshold.

# Historical analysis

The ESGP framework highlights some of the challenges that EM are aiming to overcome. Over time, some emerging countries saw changes in their institutional setup that aided their development, while others have been held back due to the lack of, or inappropriate, reform. Regional comparison of ESGP scores over time shows that the best-performing region is Eastern Europe, with the highest average ESGP score, while the worst performing is Africa/ Middle East. EU accession and a movement away from communism have provided an anchor for Eastern European countries, which played a key role in upgrading their institutions. Over the last ten years, the countries that have successfully implemented policies that improved their ESGP score include Romania, Georgia and Latvia, while at the other end of the spectrum lie Venezuela, Lebanon and Nigeria.

## Case Study 1 – Ukraine

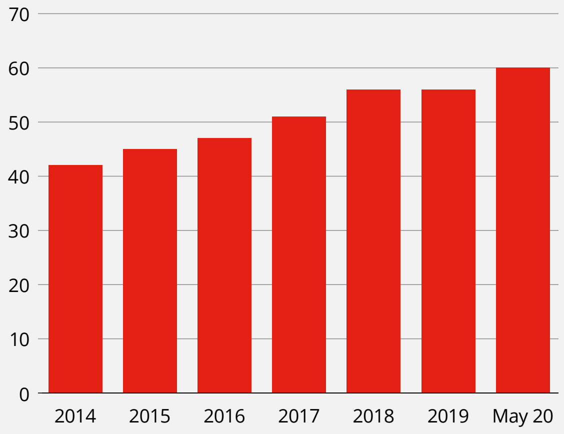
Ukraine has been improving across most ESGP indicators over the past few years, although in an uneven fashion.

Revolutions, high corruption and oligarchic structures have seriously undermined the political pillar in Ukraine. However, things have been improving and reforms have been initiated, leading to a peaceful transition to a new administration in 2019.

The resignation of the central bank governor in July 2020 amid mounting political pressure on the National Bank of Ukraine posed a new challenge to the relationship with the IMF, which continues to support the country through its Stand-By Arrangement program provided that central bank independence is preserved.

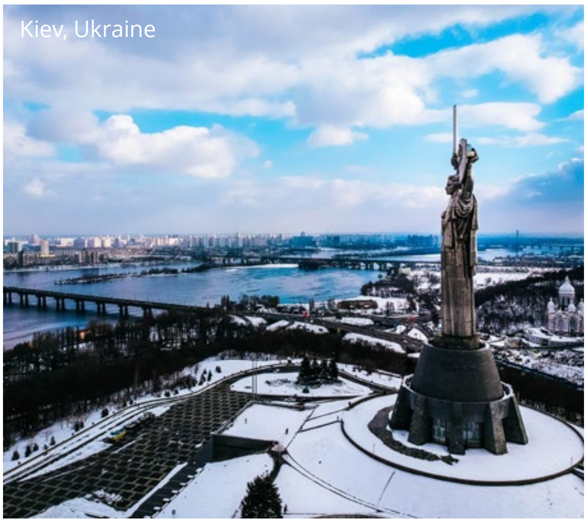
Our positive direction of travel assessment is based on the assumption that the current administration will continue on its structural reform path, strengthening institutions, reducing corruption and improving the judicial system.

**Chart 2: Ukraine's ESGP score chart**




Source: Aberdeen Standard Investments, May 2020.

**Past Performance is not a guide to future results.**



Kiev, Ukraine

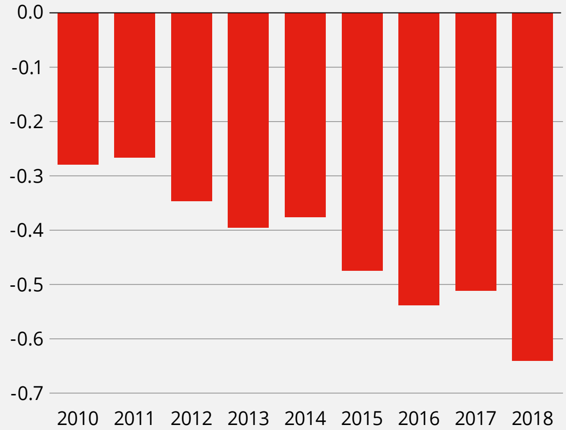
## Case Study 2 – Lebanon

Lebanon has deeply entrenched structural shortcomings and has demonstrated a lack of political will to address these.

Public dissatisfaction with government corruption and incompetence reached elevated levels in 2019/20, with mass protests forcing out two governments in less than a twelve month period.

Financial sector collapse and hyperinflation have increased poverty dramatically, while the government has repeatedly failed to meet IMF requirements for a funded programme, causing a number of officials to resign over the country's response to its 2020 crisis.

**Chart 3: Lebanon's Government Effectiveness Index**




Source: Worldwide Governance Indicators, World Bank as at 31.8.2020. Expressed in units of a standard normal distribution running from approximately -2.5 to 2.5, with higher values corresponding to better governance.

**Past Performance is not a guide to future results.**

# Conclusion

With investor interest in the impact of ESGP issues continuing to grow, demand should increase to have this reflected in investment mandates. We have developed our in-house proprietary ESGP framework to integrate our ESGP research into our portfolios. By doing so, we believe we can complement our existing research and analysis of traditional macroeconomic variables. Since ESGP factors appear to be an important aspect of sovereign creditworthiness, the framework can contribute to clearly identifying potential mispricing and emerging trends.

This is especially true within the EMD universe, where ESGP indicators can vary significantly from country to country, and where their impact on growth and sustainability is often greater. As the examples of Ukraine and Lebanon highlight, improving or deteriorating ESGP factors appear to correlate with sovereign spreads. By looking across a range of 20 measures, we can derive an ESGP score for each country and, from that, a simple ESGP-correlation implied spread for its sovereign debt. The difference between the existing spread and the confidence interval around this implied spread may help to inform investors of the richness or cheapness of the sovereign bonds.

As previously stated, a country's creditworthiness is fundamentally dependent on its competitiveness and ability to sustain its economic growth over the long term. To assess this, investors will traditionally look at a range of macroeconomic variables; however, the ability to sustain economic growth is also very dependent on socio-economic factors. As such, we believe that taking into account ESGP factors could help investors assess sovereign creditworthiness in a more holistic manner. Importantly, our initial analysis suggests that ESGP considerations could be useful in mitigating certain risks, without surrendering the associated performance.

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