

Extra-financial indicators play a key role in the analysis of sovereign debt



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At Edmond de Rothschild Asset Management, the assessment of sovereign debt is based, amongst other things, on a financial model for analysing issuers that takes account of both the budgetary and economic situation, as well as banking risk. Since 2015, we have decided to round out this internal model by incorporating extra-financial indicators.

Collaboration between the Sovereign Debt and Responsible Investment teams enabled us to select a list of around 30 indicators relating to ESG (Environmental, Social and Governance) criteria that are likely to have a favourable impact on long-term growth in the countries in question. They also must be able to supplement, reinforce or moderate the purely financial view, for which the criteria are, overall, more closely correlated to short- and medium-term growth.

The internal SRI rating model for sovereign debt issuers includes criteria linked to the three ESG pillars. For example:

- Greenhouse gas emission intensity in relation to energy consumption.
- The PISA score. PISA (Programme for International Student Assessment) is a worldwide study by the Organisation for Economic Co-operation and Development (OECD), performed every three years in OECD member and non-member nations, intended to evaluate educational systems by measuring 15-year-old school pupils' scholastic performance on mathematics, science, and reading.
- The ranking in Transparency International's Corruption Perceptions Index. This NGO has published since 1995 this annual ranking of countries based on "their perceived levels of corruption, as determined by expert assessments and opinion surveys". The index defines corruption as "the misuse of public power for private benefit".

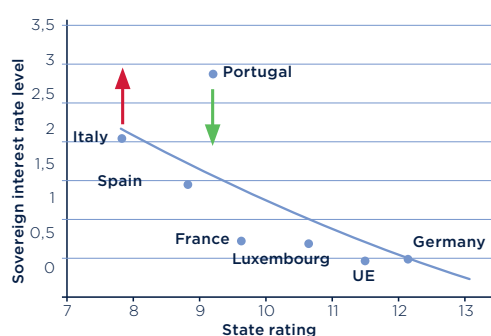
For each criterion, we establish an overall rating and a progression score based on each country's position in relation to the extremes and the average. The progression score rewards countries which are making efforts that we expect to have a positive impact on their development and their growth prospects.

The analysis takes account of potential budgetary effects to determine the effectiveness of sustainable development policies and offer a more complete vision for

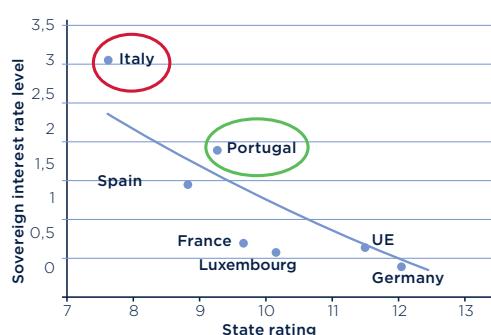
	ITALY	PORTUGAL
PISA	7.9	9.9
Spending/Pisa Score	9.4	14.1
Youth having left school early to work	5.8	7.6
Progress	10.3	20
Spending/% of higher education degrees	8.3	14.1
Students in science, mathematics, IT, engineering	8.7	12.1
% of women out of all registered students	20	16.7
Employment rate women/men	2.1	13.4
Underemployment rate of women workers	2	13.3
Corruption	0.9	6.9
Global Peace Index	6.7	18.1
Ease of doing business	7.1	10.8

10-YEAR RATE VERSUS 10-YEAR SRI RATING OF STATES

SEPTEMBER 2017



SEPTEMBER 2018



Source: Bloomberg ; Edmond de Rothschild Asset Management.

bond investors.

Over the long term, the ESG indicators selected are also designed to provide additional information to address the vital issue of a State's capacity to repay its debt.

This model is constantly evolving, and in 2017 we decided to align it with the United Nations' Sustainable

Development Goals for 2030. It enabled us to anticipate trends in sovereign rates. The table on the left highlights a few indicators that show a significant gap between Portugal and Italy.

Despite similar PISA scores, Portugal stands out by a more efficient education system from a budgetary point of view, as shown by the PISA score to education spending ratio. The proportion of STEM (Science, Technology, Engineering and Mathematics) students is higher in Portugal. Italy is the EU country with the largest percentage of women in higher education. Portugal is nevertheless well-positioned within this indicator. Conversely, Italy ranks at the bottom in terms of the integration of women into the labour market, as illustrated by their low employment rate compared to men and an underemployment rate of qualified women workers that is among the highest.

Regarding governance, there is also a wide gap between the two countries. Portugal, although it lags the Nordic countries, is better ranked than Italy in the corruption index published by Transparency International.

The Global Peace Index takes into consideration internal factors, such as the levels of a country's violence and crime, both domestic and external, such as its military spending and involvement in wars. Portugal is one of the safest countries in the world, far ahead of Italy.

The World Bank's "Ease of doing business index" ranks countries according to business-friendly regulations, protection of intellectual property rights, and the ease of administrative procedures. Regarding the latter criteria, Portugal falls within the average of eurozone countries, and above Italy.

Both the progression scores and the scores linked to the three ESG pillars boosted our analysis on Portugal last year, while the ESG scores and political uncertainty prompted us to be cautious with regard to Italy, as shown in the charts to the left.

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