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MarketView℠ Special Report

Sovereign Debt: Who's Next?
Introducing the Frontier Strategy Group Sovereign Debt Risk Index

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Existing sovereign debt risk indicators underestimate sovereign debt risk until it is too late and a government nears default. Executives need a stronger, forward looking tool that quantifies risk to help make better investment decisions. In response, Frontier Strategy Group (FSG) developed its Sovereign Debt Risk Index. The index indicates which countries are likely to default in the short term based on the underlying political and economic fundamentals that have historically driven defaults. We believe this index is one of the most robust risk rating systems available on the market. We hope multinationals, investors and governments will use this index to better understand the real drivers of default and corresponding default risks.

Increased risk of a new wave of sovereign defaults

To combat the effects of the global financial crisis, governments worldwide have implemented far-reaching stimulus plans. These plans pile additional debt onto already high levels of government borrowing. However, reduced corporate and household earnings have impacted tax revenue, a major source of government funding. As a result of these imbalances, corporations, investors and policy makers are concerned about the ability of a number of countries to service, repay and refinance debt.

Historically, major disruptions in global financial markets have been a catalyst for a wave of sovereign defaults. It is the Frontier Strategy Group view that the risk of a new wave of defaults has increased following the latest global financial crisis. This means that executives should be closely monitoring the sovereign debt risk of the countries they invest and operate in. If a country defaults on its debt, investments and operations in that country could deteriorate rapidly as defaults drive capital flight, currency devaluations, unemployment and sharp reductions in consumer spending.

To help executives track sovereign debt risk, FSG developed an index that ranks countries according to the likelihood of default on their sovereign debt. This index is based on the underlying economic and political fundamentals of default and is forward looking unlike credit default swap spreads and credit ratings, which have recently failed to identify default risk in an accurate and timely manner.

Sovereign Debt High Risk Watch List: 2010-2011

Ten key countries that members of the Council on Emerging Markets are closely tracking.

Country	Risk Score
Ukraine	Very High Risk
Greece	Very High Risk
Hungary	Very High Risk
Venezuela	Very High Risk
Cote d'Ivoire	Very High Risk
Spain	Very High Risk
Philippines	High Risk
Portugal	High Risk
Uruguay	High Risk
Argentina	High Risk

Author discusses sovereign debt risk on CNBC's "Street Signs."

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Why governments default

Defaults are a political decision made by national governments to reallocate scarce resources away from creditors. Because the political decision-making process is the ultimate driver of default, debt ratios alone are not an accurate indicator of future defaults. Debt ratios must be combined with an analysis of a country's tolerance to debt repayment. Tolerance is determined by a country's historic experience with borrowing and repayment.

Some countries are highly debt tolerant and have not defaulted despite high levels of debt to GDP. Other countries are intolerant, and make the decision to default relatively frequently. Debt intolerance can be a result of poor fiscal management, weak institutions or frequent changes in governance. Regardless of the reason for intolerance, a debt intolerant nation is much more likely to default again than a debt tolerant one, even if debt ratios are lower. Almost all emerging markets are debt intolerant.

Defaults by the numbers – Frontier Strategy Group's methodology

To identify the risk of default, FSG looks at four key drivers of defaults that fit into the economic framework laid out above:

1. Total debt to GDP: We add the most recent figures for domestic debt to external debt, less convertible foreign exchange reserves. We then divide this figure by GDP.

When measuring total debt to GDP, it is important to consider that external debt may not be a government's only or most important financial obligation. We calculate total debt as domestic debt plus external debt, as countries may have large internal obligations. Most analyses assume that domestic debt is subordinate to external debt and therefore only measure external debt levels. Our historical analysis of default shows that this assumption can be misleading. There are historical precedents where countries default on external debt while continuing to service domestic debt. In many countries, domestic debt may be closely tied to a government's political constituency, thereby driving the government to continue servicing this debt at the expense of foreign creditors.

The historical distribution of defaults increases sharply when debt intolerant countries reach a ratio of 40-60% total debt to GDP. As such, we consider this threshold the danger zone for most emerging markets.

2. Debt Tolerance: We counted the total number of times a country defaulted since 1800 or independence and divided this total by the number of years in that period.

3. Legal protections for investors: We use a World Bank index that ranks countries based on their ability to protect investors. Strong legal institutions factor into debt tolerance, as strong courts incentivize issuers to meet obligations by increasing the economic costs of default.

4. Long-Term Economic Health: This is an index that identifies countries that are in strong international economic standing and may have graduated from debt intolerance to debt tolerance. France and Germany, for example, have historically defaulted numerous times but have not done so since the formation of the European Community following World War II.

Frontier Strategy Group Sovereign Debt Risk Index:

The following table ranks countries that are at the highest risk of default based on our analysis.

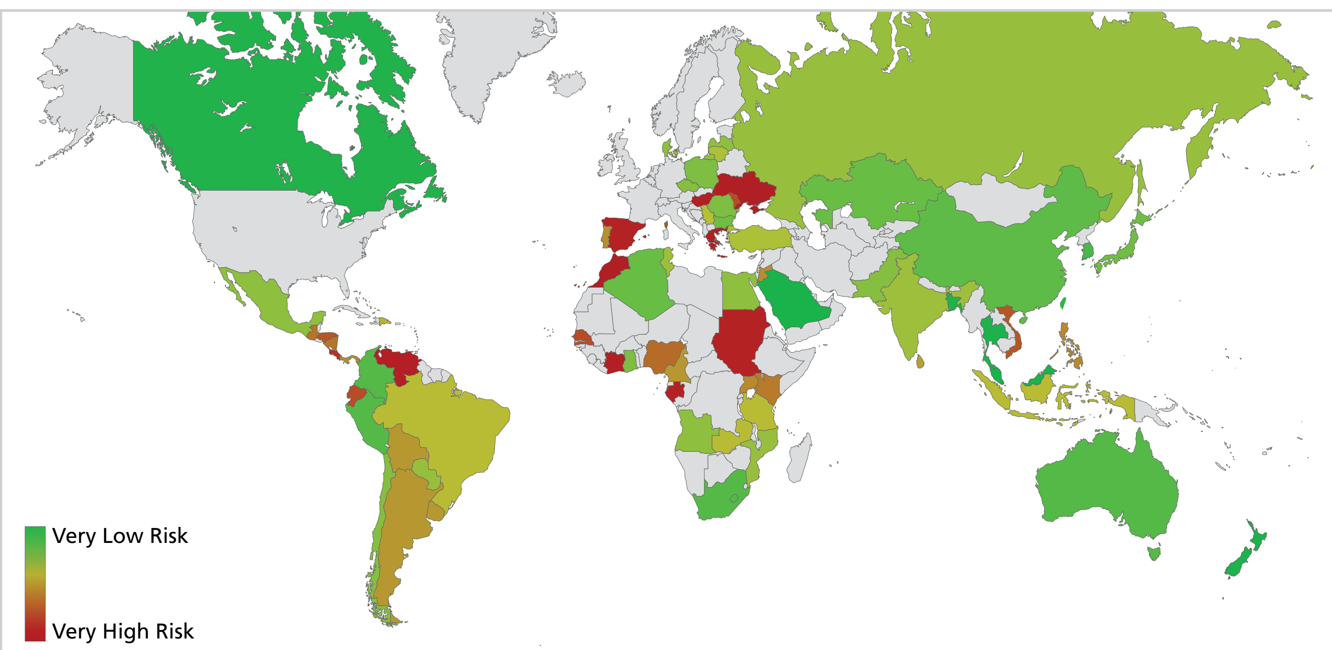
Country	Risk Score
Ukraine	5.8
Morocco	5.7
Greece	5.6
Hungary	5.5
Venezuela	5.4
Cote d'Ivoire	5.3
Gabon	5.2
Spain	5.2
Sudan	5.2
Costa Rica	5.1
Ecuador	4.8
Senegal	4.8
Moldova	4.8
Honduras	4.7
Vietnam	4.7
Nigeria	4.5
Nicaragua	4.4
Guatemala	4.4
Kenya	4.3
Philippines	4.2
El Salvador	4.2
Uganda	4.2
Seychelles	4.1
Panama	4.1
Jordan	4.1
Portugal	4.1
Uruguay	4.0
Bolivia	4.0
Argentina	4.0
Cameroon	4.0
Sri Lanka	3.9
Dominican Republic	3.7
Malawi	3.7
Indonesia	3.6
Brazil	3.6
Tanzania	3.6
Zambia	3.6
Serbia	3.5
Lithuania	3.4
Turkey	3.4
Tunisia	3.3
India	3.3
Mozambique	3.2
Russia	3.2
Finland	3.2
Paraguay	3.2
Mexico	3.1
Angola	3.1
Egypt	3.1
Denmark	3.1
Latvia	3.1
Pakistan	3.0
Czech Republic	3.0
Chile	3.0
Poland	2.9
Ghana	2.9
Romania	2.9
Bulgaria	2.8
Japan	2.8
Kazakhstan	2.7
Algeria	2.7
China	2.6
Australia	2.5
Peru	2.5
Colombia	2.5
South Africa	2.5
Korea	2.4
Taiwan	2.2
Mauritius	2.1
Bangladesh	2.0
Canada	2.0
Hong Kong	2.0
Thailand	1.6
New Zealand	1.6
Saudi Arabia	1.5
Malaysia	1.4
Singapore	1.3

Key	
5+	Very High Risk
4.0 - 4.9	High Risk
3.0 - 3.9	Medium Risk
2.0 - 2.9	Low Risk
1.0 - 1.9	Very Low Risk

Limitations of traditional sovereign debt risk indicators

1. Credit default swaps (CDS) offer limited insight into the health of underlying sovereign debt. The CDS market takes a shorter-term viewpoint on underlying sovereign debt because it is often used as a tool for traders who are typically seeking shorter-term gains. The CDS market for sovereign debt is also fairly illiquid due to its small size. While huge notional values of other derivatives contracts are frequently cited, CDS on sovereign debt would only comprise a small percentage of the underlying cash bond market. Greece, for example, which is subject to wide speculator demand, has CDS outstanding on sovereign debt only equivalent to 5% of the underlying cash bond market. The total size of the CDS market for Greek sovereign debt is only around $20 billion dollars, compared with $400 billion outstanding in Greek sovereign cash bonds. Pricing and spreads can be manipulated by large positions. Opacity is another critical issue when using CDS to assess sovereign risk. CDS are traded over-the-counter. There is no central clearing house or exchange. This means that data aggregators such as Markit must rely on banks, hedge funds and other market participants to disclose accurate data on pricing.

2. Traditional credit ratings administered by ratings agencies have proved to be another poor indicator of default risk. Ratings agencies tend to be reactive rather than proactive in adjusting to new trends. Changes in ratings lag changes in the underlying fundamentals as ratings agencies are cautious not to make statements outside of the consensus opinion. Ratings agencies also dissect governments' books from a micro level, but government accounting in many emerging markets is notoriously opaque and can be intentionally misleading in some cases. Greece, no longer considered an emerging market, is a good example. The Greek government was able to disguise a large amount of its debt through complex derivatives strategies. These were the same derivate contracts that were awarded robust credit ratings by the ratings agencies at the time of issuance. Ratings agencies have historically had a conflict of interest as they have been compensated directly by the issuer or through the issuer's investment bank.



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