Solactive Country Classification Framework

This guideline outlines the Solactive framework used to classify countries according to common economic, financial and institutional characteristics and to assess the respective levels of market development. Based on the framework presented below, countries included in the Solactive list of approved regulated stock exchanges can be classified as Developed, Emerging or Frontier.

To be classified as Developed or Emerging, countries must fulfill the listed criteria as displayed in the table below:

		Developed	Emerging	Frontier
Economic development	GNI per capita	Countries must fall into the top third of the World Bank country universe	Countries must fall into the top 90% of the World Bank country universe	Countries not falling into the top 90% of the World Bank country universe
	Human Development Index (HDI)	Minimum HDI score of 0.70 out of a total of 1 i.e. High Human Development	Minimum HDI score of 0.55 out of a total of 1 i.e. Medium Human Development	HDI score below 0.55 out of a total of 1 i.e. below Medium Human Development
Market size & liquidity	Market capitalisation	Countries must fall into the top 55% of the FactSet universe of stocks screened by domestic market capitalisation	Countries must fall into the top 70% of the FactSet universe of stocks screened by domestic market capitalisation	Countries not falling into the top 70% of the FactSet universe of stocks screened by domestic market capitalisation
	Average Daily Volume (ADV)	Countries must have minimum 6-month ADV of USD 50 mn* of the FactSet universe of stocks	Countries must have minimum 6-month ADV of USD 20 mn* of the FactSet universe of stocks	Countries with a 6-month ADV below USD 20 mn* of the FactSet universe of stocks
Capital market structure	Short selling	Must be allowed in the country	n/a	n/a
	Capital repatriation	No capital repatriation or surrender requirements on capital transactions	n/a	n/a
	Stable economic environment	Main currency of debt issuance, credit rating	n/a	n/a

*Adjusted annually to account for inflation

All countries that do not fall into Developed or Emerging markets according to the above framework, may be considered for classification as Frontier. Countries can only be classified under one category of market development i.e. a country classified as Developed cannot be Emerging or Frontier.

Solactive reviews its Country Classification on an annual basis in September. Countries that used to meet the binding criteria but that do not so at the time of the most recent annual review are considered for reclassification. Intra-annual extraordinary committee meetings will be held to respond to extraordinary events leading to a potential reclassification in between review periods.

Criteria of country classification

Economic development

GNI per capita is the standard measure used by the World Bank to classify countries according to their income levels. Solactive builds on data provided by the World Bank to measure relative levels of economic development to classify countries. According to the above framework, as of September 2017, countries with a GNI per capita of minimum USD 19,700 can be considered for classification as Developed, and a GNI per capita of USD 1,380 as Emerging.

Data source: World Bank www.worldbank.org

The Human Development Index (HDI) is a composite measure of life expectancy, level of education and economic development published annually by the United Nations Development Programme. The UN classifies 188 countries according to their HDI in Very High Human Development (1 – 0.800), High Human Development (0.700 – 0.799), Medium Human Development (0.550 – 0.699), Low Human Development (≥ 0.549).

Data source: United Nations Human Development Reports hdr.undp.org

Markets size & liquidity

Size and liquidity of markets are typically associated with ease of trade and market efficiency. The degree of country development tends to be associated with larger and more liquid capital markets. For this reason, Solactive calculates the market capitalization of the domestic stock exchanges by taking into account companies' primary listing. This is done in two steps. First, we determine to which country a company belongs by screening their primary listing. Second, we calculate the combined market cap of all companies that are part of a country. In addition, countries' liquidity is measured by 6-month Average Daily Volume (ADV). According to the above framework, as of September 2017, countries with a minimum market capitalization of USD 41.8 bn can be considered for classification as Developed, and of USD 11.6 bn for classification as Emerging.

Data source: FactSet www.factset.com

Capital market structure (relevant for Developed classification)

In the context of Developed countries, factors such as short selling and ease of capital movements are assessed in order to understand the sophistication of capital markets.

Short selling, or the possibility of selling a security that is not currently owned by the seller, is relevant for risk management practices and speculation. Short selling is associated with market efficiency and gives an indication of the level of development and flexibility of the stock market.

To check for ease of transactions in the global financial economy, the presence of capital repatriation and surrender requirements is investigated. These relate to the obligation of residents to repatriate proceeds of international capital transactions. Countries with less restrictions tend to be more integrated in the global financial economy.

Data source: International Monetary Fund, Annual Report on Exchange Arrangements and Exchange Restrictions – IMF www.imf.org

Additionally, the main currency of debt issues, whether domestic or hard currency, is taken into account, as well as the overall issuance activity. The ability to raise debt capital denominated in domestic currency is an indicator of economic stability of a country. Also, the credit rating of each country is taken into consideration in order to gain more insight into the specific economic environment.

Disclaimer

In classifying countries according to common economic, financial and institutional characteristics, Solactive uses a variety of data sources as set out above. Solactive does not claim or imply that any of said data sources endorse the use of these data. Solactive does not offer any express or implicit guarantee or assurance either with regard to the classification of countries nor the accuracy of the method described herein. To the extent possible, Solactive waives any liability for reliance upon the country classification system and its results.